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No Path But One: Law School Survival in an Age of Disruptive Technology

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By Michele R. Pistone and John J. Hoeffner

The distinguished law professor Maurice Rosenberg once advised that, "in forecasting the future, one should undoubtedly pick a target date far enough ahead to assure that mortality will get here first."[1] This wise advice should not go completely unheeded, so we'll begin prudently, with a prediction that by 2050, legal education in the United States will bear little resemblance to that received by students today. Less prudently, we predict that American legal education will undergo a fundamental change within 20 years, and that the fact and direction of the oncoming change will be undeniable by 2020. This article explains why a once-in-a-century change is occurring now, and discusses what we contend is the only way law schools can respond successfully to the pressures for change.

Our article follows and is indebted to the work of Bill Henderson,[2] Brian Tamanaha,[3] Richard Susskind,[4] Thomas Morgan,[5] David Thomson[6] and many others.[7] Collectively, these scholars have explained and highlighted the impact of recent economic and technological developments on the practice of law, drawn out the

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[1] Maurice Rosenberg, *The Federal Courts in the 21st Century*, 15 NOVA L. REV. 105, 105 (1991).
[2] *See, e.g.*, William D. Henderson, *A Blueprint for Change*, 40 PEPPERDINE L. REV. 461 (2013).
[3] *See* BRIAN Z. TAMANAHA, FAILING LAW SCHOOLS (2012).
[4] *See* RICHARD SUSSKIND, THE END OF LAWYERS? RETHINKING THE NATURE OF LEGAL SERVICES (2009).
[5] *See* THOMAS D. MORGAN, THE VANISHING AMERICAN LAWYER (2010).
[6] *See* DAVID I.C. THOMSON, LAW SCHOOL 2.0: LEGAL EDUCATION FOR THE DIGITAL AGE (2009).
[7] The many others include a great number of law professor scholar-bloggers; several other scholars, such as Philip Bobbitt and Elizabeth Eisenstein, whose writing does not directly address law school reform, but who have nonetheless influenced our thinking about how technological change can transform social institutions; Clay Christensen, who has written on the future of higher education, but who would have been an influence even if he had not, due to his work concerning the difficulties of managing institutions during periods of disruptive change; and numerous other thinkers, including educators, entrepreneurs, and practicing attorneys.

implications of these developments for the legal services job market, and made the case that changes in the world of legal practice require the hidebound world of American legal education to change and reform many of its own practices. To the extent that the writings of members of this group touch upon the need for law school reform, their work is perceived as radical – too radical – by many law professors; in contrast, we think their work is insightful yet, given the current circumstances, not radical enough.

To begin to convey the differences between our views and the views of many legal education reformers, allow us to relate a joke that Bill Henderson alludes to in his recent article in the *Pepperdine Law Review*. Two friends are hiking in the woods when they come upon a growling bear. The two react instinctively and begin to run away; the bear follows. One of the hikers shouts "why are we running? The bear is faster than us." The other gasps, "I don't have to outrun the bear; I just have to outrun you." Professor Henderson, discussing the urgency of reform in an era of declining enrollments, recasts the punch line as "[m]y school or your school doesn't have to outrun the bear, just the other law schools."[8]

In our version of the joke -- converted by us into a fable -- the two hikers are named Borders and Barnes, and as they are fleeing from the bear they pass a battalion of apparently very ill-fed Amazon warriors, who stand their ground as the bear approaches. A minute later, Borders and Barnes hear some shouting; the hikers turn and see the warriors feasting so greedily upon the bear that they seem to be growing bigger and stronger by the second. As the last bone is gnawed away, the warriors set their gaze upon the two hikers. "I'm still hungry," says the biggest Amazon, and

[8] Henderson, *supra* note 2, at 468.

suddenly Borders and Barnes are filled with dread as they realize they labored to escape the wrong predator.

We predict that traditional law schools will share the sad end of our fable's Borders and Barnes, should the schools fail to understand that technology will enable – indeed, is now enabling -- new legal education competition to emerge. The new competition will be highly flexible, unencumbered by expensive legacy costs and, because it will reside mainly online, so scalable[9] that no traditional law school will be immune from its impact.[10] In undergraduate college education, venture capitalists and universities themselves have poured substantial resources into various forms of distance learning,[11] and several state governors have pressured the public universities of their respective states to utilize distance learning to provide a college education at greatly reduced cost.[12] The same forces eventually will direct or increase their attention

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[9] Kevin Carey, *The Siege of Academe*, WASHINGTON MONTHLY, Sept./Oct. 2012, at 34, 39 ("*scale* is the oxygen feeding the combustible mix of money, ambition, and technology-driven transformation in" Silicon Valley (emphasis in original)).

[10] The threat that would be posed to law schools from the emergence of such competition can hardly be overestimated. As Harry First's magisterial study makes plain, the robustness of the law school business model depends upon the suppression of voracious competition for growth between peer schools. *See generally* Harry First, *Competition in the Legal Industry (I)*, 53 N.Y.U. L. REV. 311 (1978) [hereinafter First (I)]; Harry First, *Competition in the Legal Industry (II): An Antitrust Analysis*, 54 N.Y.U. L. REV. 1049 (1979) [hereinafter First (II)]. Having succeeded after a long struggle, *see* First (I) at 332-400, in creating an "industry [that] is nondynamic and inefficient," *see* First (II) at 1049 – one that has given law professors the freedom to enjoy the "'best of all monopoly profits [:] a quiet life'" in which they are able to pursue non-pecuniary interests of their own choosing, *see* First (I) at 322-26, 339, 401 (the latter page quoting J.R. Hicks, *Annual Survey of Economic Theory: The Theory of Monopoly*, 3 ECONOMETRICA 1, 8 (1935)) – law schools are as vulnerable to a more predatory business environment as the dodo was to an increasingly predatory natural environment.

[11] Carey, *supra* note 9, at 35 (noting that venture capital "investment in education technology companies increased from less than $100 million in 2007 to nearly $400 million" in 2011); Melissa Korn & Jennifer Levitz, *Online Courses Look for a Business Model*, WALL ST. J., Jan. 2, 2013, at B8 (noting that online providers Coursera and Udacity each have received more than $20 million in venture capital funding, and that edX was "founded with $30 million each from Harvard University and Massachusetts Institute of Technology"); Tamar Lewin, *Universities Reshaping Education on the Web*, N.Y. TIMES, July 17, 2012, at A12 (noting the decisions of sixteen major universities, including three located outside the United States, to offer massive open online courses through Coursera).

[12] *See, e.g.*, Kevin Kiley, *A $10,000 Platform*, INSIDE HIGHER ED (Nov. 30, 2012), http://www.insidehighered.com/news/2012/11/30/texas-florida-and-wisconsin-governors-see-large-

to legal education.[13] When they do, traditional law schools had better not be focused merely on remaining one step ahead of competitor schools – if they are, they are competing only for the privilege of being eaten last. New competitors will prevail, and the traditional schools will be relegated to the past, like the rival street gangs in Martin Scorcese's *Gangs of New York*, who find their climactic neighborhood battle of clubs and knives disrupted by the overwhelming firepower of Navy ships and rifle-bearing Army troops, unsentimental outsiders making use of the newest technologies of the day.

Gangs of New York ends with the lament of the old guard that the triumph of new forces would become so complete that "for the rest of time, would be like no one ever knew we were here."[14] Is there anything traditional law schools can do to avoid a similar fate? The question is in earnest, and the more that legal educators think it is not – that it simply cannot be – the more distressingly certain the answer will become.

In our view, there is one opportunity to save the traditional place-based law school. Ironically, to seize that opportunity law schools must finally and decisively reject what has for over a century sufficed in legal education, and must commit themselves instead to an educational model that, to a greatly heightened degree, attempts to remedy flaws in the traditional school that have been identified over and over again in a series of measured and independent studies ranging across almost a century.

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overlap-higher-education-platforms (describing efforts by the governors of Texas, Florida and Wisconsin to develop low-cost degree options; "[a]ll three have made calls for reducing the cost of producing a degree through online courses and competency-based assessment").

[13] Indeed, the future is arriving fast. As we were finishing this article, Harvard Law School Professor William Fischer, the Director of the Berkman Center for Internet and Society, began to offer an online course in copyright law. *See* https://www.edx.org/courses/HarvardX/HLS1x/2013_Spring/about. Offered through edX, the Spring 2013 course enrolled 500 students from around the country, all of whom were selected through an application process. Each student agreed to "devote eight hours per week to learning and discussing the material." *Id.*

[14] GANGS OF NEW YORK (Miramax Pictures 2002).

We reach this conclusion via the following chain of reasoning. To make a long story short (the long version is the full article), law schools have strengths and weaknesses, each of which, in general, have been long understood. We discuss both in, respectively, Section I (strengths) and Section II (weaknesses). The shortcomings, namely, an extremely narrow focus that leaves most practical skills completely ignored or given only cursory treatment, has been defended in recent years more often out of necessity than out of conviction. Law school is expensive, and to teach more practical skills, the argument goes, would make it more expensive still. In the current environment, the argument continues, such a course is simply not feasible.[15]

The problem with this viewpoint, which we challenge later in this introduction and elsewhere too, is that in the service of an assumed practicality, it dooms law schools both to mediocrity and to extinction.[16] Professor Henderson is correct when he states that "the most serious problem [law schools face today] is inadequate quality."[17] But the situation is more universally dire for law schools than he imagines, and requires a more unified solution.

When we were young, a documentary film named *Scared Straight!* garnered considerable attention and, eventually, an Academy Award.[18] It featured inmates from Rahway State Prison in New Jersey and a group of juvenile offenders; the inmates were

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[15] *See, e.g.*, John S. Elson, *Why and How the Practicing Bar Must Rescue American Legal Education from the Misguided Priorities of American Legal Academia*, 64 TENN. L. REV. 1135, 1136, 1138 (1997) (stating that although "most law school teachers would agree that law schools barely scratch the surface in teaching students what they need to know for the initial competent and ethical practice of law," "status quo defenders [say that] law schools are strapped for funds as it is and cannot afford to expand their curricula to better prepare students for their professional roles").

[16] *See infra* Section IV(A)(3) & (4) and IV(B)(2).

[17] Henderson, *supra* note 2, at 494.

[18] *Scared Straight!* (Golden West Television 1978). *Scared Straight!* was awarded its Academy Award in the category of Best Documentary Feature. *Scared Straight! (1978)*, N.Y. TIMES, http://movies.nytimes.com/movie/43074/Scared-Straight-/overview.

charged both with serious crimes and with the task of frightening the juveniles so badly that they, the juveniles, would never violate the law again. After having reviewed the strengths and weaknesses of law schools in Sections I and II, Section III follows with our version of *Scared Straight*, as in it we briefly illustrate the speed with which the internet has unsettled and upended industry after industry, including industries many times larger and richer than legal education. We then assert that the internet is likely to continue to propel unsettling change of this type for some time, and that law schools will not be immune.

Later in the article we rebut several counter-arguments to our view;[19] however, to forestall misunderstanding, we address the most consequential counter-argument now. That argument proceeds as follows: "Law schools have, more or less, a government-granted monopoly over legal education that is enforced through bar rules that limit admission to graduates of approved schools and through accreditation rules that, among other things, limit distance learning to a few courses.[20] Bookstores did not have

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[19] *See infra*, Section IV(A) (addressing arguments based upon past accomplishments, perceived quality, regulatory protections, and the belief that their position as long-dominant incumbents in the legal education market provides traditional law schools the luxury of time to formulate a response to a possible internet threat).

[20] Current ABA accreditation standards permit law schools to "offer credit toward the J.D. degree for study offered through distance education" during the second and third year of study. ABA Standards for the Approval of Law Schools 2012-13, Standard 306. Distance education is characterized in the Standards "by the separation, in time or place, between instructor and student" and applies to both synchronous (courses in which the teacher and all students participate at the same time but are separated in space) and asynchronous (courses in which the teacher and students do not all participate or interact at the same time) models of distance learning. Standard 306(b). A course does not qualify as a "distance learning" course under the Standards if "two-thirds or more of the course instruction consists of regular classroom instruction," even if the other one-third of the course instruction includes "substantial on-line interaction or other common components of 'distance education' courses." Interpretation 306-3. For courses that do fall within the distance learning definition, the Standards limit the number of credits that can be earned by any student through distance learning during a single semester and throughout the J.D. program to four credits and twelve credits, respectively. Standard 306(d). These limitations are the subject of some debate and the Standards Review Committee is currently considering proposed changes that would increase the cap to 15 credits of distance education and would permit a second- or third-year student to take up to 15 credits within a single semester. Proposed Standard 310(f), http://www.americanbar.org/content/dam/aba/migrated/2011_build/legal_education/committees/standards

anything like those protections – law schools accordingly are not similarly situated – they are safe from internet-based competition -- the comparison to other industries is, therefore, inapt." To the extent that this argument suggests that current regulatory advantages obviate the need for law schools to make fundamental changes in order to assure their survival against current or future online competition, we believe it is incorrect.

As other industries have discovered, internet companies do not merely emerge as new competitors on a particular playing field, but they also have demonstrated the ability to change the rules governing what takes place on that field.[21] As the cost

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_review_documents/july2011meeting/20110621_ch_3_program_of_legal_education_clean_copy.authcheckdam.pdf.

[21] For example, "'Google's leadership doesn't care terribly much about precedent or law.'" STEVEN LEVY, IN THE PLEX: HOW GOOGLE THINKS, WORKS, AND SHAPES OUR LIVES 353 (2011) (quoting a lawyer for Google). Instead, Google "observe[s] traditional business and intellectual property boundaries by driving its search engine over them." Jack Shafer, *Tech Brigands*, SLATE, April 5, 2011, at http://www.slate.com/articles/news_and_politics/press_box/2011/04/tech_brigands.single.html. Google's approach – and the similar approach taken by other technology firms – would not have worked in other eras; when "technological change was slow, [incumbent market leaders] could use the regulatory apparatus . . . and market position to channel and control innovation." *Id*. But the pace of change is slow no more and, in this accelerated environment, incumbents find it much more difficult to "co-opt and shackle" businesses "who have invented and then exploited wave after wave of new technology." *Id*. *See* Amy Chozick, *Judge Rules Against Viacom in Copyright Suit Against YouTube*, N.Y. TIMES, Apr. 18, 2013 (district court labels Viacom's interpretation of copyright law "anachronistic" in rejecting suit against Google's YouTube website). *See also* Jeff Bercovici, *Holy Cow: Two of the Four Big TV Networks Are Considering Going Off the Air*, Apr. 8, 2013, http://www.forbes.com/sites/jeffbercovici/2013/04/08/holy-cow-two-of-the-big-four-tv-networks-are-considering-going-off-the-air/ (noting "existential" threat posed to traditional television networks by "Aereo, which uses a novel interpretation of copyright law to capture and stream free over-the-air TV signals"); Brian Stelter, *Aereo Wins a Court Battle, Dismaying Broadcasters*, N.Y. TIMES, Apr. 2, 2013, at B3 (noting that Aereo 's novel interpretation of the law has so far prevailed in court). *See also WNET, Thirteen v. Aereo, Inc.*, No. 12-2786-cv (2d Cir. Apr. 1, 2013) (denying the networks' motion for a preliminary injunction on the ground that they are unlikely to prevail on the merits).

Unfortunately for law schools, these swashbuckling technology businesses – utilizing "cheap processors, cheap data storage, . . . webcams, . . . Wi-Fi, smartphones and other ultraportable computers, broadband Internet, and mobile broadband [and aided additionally by Moore's law, are] coming to take over higher education." *Id*. It may be comforting to think that legal fields are different but developments so far suggest the thought offers false succor. Thus, as Professor Ben Barton has pointed out, the "most powerful tool" that the online legal document company, Legal Zoom, has utilized against the "bumps in the road" caused by unauthorized practice of law charges is to "simply drive[] through them, getting bigger and more prevalent all the time," Benjamin H. Barton, *A Glass Half Full Look at the Changes in the American Legal Market*, 35 INT'L J. L. & ECON __ (2013) (forthcoming), exactly the same strategy pursued by Google and other technology companies. For more on why law schools cannot

advantages of distance learning become more pronounced, as distance learning techniques and technologies improve, as distance learning companies become larger and more well established, and as the distance learning experience becomes more commonplace among undergraduates, the chance that the regulatory moat protecting law schools will be left undisturbed will decrease – all else remaining equal.

The chance that the regulatory status quo will prevail – again, all else remaining equal – begins to approach zero when one realizes that, by their choice to adhere to a basic curriculum and pedagogic approach that is little changed since the 19th century, law schools have substantially increased their vulnerability to internet competition. Some industries, of course, are little bothered by the emergence of digital culture. If a barber has nightmares, they probably are not internet based. The problem for law schools – and the reason that the internet could become a living nightmare for them – is that the analytical and doctrinal training law schools have emphasized for more than a century is precisely the legal training that is most amenable to being taught over the internet. Indeed, in every school, the essence and greater part of the great majority of courses could effectively (or serviceably)[22] be replicated online. Under these

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assume that their regulatory protections afford them a safe harbor against incursions by alternative legal educators, see *infra*, Section IV(A)(3).

[22] We will not quarrel if you would prefer to replace "effectively" with "serviceably" or some other word that would more strongly imply the inferiority of online courses. It is worth pointing out, however, that some observers would deem this concession unduly generous, given the existence of recent studies indicating that online education at least matches classroom teaching in promoting desired learning outcomes. *See, e.g.*, Department of Education, Evaluation of Evidence-Based Practices in Online LearningA Meta-Analysis and Review of Online Learning Studies (Sept. 2010), at xiii-xiv, http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf (a meta-analysis, prepared for the Department of Education, of approximately 50 empirical studies that contrasted the effects of online learning with those of face-to-face instruction; the meta-study, overwhelmingly a study of adult learners, found that students who took online or blended courses online did as well or better than those who attended only face-to-face classes); Steve Lohr, *Study Finds That Online Education Beats the Classroom*, N.Y. TIMES, Aug. 19, 2009, http://bits.blogs.nytimes.com/2009/08/19/study-finds-that-online-education-beats-the-classroom/. *See also* Peter Navarro & Judy Shoemaker, *Performance and Perception of Distance Learners in Cyberspace*, 14 AM. J. DISTANCE EDUC. 15 (2000) (finding that

circumstances, as online education develops elsewhere, law schools will find that they cannot credibly or persuasively make or maintain the argument that they should be insulated from online competition.

That is the bad news for law schools. The good news is that circumstances can change – all else does not have to remain equal. Law schools have the luxury of having a choice – which may remain available only a short time – as to whether, in the age of the internet, they want to become more like barbers or stay, vis-à-vis their vulnerability to internet competition, like traditional booksellers.

The first step to choosing survival begins with the candid admission that a uniformity of approach and a system-wide concentration on an extremely limited range of legal skills has assured mediocrity in legal education,[23] in the same way that a golf school would be mediocre if it presumed to provide a "tournament ready" golf education but taught only putting.[24] The existence of a well-regarded, century-long line of criticism of law schools on precisely these grounds lends this admission a fair amount of credibility. Such an admission paves the way for schools then to argue that the

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undergraduate students who studied economics online did as well, or better than, their counterparts who attended face-to-face classes). In all events, even merely "serviceable" online versions of courses now taught in person may well be improvements if considered in a broader sense – they are likely, for example, to be less expensive and more convenient than in-person classes, and additionally can (and should) free classroom space for other educational uses. Moreover, this article is concerned with the future of legal education. In a conversation about the future, it would not have been wise in 1910 to dismiss films as inherently inferior to plays based on the early days of film, or to have dismissed motorized vehicles because in the beginning of their manufacture they broke down more and were less reliable than horses. History will deliver a similar refutation to those who, in 2013, dismiss online education.

[23] Rogelio Lasso, *From the Paper Chase to the Digital Chase: Technology and the Challenge of Teaching 21st Century Law Students*, 43 SANTA CLARA L. REV. 1, 15 (2002) ("There is almost universal agreement that law schools do not adequately prepare students for the practice of law."). *See* R. Michael Cassidy, *Beyond Practical Skills: Nine Steps for Improving Legal Education Now*, 53 B.C. L. REV. 1515, 1520 (2012) ("traditional law school pedagogy based on the Langdellian case-method teaches a very specific and particular type of analytical reasoning").

[24] This assessment would be accurate even if the school taught putting very well, and even if insisted that financial constraints prevented it from teaching more of the game.

accreditation of online law schools, whose ambition is simply to replicate the curriculum of the traditional school, is undesirable because it necessarily would perpetuate and extend mediocrity – and this at the very moment, the argument must continue, that traditional law schools have, for the first time, the potential to move beyond mediocrity. Indeed, if law schools hope to maintain credibility throughout the entire line of this argument, by the time the question of accreditation of online schools arises seriously before law school accreditors – and that day is coming soon – law schools must already have taken substantial steps toward realizing their potential to move beyond mediocrity.

What is the source of this new potential? Another irony: the same technologies that threaten law schools also could be employed to help protect them from "pure" online competition. The next paragraph explains how this could be so, after beginning with a discussion of what law schools must do to raise the quality of the education they provide.

In brief, traditional law schools must move the norm in legal education to a place where online schools cannot follow, by mandating the extensive teaching of the many practical lawyering skills that require, to be taught effectively, face-to-face, in-person interactions. As noted earlier, such an attempt to improve the quality of legal education brings with it cost objections. The realities of cost constitute a measure of the challenge that must be undertaken, but they cannot be allowed to stall legal education reform efforts, for adherence to the mediocrity of the status quo will work only to accelerate the eventual triumph of online law schools. Does the need for reform and the reality of cost pressures place law schools between a rock and a hard place? Yes it does, and to deny the dilemma is to engage in wishful thinking. What law schools face, in the end, is a real life testing of the aphorism that "necessity is the mother of invention." The only

way forward is to innovate. In this day and age, the locus of innovation is the internet. Considering all of these factors together, the mission becomes plain: at the same time that law schools expand their clinical and other experiential course offerings, they also must dedicate themselves to migrating online whatever educational content can be migrated online.[25] They can pursue this objective alone and in a consortium of like-minded schools. They can utilize publicly available web materials, with the professor acting as an aggregator and guide, and they can develop original materials. There are many options, but the ultimate task is not optional: law schools must utilize the internet to drive down costs.

Although this end is commonly achieved in business, success is not inevitable. Reaching the goal will require enormous effort and creativity, and the firm rejection of some comforting shibboleths. Accordingly, Section IV begins with some advice on how to foster, within a law school, creative thinking about the school and its educational mission (to be followed by creative action), and discusses habits of thought that could undermine a creative response to the current situation. *See infra*, Section IV(A). The second half of Section IV then concludes the article with a number of suggestions designed to keep law schools on the right path as they progress toward the necessary goal of making law school both more broadly practical and more internet-based. *See infra*, Section IV(B). Our approach, we note again, not only will raise the quality of a law school education, but is the only way to ensure the survival of the only institution capable of providing an enhanced legal education, the place-based law school.

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[25] *See* Michele R. Pistone, *The Future of Higher Education*, YOUTUBE, delivered Mar. 28, 2012, published Apr. 12, 2012, http://www.youtube.com/watch?v=nsiQ6-JTOWM (TEDxVillanovaU) (stating that all educational content that can be put online should be, and that the campus should be utilized for teaching content that cannot effectively be taught online and for in-person assessments of student skills, with negotiation, counseling and interviewing specifically noted as skills a law school should teach and assess in person).

I. What Law Schools Do

Law schools have prospered for more than a century. They prospered initially because they successfully addressed several serious problems that plagued the prior system of legal education. In a time of emerging consensus that this record of prosperity is in jeopardy, it is important to understand what those problems were and how law schools fixed them.[26] Such an understanding is vital to the effort to assess correctly how the current system should be reformed, for it highlights the possible costs of change. Attempted reforms that take for granted old successes, or that are ignorant of them, run a great risk of reintroducing old problems. As we shall see, our historical review indicates particularly strongly that any reform that seeks to substantially replace full-time legal educators with working attorneys should be viewed with great skepticism.

We begin our search for the lessons of history by exploring the system of legal education that today's dominant law school model triumphed over and replaced. Prior to the American Revolution, "[t]here were no law schools in the colonies."[27] This exclusion of law from the university setting was no mere oversight; following the example set by British universities, "American institutions of higher learning long resisted including [law] among their academic departments."[28] A principle reason for the exclusion was that legal training was viewed as entirely vocational, not academic, in nature. "In this view law, unlike many other academic departments, aspired neither to

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[26] *See* Susan Katcher, *Legal Training in the United States: A Brief History*, 4 WIS. INT'L L.J. 335, 335 (2006) ("It is essential to have a historical context, even a brief one, to appreciate the current developments and concerns in the training of lawyers in the United States.").

[27] LAWRENCE M. FRIEDMAN, A HISTORY OF AMERICAN LAW 84 (1st ed. 1973). *See* ALBERT J. HARNO, LEGAL EDUCATION IN THE UNITED STATES 18-19 (1953) ("What colleges there were did not offer courses in law and there were no independent schools.").

[28] Peter H. Schuck, *Law and the Study of Migration*, *in* MIGRATION THEORY: TALKING ACROSS DISCIPLINES 239, 239 (Caroline B. Brettell & James F. Hollifield eds., 2d ed. 2008).

develop new objective knowledge about the world nor to recover old cultural artifacts and meanings."[29] In sum, legal training was not included within the academy because, pursuant to these understandings, it did not deserve to be.[30]

In the absence of university training, an aspiring attorney could attend the Inns of Court, in London, where he (it was always a "he") would receive a "primarily practical, not jurisprudential," legal education.[31] More commonly, an aspiring lawyer served an apprenticeship as a clerk to a practicing member of the bar.[32] In an apprenticeship, an established lawyer would undertake the obligation to school the apprentice in the life of a lawyer and in the ways of the law; in return, "[t]he clerk generally paid the attorney a sum of money and was required to perform" assorted duties of varying relevance to the practice of law.[33] The education provided by an apprenticeship was a practical one, although the quality and quantity of that education varied wildly.[34]

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[29] *Id*.

[30] The American universities' rejection of legal practice as a fit subject for teaching echoed an earlier rejection in England. *See* Jordan Furlong, The Return of the Apprentice: New Lawyer Training Models for the 21st Century, at 5, http://www.law.georgetown.edu/academics/centers-institutes/legal-profession/documents/upload/conference-papers-march-22-furlong.pdf (noting that in the 18th century and before, "respected institutions like Cambridge and Oxford declined to teach the practice of law, a trade they considered beneath their loftier callings"). *See also* Ralph Michael Stein, *The Path of Legal Education from Edward I to Langdell: A History of Insular Reaction*, 57 Chi.-Kent L. Rev. 429, 435 (1981) (stating that the "robed dons of [Oxford and Cambridge] saw the common law as a trade unworthy of serious academic consideration"). Even after schools of law were formally accepted in the academy, there is evidence that attitudes remained dismissive for many years. *See* 2 CHARLES WARREN, HISTORY OF THE HARVARD LAW SCHOOL AND OF EARLY LEGAL CONDITIONS IN AMERICA 362 (Lewis Pub. Co. 1908) (noting a remark by Harvard University President Eliot in 1891 that at a Harvard Board of Overseers meeting it was said that "[t]he College stands for philosophy, for literature, for humanities, for the progress of mankind; as to the Law School, the Medical School, they are bread and butter" (Internal quotation marks omitted)).

[31] FRIEDMAN, *supra* note 27, at 20.

[32] Stein, *supra* note 30, at 439.

[33] *Id*. at 440. *See also* ROBERT STEVENS, LAW SCHOOL: LEGAL EDUCATION IN AMERICA FROM THE 1850S TO THE 1980S 10-11 n.5 & 30-31 n.28 (1983).

[34] The weaknesses of the apprentice model of lawyer training are discussed in more detail later in this section. *See infra*, notes 70-88, 100-101 and accompanying text.

At the beginning of the 19th century, with American attendance at the Inns of Court having decreased,[35] "apprenticeship in the law office of a practicing lawyer" was "by far" the most usual method of legal instruction.[36] Law schools, as we think of them today – as mainly university-affiliated, scholarly institutions – did not exist in 1800.[37] By that time, however, two late 18th century developments had begun to prepare the way for the eventual integration of law schools into academia. One development was the appointment of a scattered handful of professors to teach law at various colleges across the country.[38] While these appointments did constitute a small breach in the wall separating law from academia, they "were not intended to, and did not, provide a complete or practical education for students seeking to become attorneys."[39] Indeed, "some of the [law professorships] were not meant for lawyer training at all,"[40] but were regarded as providing "'useful entertainment for gentlemen of all professions.'"[41]

The second and more significant development was the emergence of independent private law schools – "an offspring of the office-apprenticeship system" – in approximately 1784.[42] These schools were "exclusively a creation of practitioners," and

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[35] Stein, *supra* note 30, at 435, 442. The occurrence and then success of the American Revolutionary War was a large reason for the decrease in American attendance at the Inns of Court, but so was the fact that "by 1750 the Inns of Court were in a decline, at least with respect to their educational function, from which they never completely recovered." *Id*.

[36] Stephen R. Alton, *Roll Over Langdell, Tell Llewellyn the News: A Brief History of American Legal Education*, 35 Okla. City U. L. Rev. 339, 342 (2010).

[37] The first American law degrees were granted in 1793, by the College of William and Mary. Furlong, *supra* note 30, at 5. The education received "more closely resembled classical education (Cicero, Aristotle, Adam Smith, etc.) than legal education as we know it." *Id*. William and Mary later closed its law school during the Civil War, and did not reopen it until 1920. *The William & Mary Law Library: A History*, http://law.wm.edu/library/about/history/.

[38] Stein, *supra* note 30, at 442. *See, e.g.*, STEVENS, *supra* note 33, at 15 n.47 (noting law lectures given by future Supreme Court Justice James Wilson at the University of Pennsylvania in 1790-91).

[39] Stein, *supra* note 30, at 442.

[40] FRIEDMAN, *supra* note 27, at 280.

[41] *Id*. (quoting James Wilson).

[42] HARNO, *supra* note 27, at 28-29 (stating that although the starting date of the first such school, Litchfield Law School, is "ordinarily given as 1784," this is more an approximation than a certainty, as the actual starting date "is difficult to fix").

originated "in purely practical needs and considerations."[43] Whatever their shortcomings, they established the model of the law school as a distinct and economically viable institution. Universities eventually took notice.

Indeed, Harvard Law School – the oldest continually operating law school in the United States – was founded in 1817, following an express recommendation by Harvard Professor Isaac Parker that Harvard establish a "'respectable institution'" of the sort exemplified by Litchfield Law School, the leading independent school of the era.[44] Yale Law School's connection to the independent schools that grew out of the law practices of individual practitioners was even more direct. Its origins are in a loose affiliation that Yale University began with the independent New Haven Law School in the 1820's. Over the course of two decades, the affiliation strengthened until law students finally began receiving Yale diplomas in 1843.[45]

The impact of these new, university-affiliated law schools on legal education was minimal in the early days. Harvard for many years operated with only two faculty members,[46] and growth was very slow. When Christopher Columbus Langdell was appointed to the Royall professorship and selected as Harvard Law School dean in 1870,[47] for example, he became one of only three professors on the law faculty.[48] Yale,

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[43] *Id*. at 30 (internal quotation marks omitted).
[44] *Id*. at 36-37 (quoting Parker's inaugural lecture at Harvard). Parker was the Chief Justice of the Supreme Judicial Court of Massachusetts when he was appointed Professor of Law at Harvard in 1815, becoming the first holder of a Chair bequeathed by Isaac Royall, who had died in 1791. *Id*. at 35.
[45] History of YLS, *available* http://www.law.yale.edu/about/historyofyls.htm.
[46] Michael von der Linn, *Harvard Law School's Promotional Literature, 1829-1848*, 13 GREEN BAG 2D 427, 427 n.1 (2010).
[47] Dean was "a position new to the school [and] the duties of the dean, on paper, were not very awesome." FRIEDMAN, *supra* note 27, at 530; *see also* STEVENS, *supra* note 33, at 44 n.12 (noting that "Dean was a new title; the position Langdell accepted was basically secretary of the faculty. Langdell made the deanship the significant post it is today.").
[48] Arthur L. Goodhart, Book Review, 80 HARV. L. REV. 1818, 1826 (1967) (noting that "[w]hen Langdell became dean in 1870 there were only two other professors, [Emory] Washburn and Nathaniel Holmes").

for its part, almost closed its law school on several occasions, including in 1869, only one year before Langdell's appointment as dean.[49]

Heading into the eighth decade of the 19th century, "office apprenticeships [were] still the common route to the profession,"[50] and many of the university-affiliated law schools were still struggling. The picture brightened for such law schools later in the 19th century, however, and it can accurately be said that the modern law school was born during Langdell's quarter century as dean. For generations of law students, for instance, the case method and the Socratic method of teaching have seemed essential – or at least ever-present – characteristics of law teaching,[51] but they became a standard part of the fabric of law school life only during or slightly after Langdell's tenure.[52] A broader achievement was securing the place of law schools within the

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[49] *History of YLS*, YALE LAW SCHOOL WEBSITE (stating that Yale almost closed its law school in 1845 and 1869), http://www.law.yale.edu/about/historyofyls.htm. Harvard Law School also had its precarious moments and, in fact, "nearly collaps[ed]" in 1829. Charles R. McManis, *The History of First Century American Legal Education: A Revisionist Perspective*, 59 WASH. U.L.Q. 597, 620 (1981).

[50] HARNO, *supra* note 27, at 52.

[51] Neither method, nor the casebook itself, originated with Langdell, but he undoubtedly was the most influential person behind their spread and adoption within law schools. *See* STEVENS, *supra* note 33, at 52, 66 n.18. *See also* FRIEDMAN, *supra* note 27, at 531 n. 19 & 548 n. 53 (noting that "John Norton Pomeroy used a case method at New York University Law School in the 1860's" and that "[c]ollections of cases, of course, were not new"); HARNO, *supra* note 27, at 54 (tracing the first casebook to 1810, and also noting Pomeroy's use of the case method at New York University). Even after Langdell's appointment, instruction by lecture continued as the dominant method at Harvard Law School for a few years, with "[s]ome of the professors and lecturers literally lectur[ing], that is, read[ing] from textbooks or prepared notes." Franklin G. Fessenden, *The Rebirth of the Harvard Law School*, 33 HARV. L. REV. 493, 498 (1920).

[52] *See* STEVENS, *supra* note 33, at 117, 123 (stating that the case method had become "the standard teaching system for leading AALS law schools" by 1910 and that, by the 1920s, "anybody who was anybody in the law school 'industry' used [it]"). *See also* Fessenden, *supra* note 51, at 494 (noting in 1920 that Langdell's "method has been pursued for many years by most American law schools"). Other teaching methods predated the Harvard case method and, at least for a while, competed against it. *See* Stevens, *supra* note 33, at 29-30 n. 22, 52, 66 n. 18, 86 n. 21 (describing an earlier method (the "Columbia System"), utilized most prominently from the 1850s to the 1890s by Columbia law professor Theodore W. Dwight, consisting of "lectures and [daily] quizzes about [legal] rules," as well as some use of the Socratic method); *id*. at 61-62, 70 n.83 (noting the "'Yale Method' of instruction, which consisted of lectures and daily recitations," and which prevailed at Yale until the early 1900s, when it finally succumbed to the case method); *id*. at 71 n. 86, 192 (describing an eclectic approach taken at the University of Virginia until the 1930s, when the case method emerged "totally victorious"); *id* at 61, 70 n. 80 (noting that, by 1903, Hastings had replaced the Pomeroy case method with the Harvard case

larger academic community of universities and colleges. Law schools did so by branding and emphasizing the law as a type of science, not a mere practical and worldly occupation.[53] "[C]onsidered as a science," stated Langdell, law "consists of certain principles or doctrines. To have a mastery of these as to be able to apply them with constant facility and certainty to the ever-tangled skein of human affairs, is what constitutes a true lawyer."[54] Langdell's "scientific approach . . . [would] infer the corpus of general legal rules from the reasoning used by courts," and then "use such reasoning . . . to predict outcomes in future cases."[55]

By use of the word "science," we make haste to note, Langdell and his fellow lawyer-scientists – at least publicly[56] – did not contemplate law as a squishy, inexact kind of science, but regarded it instead as one would regard chemistry or physics.[57] In defending the conception of the law as a precise science, William C. Robinson, a

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method). *See also* Anthony Chase, *The Birth of the Modern Law School*, 23 AM. J. LEGAL HISTORY 329, 336-37 (Oct. 1979) (stating that, immediately prior to the appointment of Langdell as dean, "the standard mode of teaching in the Harvard Law School" was "the lecture method of legal instruction, which frequently amounted to little more than a professor standing before a class reading one or two chapters from a legal treatise").

[53] There is no question that Langdell desired to increase the academic status of law schools and that he regarded the widespread adoption of the belief that law was a science as essential to accomplishing this aim. Stevens, *supra* note 33, at 53. Indeed, it has even been suggested that Langdell may have exaggerated his identification of law with science precisely in order to better secure law's place within the broader academic community. *See* Goodhart, *supra* note 48, at 1825 (suggesting that Langdell's articulated view of law as a science was determined in part by a felt need to fit in with then-current academic beliefs held by "young Harvard intellectuals").

[54] CHRISTOPHER COLUMBUS LANGDELL, A SELECTION OF CASES ON THE LAW OF CONTRACTS, 2d ed., vii (Boston 1879) (1871). Langdell, accordingly, considered the law library the equivalent of the scientist's laboratory. Christopher Columbus Langdell, *Harvard Celebration Speeches*, 3 LAW Q. REV. 123, 124 (1887).

[55] Schuck, *supra* note 28, at 239-40.

[56] *See* ARTHUR E. SUTHERLAND, THE LAW AT HARVARD; A HISTORY OF IDEAS AND MEN, 1817-1967, at 178 (1967) (suggesting that Langdell's assertion of law as a science like chemistry or physics could have contained a strategic element that did not correspond exactly to his personal beliefs).

[57] *See id.* at 175 (1967) ("Langdell evidently thought of the 'science of law' as analogous to the sciences of chemistry or botany"); STEVENS, *supra* note 33, at 164 n. 7 (stating that Langdell "talked of chemistry, physics, zoology, and botany as disciplines allied to the law") (quoting GRANT GILMORE, THE AGES OF AMERICAN LAW 87-88 (1977)). Indeed, the social sciences were rejected as presenting a threat of contamination to the "pure" science of the law. STEVENS, *supra* note 33, at 134.

slightly younger contemporary of Langdell and a Yale Law School professor and dean of the School of the Social Sciences at Catholic University, explained that:

> [L]aw as a science is a body of fundamental principles and of deductions drawn therefrom in reference to the right ordering of social conduct. The principles are universal, admitting neither exception nor qualification. . . . The intellect in deriving legitimate deductions from these principles follows the invariable processes of logic, over which the will has no control, and which are always and everywhere the same, whatever may be the subject of investigation.[58]

This assertion of law as a science was not widely contested, "but it was instead one of the most publicized examples of adherence to a common methodology of the era."[59] The belief -- already in the air before Langdell[60] -- intensified during his deanship[61] and retained high levels of support well beyond his 1895 retirement as dean.[62] Even schools that were founded in expressed opposition to Harvard's perceived

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[58] William C. Robinson, A Study of Legal Education: Its Purposes and Methods 15 (Reprinted from the Catholic University Bulletin, April 1895), http://books.google.com/books?id=D4o8AAAAIAAJ&lpg=PA1&ots=AI1vxqnVeB&dq=William%20Robinson%2C%20A%20Study%20of%20Legal%20Education%2C%20Catholic%20University%20Bulletin&pg=PA5#v=onepage&q=William%20Robinson%2C%20A%20Study%20of%20Legal%20Education%2C%20Catholic%20University%20Bulletin&f=false.

[59] STEVENS, *supra* note 33, at 122. Tellingly, even contemporaries who criticized Langdell's decision to teach the science of the law through the case method proved that they, too, had imbued the spirit of the age by basing their criticism on the ground the case method was "unscientific." *Id*. at 58.

[60] Indeed, the most important eighteenth century law school, Litchfield Law School in Connecticut, "claimed that it taught the law "as a science, and not merely nor principally as a mechanical business, nor as a collection of loose independent fragments." *Id*. at 3-4. *See also id*. at 22, 29 n.13 (citing the Circular and Catalogues of the Law School of the University of Albany for the Year 1856-57, at 9, and quoting its claim to teach law "both as a SCIENCE and an ART").

[61] *See* Report of the Committee on Legal Education and Admissions to the Bar, 2 ABA Reports 209 (1879). The 1879 ABA Report called for legal training to take place in law schools, where it could be done "scientifically." *Id*. Discussing the 1879 Report, one scholar noted that "[t]he model was to be the scientific training of France and Germany." STEVENS, *supra* note 33, at 93. One reason that this model found widespread support was Langdell's success in persuading Harvard students to advocate -- one might even say evangelize -- for it. Thus, for example, William A. Keener, a Harvard law professor in the 1880's and an 1877 graduate of the school, who later was awarded a chair at Columbia Law School, wrote that "the student must look upon the law as a science consisting of a body of principles to be found in adjudged cases, the cases being to him what the specimen is to the geologist." *See* 2 WARREN, *supra* note 30, at 421 (Lewis Pub. Co. 1908) (2008) (quoting WILLIAM A. KEENER, CASES ON THE LAW OF QUASI-CONTRACTS iv (1888)).

[62] Thus, in 1927, Northeastern College's School of Law asserted that "[t]he law is a science, the only approved and effective method of teaching which, as is true of all sciences, is the inductive method"). Northeastern College, School of Law, Springfield, Catalog, 1927-28, at 29 (cited in STEVENS, *supra* note

bent away from the practicalities of legal practice could not resist touting their own adherence to science. Thus, Boston University's Law School made sure to proclaim its own dedication to teaching "the science of law," before slyly adding that that science would be taught "with a view to its application."[63]

Much twentieth century legal scholarship, of course, was devoted to debunking the notion of law as a science; indeed, concerning the twentieth century Legal Realist movement, one scholar concluded that:

> The major contribution of the Realist movement was to kill the Langdellian notion of law as an exact science, based on the objectivity of black-letter rules. When it became acceptable to write about the law as it actually operated, legal rules could no longer be assumed to be value-free. This change inevitably caused the predictive value of doctrine to be seriously questioned.[64]

Notwithstanding the destruction of the foundation of Langdellian thought about the law, as with alchemy's contributions to chemistry, the law's pretensions to science ultimately proved extremely valuable. How can the citadel of the modern law school still

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33, at 200 n. 12. *See also* STEVENS, *supra* note 33, at 40 (noting that the planning for the 1902 founding of the University of Chicago's law school included "the usual homage 'to cultivate and encourage the scientific study of systematic and comparative jurisprudence'"); James Brown Scott, *The Study of the Law*, 2 AM. LAW SCHOOL REV. 1(1906) (literally referring to law as a "science" on every page but one of a ten-page address).

[63] *See* STEVENS, *supra* note 33, at 74.

[64] *Id*. at 6. On the other hand, Yale Law Professor Grant Gilmore contended that the attack of the Legal Realists upon Langdellian jurisprudence was more for the purpose of reforming it than killing it. *See* GRANT GILMORE, THE AGES OF AMERICAN LAW 87-88 (1977). As Professor Grant engagingly wrote:

> [T]he revolution may have been merely a palace revolution, not much more than a changing of the guard. My own thought has come to be that the adepts of the new jurisprudence . . . no more proposed to abandon the basic tenets of Langdellian jurisprudence than the Protestant reformers of the fifteenth and sixteenth centuries proposed to abandon the basic tenets of Christian theology. These were the ideas that "law is a science" and that there is such a thing as "the one true rule of law."
>
> At the hands of the Realists, the slogan "law is a science" became "law is a social science." Where Langdell had talked of chemistry, physics, zoology, and botany as disciplines allied to the law, the Realists talked of economics and sociology not merely as allied disciplines but as disciplines which were in some sense part and parcel of the law.

Id.

stand as a success when its foundation was long ago destroyed? One reason is that Langdell's case method enabled "large numbers of students [to be taught] at relatively little expense for instruction and materials."[65] This economic truth did not disappear with the erosion of belief in law as a science. A second reason is that, by helping law (and full-time professors of law) secure a place in the academy, the "scientific" aspirations of Langdell and his cohorts provided greatly enhanced opportunity and motivation for the systematic study and organization of many fields of law. This considerable achievement enabled directly the development of a more comprehensive and cohesive understanding of legal doctrine and theory, even if the end result lacked the empiricism and hypothesis testing that is commonly considered a prerequisite of science. And, to the extent it was transmitted to students, the "academic" good of deeper doctrinal knowledge and theory gradually spread throughout the legal community, in turn becoming a societal good in the process. Moreover, the method chosen to convey this knowledge -- the case method -- whatever its shortcomings as a method for efficiently conveying doctrinal knowledge,[66] has been almost universally

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[65] Todd. D. Rakoff & Martha Minow, *A Case for Another Case Method*, 40 VAND. L. REV. 597, 598 (2007).

[66] Langdell's insistence that the case method provides "the shortest and the best, if not the only way of mastering [legal] doctrine," CHRISTOPHER COLUMBUS LANGDELL, A SELECTION OF CASES ON THE LAW OF CONTRACTS, Preface vi (1871), was challenged during his lifetime, *see*, *e.g.*, C. Tiedeman, *Methods of Legal Instruction III*, 1 YALE L.J. 150, 154-55 (1892); *see also* Chase, *supra* note 52, at 342 ("Early critics of the case method argued that to learn substantive law through the study of individual cases was a hopelessly time consuming exercise."), and finds little support today, *see* Edward Rubin, *What's Wrong with Langdell's Method, and What to Do About It*, 40 VAND. L. REV. 609, 610 (2007) (stating that "[f]ew contemporary legal educators even attempt to offer a rationale" for utilizing, "essentially unchanged," "the basic educational approach . . . introduced at Harvard" by Langdell); John Elson, *The Regulation of Legal Education: The Potential for Implementing the MacCrate Report's Recommendation for Curricular Reform*, 1 CLINICAL L. REV. 363, 384 (1994) (noting that the case method conveys doctrinal knowledge inefficiently and often haphazardly). Indeed, criticism of the inefficiency and ineffectiveness of the case method became commonplace among legal scholars a century or more ago. *See*, *e.g.*, Karl N. Llewellyn, *The Current Crisis in Legal Education*, 1 J. LEGAL ED. 211, 215 (1947) ("it is obvious that man could hardly devise a more wasteful method of imparting *information about subject matter* than the case-class. Certainly man never has.") (emphasis in original); THURMAN ARNOLD, FAIR FIGHTS AND FOUL: A DISSENTING LAWYER'S LIFE 263 (1937) (saying of the case method that "[n]o more time wasting system of studying the law has ever been devised"); STEVENS, *supra* note 33, at 61 (quoting the dean of Wisconsin Law School

acknowledged as a powerful tool for teaching analytical skills.[67] Development of legal knowledge and lawyers thinking like lawyers:[68] these are good things.

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as stating, during the 1890s, that the case method was "narrow, slow, and unprofessional"); Theodore W. Dwight, *Columbia College Law School of New York*, 1 GREEN BAG 141, 146 (1889) (a claim by Langdell's contemporary and rival, Columbia law professor Theodore Dwight, that Dwight's own system was better than the case method for the average student, and worse for none). *See also* Albert Coates, *The Story of the Law School at the University of North Carolina*, 47 N. C. L. REV. 1, 57 (1968) (quoting the dean of the law school at Virginia as stating, in 1921, that "the most serious objection [to the case method] is the slowness with which the course goes forward, and the gaps that the method must leave in the continuity and completeness of the topics pursued"); JOHN RITCHIE, THE FIRST HUNDRED YEARS: A SHORT HISTORY OF THE SCHOOL OF LAW OF THE UNIVERSITY OF VIRGINIA 1826-1926, at 54 (1978) (noting Dean Lile's opposition to the case method in the 1920s). Other criticisms were made in two early Carnegie Foundation reports. *See* ALFRED Z. REED, TRAINING FOR THE PUBLIC PROFESSION OF THE LAW: HISTORICAL DEVELOPMENT AND PRINCIPAL CONTEMPORARY PROBLEMS OF LEGAL EDUCATION IN THE UNITED STATES WITH SOME ACCOUNT OF CONDITIONS IN ENGLAND AND CANADA 382 (1921) (stating that "in the hands of a mediocre [teacher the case method] is the very worst of all possible modes of instruction"); JOSEF REDLICH, THE COMMON LAW AND THE CASE METHOD IN AMERICAN UNIVERSITY LAW SCHOOLS 41, 49-50 (Carnegie Foundation Bulletin No. 8,1914) (asserting that "students never obtain a general picture of the law as a whole" when the case method is used, and that the case method had negative effects on scholarship). *See generally* Paul F. Teich, *Research on American Law Teaching: Is There a Case Against the Case System?*, 36 J. LEGAL EDUC. 167, 169-171 (1986) (discussing criticisms of the case method).

[67] *See* STEVENS, *supra* note 33, at 269 ("The ability of the case method to develop analytical skills and legal craftsmanship [has been] widely accepted" and "most legal educators and practitioners [have] regarded it as an unparalleled method for training students to be lawyers"). The case method's special competence for training students "in legal thinking and in legal reasoning" has long been claimed. *See*, *e.g.*, Scott, *supra* note 62, at 4-8. A more particular statement of the strengths of the case method has noted the following:

> [The case method gives the student] training in the analysis of states of fact [and] in distinguishing the legally material from the immaterial. It enables him to recognize and state accurately the legal problem involved. . . . It gives him a perception of the kind of argument which appeals to the judicial mind, of the extent to which logical reasoning is checked by practical considerations and judicial experience. . . . It requires him to do some independent thinking and to form his own judgments upon legal questions.

Edmund M. Morgan, *The Case Method*, 4 J. LEGAL ED. 379, 384 (1952). *See also* Chase, *supra* note 52, at 344 ("The case method of legal instruction can be understood as [the process of the] development in the classroom of the student's mastery of legal language and of the mental categories and techniques by which it is structured."). *But see* Teich, *supra* note 66, at 169-171 (noting a "vocal minority of . . . law teachers . . . [have] challeng[ed] the [case] method's usefulness in teaching analytic skills (most often claimed by proponents to be the method's greatest strength").

[68] "To borrow a phrase from Charles Eliot, it was formation as well as information which the case method was designed to procure." Chase, *supra* note 52, at 342. *But see* Harry T. Edwards, *The Growing Disjunction Between Legal Education and the Legal Profession*, 91 MICH. L. REV. 34, 58 (1992) (stating that traditionally in law school "students did not really learn how to 'think like lawyers' – because the complete lawyer 'thinks' about doctrine, *and* about trial strategy, *and* about negotiation, *and* counseling" (emphasis in original)).

In advancing these goods, the new law schools did well for themselves as well, and it is instructive to explore why. Whether fortuitously or by forethought, the Langdellian model law school took dead aim at the two greatest weaknesses of the then-dominant apprenticeship training model:[69] (1) in general, the practitioner-teachers didn't teach; and (2) in particular, no effort was made to impart doctrinal knowledge or teach analytical skills in a sustained and organized way. Let's address these two problems in order.

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[69] Although only nine of 39 U.S. jurisdictions required legal training of any kind by 1860, *see* Reed, *supra* note 66, at 86, it still is fair to speak of apprenticeship as the then-dominant model of legal education in the United States. For a start, even if its heyday had passed, apprenticeship did remain the most common form of legal education. FRIEDMAN, *supra* note 27, at 278 ("Even at the low point of professional government," i.e., during the three decades following the election of Andrew Jackson as President, "no one practiced law without some pretense at qualification [and] [m]ost lawyers gained their pretensions by spending some time, in training, in the office of a member of the bar"); Michael Les Benedict, *Law and the Constitution in the Gilded Age*, *in* THE GILDED AGE: PERSPECTIVES ON THE ORIGINS OF MODERN AMERICA 333, 336 (Charles W. Calhoun ed., 2d ed. 2007) ("Before the Civil War most lawyers had entered the profession by apprenticing with practitioners."). Second, the apprentice requirement remained most often in the more populous east coast states, while the jurisdictions that eliminated or never enacted the requirement were concentrated in the more sparsely populated frontier states and territories west of the Alleghanies (by 1860, high population Ohio was the only "western" jurisdiction to impose an apprenticeship requirement). Reed, *supra* note 66, at 87; *see* Stein, *supra* note 30, at 444 (stating that "[t]he farther west one went the lower the standards in legal education and admission to the bar became"). In the pre-Civil War west, however, a scarcity of law books made an apprenticeship a practical advantage if for no other reason than the access it gave to a law library. A. Christopher Bryant, *Reading the Law in the Office of Calvin Fletcher: The Apprenticeship System and the Practice of Law in Frontier Indiana*, 1 NEV. L.J. 19, 22 (2001) (noting that, even where it was not required, "[t]he apprentice system flourished because," among other things, a "student desiring to enter the profession needed access to what then passed for a law library in the West"); *see also* Paul D. Carrington, *Legal Education for the People: Populism and Civic Virtue*, 43 U. KAN. L. REV. 1, 7 (noting that "[m]ore than a few [frontier lawyers] had acquired some apprentice training before coming west"). Finally, even in states that did not require legal education as a matter of law, ways were found or employed to encourage or favor apprenticeships as a matter of fact. Thus, courts remained empowered in most jurisdictions to exclude bar applicants whose knowledge of law appeared insufficient under examination by the court. Reed, *supra* note 66, at 87; *see* McManis, *supra* note 49, at 628 (noting that in the years following Andrew Jackson's presidency, "[o]ften the only formal professional standards that regulated the legal profession were the bar examinations administered by the judges"). Massachusetts recognized this authority of the courts in general, but restricted the courts' authority in a way that favored apprenticeship, i.e., "courts were obliged to admit" any applicant who was "of good moral character, and had studied law for three years in an attorney's office." Reed, *supra* note 66, at 87. In addition, courts encouraged apprenticeships by narrowly construing legislation abolishing legal education requirements, and by tolerating or even encouraging "professional ostracism" of lawyers who lacked legal training. *Id*. at 88-90.

First, precise figures are impossible to come by, but the general consensus of the time and the judgment of history is the same: "Close supervision of apprentices and clerks was rare . . .."[70] "[T]here is nothing," stated an 1898 ABA Committee Report, "that a busy lawyer would sooner run from than a young gentlemen who would exact an hour of his time every day instructing him in the elementary principles of the law."[71] Accordingly, "clerks in the law offices were left almost wholly to themselves."[72] (Indeed, Columbia law professor Theodore Dwight asserted in 1889 that clerks "[f]requently . . . were not even acquainted with the lawyers with whom, by a convenient fiction, they were supposed to be studying").[73] The lack of synergy between the demands of law practice and the demands of law teaching seems an inherent and unfixable problem with the apprentice system. Busy lawyers are, well, busy.[74] On any given day, explaining *mens rea* or the Rule Against Perpetuities is likely to be extremely low on their list of priorities.[75] History surely evidences the "fact [that] it was seldom that the reality [of a legal apprenticeship] measured up to the theory";[76] consider, for example, the following assessments:

Regarding apprenticeship in 18th century colonial America:

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[70] STEVENS, *supra* note 33, at 30 n.28. *See also id*. at 22 (noting "increasing dissatisfaction [mid-nineteenth century] arising from training professionals through apprenticeship in offices," where, "it was alleged[,] 'the student is admitted to the bar with such knowledge as he can gather, unaided, from Blackstone and Chitty'"). *See also* W. WESLEY PUE, A HISTORY OF BRITISH COLUMBIA LEGAL EDUCATION 16 (University of British Columbia Legal History Papers, WP 2000-1) (2000) (quoting a 19th century English barrister's statement that "'generally speaking, [the apprentice was] left entirely to himself'").
[71] Richard C. Jones, Report of the Committee on Legal Education and Admission to the Bar, 21 Alabama State Bar Association Proceedings 97, 100 (1898).
[72] Dwight, *supra* note 66, at 141.
[73] *Id*. *See* 1 WARREN, *supra* note 30, at 133 (noting that James Wilson "devoted little of his time to his students in his office" and in fact "rarely entered" that office).
[74] 1 WARREN, *supra* note 30, at 133(stating that during the apprentice era of legal training, "[a]s a rule, the lawyer was too busy a man to pay much attention to his students").
[75] LAWRENCE M. FRIEDMAN, A HISTORY OF AMERICAN LAW 238 (3d ed. 2005) (asserting that an apprentice would have to be counted as "very lucky [if a] lawyer actually tried to teach him something").
[76] W. Hamilton Bryson, *The History of Legal Education in Virginia*, 14 U. RICH. L. REV. 155, 158 (1979).

> Many an aspiring lawyer sought out a successful member of the bar in order to take advantage of his experience, only to find himself left alone with his books while his erstwhile teacher tended to business. . . . [W]hen forced to choose, most lawyers put their own interests before those of their students. . . . These feelings were widespread among students in . . . colonial America.[77]

Regarding apprenticeship in Revolutionary War era America:

> Often the most able jurists did not have the time to devote to their apprentices: consider for example the complaint of one of James Wilson's students that "[a]s an instructor he was almost useless to those who were under his direction." [Additionally m]any lawyers had neither the knowledge nor the ability required to teach others. At the worst, they simply pocketed students' fees and exploited their apprentices as cheap labor for copying contracts, filing writs and preparing pleas.[78]

Regarding Daniel Webster's early 19th century apprenticeship, under a "gentleman of education and intelligence"[79] who, while actually trying to direct Webster toward appropriate reading material,[80] beginning with "Coke's Littleton,"[81] apparently made little or no effort to assure that his apprentice got anything out of the assignment:

> A boy of twenty, [said Webster], with no previous knowledge of such subjects, cannot understand Coke. It is folly to set him upon such an author. There are propositions in Coke so abstract . . . that it requires . . . a mind both strong and

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[77] Charles R. McKirdy, *The Lawyer as Apprentice: Legal Education in Eighteenth Century Massachusetts*, 28 J.LEGAL. EDUC. 124 (1976-1977). *See* 1 THE PAPERS OF THOMAS JEFFERSON 23 (J. Boyd ed., 1950) (1769 letter by Thomas Jefferson stating that Jefferson "was always of the opinion that the placing a youth to study with an attorney was rather a prejudice than a help. We are all too apt [to] shift[] on them our business . . . .").

[78] 2 THE CAMBRIDGE HISTORY OF LAW IN AMERICA: THE LONG NINETEENTH CENTURY (1789-1920) 39 (Michael Grossberg & Christopher L. Tomlins , eds., 2008) (quoting 1 WARREN, *supra* note 30, at 133.

[79] Edward Everett, *Biographical Memoir of the Public Life of Daniel Webster*, *in* 1 DANIEL WEBSTER, THE WORKS OF DANIEL WEBSTER xxvii (1851).

[80] In a law apprenticeship, "[it] was the responsibility of the practicing lawyer to direct the reading of his pupil or clerk; the duty, however, "was more often than not shirked." Bryson, *supra* note 76, at 160.

[81] 'Coke's Littleton" refers to *Coke upon Littleton*, a book that had its origins in a 15th century treatise by Sir Thomas Littleton on real property law. *Id*. at 161. "[I]n the early seventeenth century Sir Edward Coke brought it up to date and enlarged it." *Id*. Other authors made subsequent additions, so that "by the end of the eighteenth century the original work had acquired several layers of footnotes." *Id*. at 161-62.

> mature, to understand him. . . . Why disgust and discourage a young man by telling him he must break into his profession through such a wall as this?[82]
>
> Regarding apprenticeship in the early 20th century (in Canada):
>
> The clerks in the offices spen[t] most of their time doing clerical work which [the lawyers would] not do for themselves, but which [the clerks would] require their own clerks to do for them when they themselves begin to practise. The result was a profession of apprentices without principals. These clerks receive[d] absolutely no instruction and scarcely any assistance in their work.[83]

And regarding more recent assessments of training in modern law firms, where the training requirements are less demanding in both relative and absolute terms (because the "apprentices" will be enrolled in or recently graduated from law school and because the resources of modern multi-partner law firms greatly surpass what was available in prior centuries), we still find that practitioners are unable to meet even this lesser standard:

> [S]ystematic pedagogical techniques have never been among the skills lawyers learned, either through formal education or hard-won experience. Asking a veteran lawyer to be an effective teacher of new lawyers is rarely a reasonable request for those who practised in the 20th century, let alone the 18th. Asking law firms, never the most sophisticated of enterprises, to add systematic law lawyer instruction to their limited repertoire of business skills has been equally

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[82] Everett, *supra* note 79, at xxviii (quotation marks omitted). Webster's lament is a broader indictment of the apprentice system than it might first appear. Although *Coke upon Littleton* was, by general agreement, "thoroughly turgid," it "was frequently the first law book that a law [apprentice] was assigned." Bryson, *supra* note 76, at 162. The book so bored a young Thomas Jefferson that he resorted to wishing that Coke had suffered eternal damnation for his crime of putting quill to parchment. Letter from Thomas Jefferson to John Page (Dec. 25, 1762), *reprinted in* 1 PAPERS OF THOMAS JEFFERSON 5 (J. Boyd. ed., 1950), *available at* http://www.jeffersonhour.com/letters.html ("I do wish the Devil had old Coke, for I am sure I was never so tired of an old dull scoundrel in my life.").

[83] PUE, *supra* note 70, at 16 (quoting an address given in 1913 by a Canadian lawyer and educator). This 20th century account parallels almost exactly one scholar's assessment of apprenticeships in Virginia in the 1700s: "Most of the work was that of a drudge -- copying documents. . . . [Apprentices] normally [received] only the most marginal of assistance from their masters." STEVENS, *supra* note 33, at 10-11 n.5. *See also* John O. Sonsteng et al., *A Legal Education Renaissance: A Practical Approach for the Twenty-First Century*, 34 Wm. Michell 303, 322 (2007) ("[A]pprentice training was unstructured and uneven. Time was often spent on menial tasks rather than study, and even the best lawyers could not always dedicate adequate time to their apprentices.").

> unlikely to pay dividends. It is simply not a capacity that most lawyers and law firms have ever developed . . ..[84]

It is telling that while many criticisms similar to the above could be compiled, [85] "[h]istorical reports of principals who were both willing and effective instructors of legal know-how for their charges are rare; the great majority of such experiences reflected the reality that lawyers put their own immediate interests ahead of those of their apprentices."[86]

Three centuries of failure should be enough to conclude that reliance on busy practitioners to provide an adequate legal education is an inherently and deeply flawed strategy -- although exceptions will exist, on average practitioners simply have better things to do.[87] That leaves, one supposes, practitioners who aren't busy, but the weaknesses of this approach seem obvious and substantial. Practitioners who are not busy generally will fall into one or more of four categories: the less capable, the less

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[84]Furlong, *supra* note 30, at 17. Reliance upon the teaching capacity of law firms seems a particularly dubious proposition at this time of great technological change when, for example, even experienced attorneys may be at a loss to explain or even understand how to handle the metadata embedded in electronic documents or how to utilize the latest techniques for dealing with large data sets, such as predictive coding, *see infra* notes 208-218 (discussing various methods, including predictive coding, for handling electronic documents).

[85] W. WESLEY PUE, *supra* note 70, at 16 (noting that "criticism of the articling [or apprentice] system has been more or less a constant feature of legal life").

[86] Furlong, *supra* note 30, at 17.

[87] Indeed, the current trend is toward less teaching by legal employers. *See* Marc Galanter & William Henderson, *The Elastic Tournament: A Second Transformation of the Big Law Firm*, 60 STAN. L. REV. 1867, 1918 (2008) ("informal training and mentoring in most large law firms are on the wane because partners are reluctant to invest the time beyond what is necessary to optimize their own practices"); Chris Mondics, *For new legal chief, mentoring a priority*, PHIL. INQUIRER, Dec. 4, 2012, at A22 (stating that "many law firms are devoting fewer resources to training young lawyers"). *See also* Meredith Hobbs, *Experts: Lower Associate Pay is Here to Stay*, FULTON COUNTY DAILY REP., Nov. 5, 2009, http://www.law.com/jsp/tx/PubArticleTX.jsp?id=1202435216222 ("It costs partners money to train associates without billing for their time. The economics . . . don't look good to partners.") (internal quotation marks omitted); Linda C. Fentiman, *A Distance Education Primer: Lessons from My Life as a dot.edu Entrepreneur*, 6 N.C. J. LAW & TECH. 41, 53 (2004) (noting that "lawyers' very talents, dynamism, and ambition" makes them "too busy, billing hours and making rain, to commit to teaching").

diligent, the less experienced,[88] and victims of bad economic conditions. Only the last category offers any hope of being an effective teacher, but in that case, the major lesson learned is likely to be how to hustle and scrounge for business. That is certainly a valuable skill and one that can be honorably performed -- at the most elite levels of the bar the skill is called "rainmaking" and is richly rewarded -- but to emphasize it at the start of one's legal education is truly to put the cart before the horse. In all events, even if the mentors in an apprentice system could be limited to the diligent and capable underemployed, the system would hardly be sustainable. Heaven forbid, for example, that the economy should boom -- who would train the next generation of lawyers then?

The Langdellian model law school addressed the problem of unmotivated teachers, slowly, by utilizing full-time professors. It was encouraged along the way by consensual prodding from both the ABA and the Association of American Law Schools ("AALS"). (To be sure, the AALS, historically a consortium of schools embodying or seeking elite status,[89] has had economic as well as educational motives for raising standards; schools that cannot meet the standards required for AALS membership carry

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[88] An apprenticeship with a particularly inexperienced principal is discussed in Wesley Pue's thorough history of legal education in British Columbia. In that history, Professor Pue relates the story of one Alfred Watt who, in the midst of the Great Depression, apprenticed with an attorney who had been called to the bar the previous *month*. Presumably lacking local legal business, the attorney entered with Watt and a non-lawyer into a "venture that combined an itinerant general store with a roving law office." W. WESLEY PUE, *supra* note 70, at 18. Possibly the world's worst ever legal apprenticeship then commenced:

> A one-and-a-half ton International truck was acquired and loaded with the required commodities for a general store, ten drums of gasoline, and a few law books. So equipped, the trio set off along a crude Fraser Canyon trail for the Cariboo, having no exact destination. Over the next few months Watt's articling [or apprenticing] consisted of large doses of truck maintenance, grocery purveying, and lumber hauling.

Id. (internal quotation marks omitted). Perhaps unnecessarily, Professor Pue continues by noting that "[t]here is remarkable little record of either mentoring by his principal or independent study of law during this phase of Watt's articles." *Id*.

[89] *See* 1905 AALS PROCEEDINGS 15 ("As we are sitting now with closed doors I suppose we may speak of ourselves as the best law schools. ") (remarks of Joseph Beale).

and have carried "'a heavy handicap'" in the marketplace).[90] The ABA Committee on Legal Education and Admissions started the inexorable push in 1879, when it called for "'public maintenance' of law schools with at least four well-paid and efficient teachers."[91] In 1892, the ABA passed a resolution which "recommended that law schools be maintained by the states and have at least one full-time faculty member."[92] In 1916, the AALS adopted a "requirement . . . for three fulltime teachers."[93] The AALS raised this requirement to four full-time instructors in the early 1930s[94] and, in 1950, to four full-time instructors plus a dean[95] (the requirement for a full-time dean having first been established in 1948).[96] AALS resolutions also were passed requiring schools to meet a set student to full-time professor ratio. The required ratio was 100 to one in 1924;[97] in 1952, the ratio was lowered to 75 to one.[98] Today, the ABA requirements on the same topic involve a complicated formula counting some professors, such as tenured or tenure-track faculty, more than others, with a ratio of 30 or over to one "presumptively" out of compliance with the standards.[99] The employment contracts of full-time professors provide additional assurance that the "too busy to teach" problem characteristic of the apprentice system will be avoided; such contracts typically require professors to devote most of their working time to activities that will benefit their

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[90] STEVENS, *supra* note 33, at 180. The quoted words are by a president of the AALS, who in the same speech also referred to the organization as an "accrediting agency." *Id*. *See also* Cardozo, *The Association Process: 1963-1973*, in 1975 AALS PROCEEDINGS Part One, Section 2, at 8 (stating that the AALS's policing of its membership standards "has always been, despite objections to the word," an "'accreditation function'").
[91] STEVENS, *supra* note 33, at 93.
[92] *Id*. at 95.
[93] First (I), *supra* note 10, at 344 n. 182 (citing 1916 AALS Proceedings 24, 79-80).
[94] STEVENS, *supra* note 33, at 176.
[95] First (I), *supra* note 10, at 392.
[96] STEVENS, *supra* note 33, at 207.
[97] *Id*. at 173.
[98] First (I), *supra* note 10, at 392.
[99] ABA, 2011-2012, Standards and Rules of Procedure for Approval of Law Schools, Interpretation 402-2(2) (2011-12).

employer. This requirement limits even part-time law practice conducted on a regular basis.

The change to staffing with full-time teachers who, freed from other obligations, presumably would at least show up somewhat prepared for class, established one appealing improvement over legal education provided by a practitioner in an apprentice relationship. The second point of difference that positioned law schools well in the marketplace involved the content of the teaching itself. A law school offered "a systematic, academic experience" on a broad range of subjects.[100] In contrast, in an apprentice relationship, even when the principal was diligent, "the areas of law studied were often limited in scope and applicable only to local jurisdictions."[101]

Moreover, to the extent that the single principal of an apprentice was tempted to opine widely on many subject areas of the law, as law faculties collectively do, the risk of unreliability was heightened. In addition, of the many strengths and weaknesses that go into lawyering, analytical skills have always been the strength of the professoriate. Indeed, from Langdell's time onward, that quality has been the sine qua non of the selection process. Langdell, after all, viewed law as a science, and scientists are typically regarded as possessing extremely strong powers of analysis. Having been selected for their analytical skills, and given the time to apply and refine those skills in relative leisure to specific areas of the law, it would be surprising to the point of

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[100] STEVENS, *supra* note 33, at 24.

[101] *Id*. at 30 n. 28. *See* W.Wesly Pue, *Guild Training versus Professional Education: The Department of Law at Queen's College, Birmingham in the 1850's*, 33 AM. J. LEGAL EDUC. 241, 248 (1989) (quoting an 1847 article that described the legal education received in an apprenticeship as "'a thing of shreds and patches'"); Dominick R. Vetri, *Educating the Lawyer: Clinical Experience as an Integral Part of Legal Education*, 50 OR. L. REV. 57, 57 (1970) ("the fact that most law practices embraced a narrow range of interests . . . contributed to the poor quality of training that most young lawyers received" during their apprenticeships). Bryson, *supra* note 76, at 158 (noting as one of the weaknesses of an apprenticeship that "the student would be exposed only to a small part of the law").

astonishment if the average law professor did not far exceed the typical practitioner in the ability to recognize, analyze and accurately explain the logic and conventions of legal reasoning.

To be sure, there surely are and always have been many more legal practitioners with high-level analytical skills than there are law professors. However, having been selected primarily on the basis of such an ability, the percentage of professors who possess that skill is surely much higher. And while law professors are paid to study fields of law in a systematic way, so that they might prepare to teach those fields systematically and efficiently, the demands of law practice -- constituting a blur of cases and files and clients and claims -- rarely afford practitioners the opportunity for such study or preparation. As a consequence, even under the best of circumstances, a working attorney was and still is extremely unlikely either to match the modern law school's ability to develop and sharpen analytical skills or to match its ability to convey legal theory and doctrine in a wide range of legal fields.

This focus and relative strength was particularly attractive when law school was regarded, as it initially was, as only a part of a lawyer's training; in the 1870s "no one . . . was suggesting that all three years of training should be spent in law school,"[102] much less that it must be spent in law school.[103] That view of law school as a complement to office training remained the dominant one for many years; indeed, before 1927, not one

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[102] STEVENS, *supra* note 33, at 25. *See* WILLIAM R. JOHNSON, SCHOOLED LAWYERS: A STUDY IN THE CLASH OF PROFESSIONAL CULTURES 24 (1978) (relating the 19th century view of law schools "as a useful supplement to the apprenticeship experience").

[103] To the contrary, in fact, the ABA initially sought only that, for purposes of meeting state bar requirements, the time spent in law school be treated equally with the time spent in a law office. *See* 4 ABA Proceedings 28-30 (1881) (Resolution 3) ("The time spent in any chartered and properly conducted law school ought to be counted in any state as equivalent to the same time in an attorney's office in such state.").

American jurisdiction required attendance at a law school.[104] In such an environment, the emphasis of law schools on legal reasoning and analytic skills provided a great advantage to those who could attend, as "[t]he vast majority of the legal profession until the turn of the [twentieth] century still experienced only on-the-job legal education."[105] Combined with the "general agreement that apprenticeship alone was inadequate preparation for the legal profession,"[106] law schools were in the enviable position of possessing a product that was desirable, in high demand and, realistically speaking, not replicable by practitioners who constituted the alternative method of legal training.[107] In sum, to the problem of an unfocused and uninterested cadre of teachers generally unskilled in the finer points of legal theory,[108] the professionalized and highly academic teaching corps of the Langdellian law school was an ideal solution.

It would be nice to stop here; unfortunately, however, this paean to law professors and law schools would not be complete without the striking of a few dissonant notes. The law office route to the Bar had begun to decline as early as the

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[104] First (I), *supra* note 10, at 350 n. 220. "[T]he tide [soon] turned. By 1930, four states had come to require attendance at law school." STEVENS, *supra* note 33, at 174.

[105] STEVENS, *supra* note 33, at 24. "In 1891, for example, eighty percent of all lawyers had no law school training prior to practice." 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, 263 (2005).

[106] STEVENS, *supra note* 33, at 30 n. 28. *See also id*. at 73 (noting that, in the 1890s, "everyone could agree that there was a need for better law schools to improve the wholly inadequate clerkship").

[107] Indeed, notwithstanding their (mostly) non-profit status, for most of their history law schools have borne a striking resemblance to what Warren Buffet has described as the soundest type of business investment, where value "arises from a product or service that (1) is needed or desired; (2) is thought by its customers to have no close substitute; and (3) is not subject to price regulation. The existence of all three conditions will be demonstrated by a company's ability to regularly price its product or service aggressively . . .." Warren E. Buffett, Chairman's Letter to the Shareholder's of Berkshire Hathaway Inc. (Feb. 28, 1992), at http://www.berkshirehathaway.com/letters/1991.html.

[108] Carl C. Monk & Harry G. Prince, *How Can an Association of Law Schools Promote Quality Legal Education?*, 51 J. LEGAL EDUC. 382, 382 (2001) ("even in the best apprenticeships there was little practical training"); Sonsteng, *supra* note 83, at 319 (noting that, among other things, "the apprentice system was criticized for its lack of theory"). *See also* PUE, *supra* note 70, at 20 (quoting a description by a former apprentice of the one time an attorney did try to help him with his studies: "it turned out to be very slow and very – I don't think he was a teacher, and so it was never repeated").

1890s,[109] and the decline accelerated in the ensuing decades,[110] pushed along by the introduction of new technology (the typewriter!) that made the economics of the apprentice model obsolete.[111] By general agreement, the eventual replacement of the law office route by law schools greatly improved the teaching of the analytical skills necessary to a successful career in the law. "But in large measure, nothing replaced the . . . part of the apprenticeship experience [involving] the in-person exposure to and hands-on experience with the thousand details of a lawyer's working life. That absence has been keenly felt ever since . . . ."[112] The next section discusses the many criticisms law schools have received on this basis, criticisms which began to be articulated soon after the apprenticeship experience fell into disfavor, and which also are important to understand in assessing the necessity for reform.

II. **What Law Schools Fail to Do**

The transition to full-time faculty solved many problems, so much so that law schools went from supplementing the education received in apprenticeships and clerkships to "effectively becom[ing] the only portal of entry to the profession."[113] Such success, however, brought the new problem of legal education being divorced from legal practice. The problem stemmed from the use – or overuse, rather – of the case method. While "no system [has] yet been devised that [can] began to compete with the case method as a means of teaching the basic analytical skill of 'thinking like a

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[109] STEVENS, *supra* note 33, at 106 n. 32.
[110] Appleman, *supra* note 105, at 267.
[111] *See* First (I), *supra* note 10, at 361 n. 295 (noting that "[t]he typewriter . . . won the war against law office training because there was no longer need for clerk-copyists learning the law," quoting Stolz, *Training for the Public Profession of the Law (1921): A Contemporary Review*, in H. PACKER & T. EHRLICH, NEW DIRECTIONS IN LEGAL EDUCATION 227, 234 (1972)).
[112] Furlong, supra note 30, at 8.
[113] STEVENS, *supra* note 33, at 238.

lawyer,'"[114] when law schools became the near-exclusive suppliers of professional legal instruction and the case method became the near-exclusive method of delivering that instruction, a case of "too much of a good thing" developed. It was as if your doctor told you that spinach was good for you and you went from eating no spinach at all to eating nothing but spinach. The overly academic nature of the training provided by the Langdellian law school was recognized as a problem almost immediately,[115] became the subject of a law review article in 1917,[116] and then received considerable attention throughout the 1920s, when Alfred Z. Reed's series of reports for the Carnegie Foundation began to be published.

Reed got to the nub of the matter in his first report, in 1921, in a chapter entitled, "Inadequate Provision for Legal Training." In that chapter, he stated that "[t]he failure of the modern American law school to make any adequate provision in its curriculum for practical training constitutes a remarkable educational anomaly."[117] Reed returned to this theme in his next report, in 1928, as he critically noted that "[t]here is probably no other practical calling the preparation for which is so unrelievedly academic as that which is provided for American lawyers by most American law schools."[118]

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[114] *Id*. at 268. This assertion becomes even more unassailable if one factors in the case method's cost-effectiveness. *See* Erwin Chemerinsky, *Rethinking Legal Education*, 43 HARV. CIV. RTS.-CIV. LIB. L. REV. 595, 595 (2008) ("It is . . . very cost-effective to have one teacher in front of a large number of students.").

[115] *See* FRIEDMAN, *supra* note 27, at 533-34. Professor Friedman quotes a letter written to Harvard President Eliot in 1879 by the dean of the faculty at Harvard, Ephraim Gurney. Gurney complained that Langdell's approach would "'breed professors of Law not practitioners,'" would keep students ignorant of the "'actual administration'" of the law, and would leave them "'helpless'" upon graduation to attend to "'the practical side'" of law office work. *Id*. (quoting Ephraim Gurney).

[116] William V. Rowe, *Legal Clinics and Better Trained Lawyers – A Necessity*, 11 ILL. L. REV. 591 (1917).

[117] REED, *supra* note 66, at 281.

[118] ALFRED ZANTZINGER REED, PRESENT-DAY LAW SCHOOLS IN THE UNITED STATES AND CANADA 215 (1928). In a testament to the continuing validity of Reed's 1928 observation, more than eight decades later another critic, Paul Lippe, the founder of LegalOnRamp, noted the following:

> If I need some insight into the future of medicine, I might head over to Stanford Medical School. If I wanted to learn about likely directions in finance and hedge funds, I might visit Penn's Wharton. If I were looking to make investments in computing, I might

The theme became a perennial one in assessments about American legal education. It was taken up by the Legal Realists in the 1930s and 1940s. The prominent Realist Jerome Frank gave voice to the theme in his 1932 article, *Why Not a Clinical-Lawyer School?* [119] The next year, Frank summarized his view in a speech to the ABA Section on Legal Education:

> The Law student should learn, while in school, the art of legal practice. And to that end, the law schools should boldly, not slyly or evasively, repudiate the false dogmas of Langdell. They must decide not to exclude, as did Langdell -- but to include -- the methods of learning law by work in the lawyer's office and attendance at the proceedings of courts of justice. . . . They must repudiate the absurd notion that the heart of a law school is its library.[120]

Along the same lines, a 1944 report of the AALS Curriculum Committee, written by another prominent Realist, Karl Llewellyn, noted that the consequences of failing to teach most legal skills were substantial, namely, a failure to produce "reliable professional competence on the by-product side in half or more of our end-product, our graduates."[121]

While it would not be accurate to say that law schools completely ignored these criticisms,[122] their repetitive nature persuasively suggests that the response, collectively,

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> arrange a tour of a lab at MIT. If I decided to learn something about where legal practice, law firms, and legal departments will be in 2014, where would I go? Not to law school.

Paul Lippe, *Welcome to the Future: Time for Law School 4.0*, June 22, 2009, http://amlawdaily.typepad.com/amlawdaily/2009/06/school.html (noting additionally that "[r]elative to other professional schools, law schools are extremely disengaged from professional practice").

[119] Jerome Frank, *Why Not a Clinical-Lawyer School?*, 81 U. PENN. L. REV. 908 (1932).

[120] Jerome Frank, *What Makes a Good Legal Education?* (1934) (unpublished speech), *cited in and quoted by* STEVENS, *supra* note 33, at 156-57, 164 n. 10; *see also* JEROME FRANK, COURTS ON TRIAL 231 (1949) ("Is it not plain that . . . our law schools should once more bring themselves into close contact with what clients need and what courts and lawyers actually do?").

[121] AALS Proceedings, 1944, 168. For additional commentary on the arguments of the Legal Realists, see Jay M. Feinman, *The Future of Legal Education*, 29 Rutgers L.J. 475, 476-77 (1998); Sonsteng, *supra* note 83, at 330-31.

[122] It would be accurate, however, to say that the responses were inadequate, involving a few small programs – some of which were abandoned after only a few years – at a small number of schools. *See* STEVENS, *supra* note 33, at 162, 214-15.

was inadequate, as indeed it was. Only in the 1970s, spurred on by key grants from the Ford Foundation beginning in 1968, did the response extend beyond the realm of the marginal. A few years after the first grants, almost half the law schools had some type of clinical program.[123] Federal government grants kept the momentum going for expansion of clinical programs with additional funding, authorized under Title XI of the Higher Education Act of 1968.[124]

Still, more than marginal hardly means sufficient, however, and so the familiar theme that law schools failed to give sufficient weight to practical training continued to be heard. In 1979, for example, the ABA's special task force on lawyer competence released a report that stressed again the need for law schools to better foster skills development.[125] The same call was made in 1992, in the 1992 MacCrate Report, which also was issued by the ABA (and funded largely by the Ford Foundation).[126] The MacCrate Report recognized criticism of law schools for placing too much emphasis on theory to the detriment of practical experience.[127] It urged more teaching and testing of practical and professional skills.[128] Following the MacCrate Report, clinics continued to grow, but not enough to quell the concerns of critics. Thus, additional critical reports have followed, among the most recent being the latest Carnegie Foundation Report

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[123] *Id*. at 216. *See* Sonsteng, *supra* note 83, at 330-31.
[124] STEVENS, *supra* note 33, at 230 n.97.
[125] AMERICAN BAR ASSOCIATION, SECTION OF LEGAL EDUC. AND ADMISSIONS TO THE BAR, REPORT AND RECOMMENDATIONS OF THE TASK FORCE ON LAWYER COMPETENCY: THE ROLE OF THE LAW SCHOOLS 3-5 (1979) (urging, in addition to expanded emphasis on skills development, an improvement in faculty-student ratios and continuous evaluation rather than a single examination). As were the similar recommendations of John Reed more than half a century before, the recommendations made in the 1979 report "were largely ignored." Sonsteng, *supra* note 83, at 332.
[126] SECTION ON LEGAL EDUC. & ADMISSIONS TO THE BAR, AM. BAR ASS'N, LEGAL EDUCATION AND PROFESSIONAL DEVELOPMENT – AN EDUCATIONAL CONTINUUM (1992) [hereinafter MACCRATE REPORT].
[127] *Id*. at 5.
[128] *Id*. at 330-36.

("Carnegie Report")[129] and an appraisal of legal education called Best Practices for Legal Education ("Best Practices").[130]

The 2007 Carnegie Report was the more extensive of the two. That Report utilized an analytical framework recognizing the need for law students to receive training in what it termed three "apprenticeships": (1) a cognitive or intellectual apprenticeship, (2) a practical apprenticeship of skill, and (3) an apprenticeship of professional identify and purpose, with the aim of the last apprenticeship "to teach the skills and inclinations, along with the ethical standards, social roles, and responsibilities that mark the professional."[131] The Report noted that law school education "clearly tilts the balance toward the cognitive and intellectual" and is deficient in the second and third apprenticeships, with "neither practical skills nor reflection on professional responsibility figur[ing] significantly in the[] legal education" of many students.[132] Echoing earlier studies, it concluded that "[a] more adequate . . . legal education requires a better balance among the [three] apprenticeships."[133] The Report also found that the way law schools assess student performance is underdeveloped.[134]

Best Practices leveled a similar critique. Spearheaded by University of North Carolina Law School Professor Roy Stuckey, Best Practices concluded that law schools need to expand their educational goals.[135] In one more sounding of a very familiar note,

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[129] *See* WILLIAM M. SULLIVAN ET AL., EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW (2007) [hereinafter CARNEGIE REPORT].
[130] *See* ROY STUCKEY ET AL, BEST PRACTICES FOR LEGAL EDUCATION 18-19 (1st ed. 2007), http://lawteaching.org/resources/books/bestpracticesforlegaleducation2007/stuckey-roy-bestpracticesforlegaleducation2007.pdf [hereinafter BEST PRACTICES].
[131] CARNEGIE REPORT, *supra* note 129, at 27-28.
[132] *Id*. **at 79**.
[133] *Id*. at 147.
[134] *See id*. at 164-65 (noting that typical law school assessment methods lack "meaningful feedback" and that "[n]either student nor faculty learning is likely to be optimized by" the use of those methods). For additional discussion regarding law school assessment methods, see *infra*, Section IV(B)(4).
[135] *See* BEST PRACTICES, *supra* note 130, at 18-19.

Stuckey's report determined that law schools devote too much attention to preparing students for assessment within the walls of the school, and not enough time preparing them for the Bar examination or the practice of law.[136] To achieve a more prepared student body, the report recommended that schools focus on improving "the competence and professionalism of their graduates, and attend to the well-being of their students."[137]

These two 2007 reports have been treated respectfully by the law school establishment, but history to this point suggests that to expect more than minor movement toward a more practice-based curriculum is to open oneself up to inevitable disappointment.[138] Sadly, it is an exaggeration with more than a kernel of fact to say that, like the weather, everyone talks about law school reform, but nobody ever does anything about it. Indeed, despite almost a century of calls for a more practical curriculum, "in legal education, a graduating student may have taken eighty-five to ninety credits and it is possible, it commonly happens, that the student will have earned only three to five hours of that total amount in a skills course."[139] In truth, in his second Carnegie Report, issued more than eighty years ago, Alfred Reed identified both the

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[136] *Id*. at 15-16.
[137] *Id*. at 18.
[138] *See* Cassidy, *supra* note 23, at 1517,1531(stating that despite "the Carnegie Report's clarion call for greater emphasis on practical skills," "curricular reform in legal education will occur slowly, if it occurs at all," and similarly characterizing law schools' response to the Carnegie Report through 2012 as "slow"); Steven C. Bennett, *When Will Law School Change?*, 89 NEB. L. REV. 87, 103 (2010) (claiming that "the 2007 Carnegie Report has encountered widespread indifference within the legal academy" (internal quotation marks omitted)); *see also* Robert F. Blomquist, *Some Thoughts on Law School Curriculum Reform: Scaling the Mountainside*, 29 VAL. U. L. REV. 641 (1995) (discussing the slow pace of curricular reform up to 1995).
[139] Richard K. Neumann, Jr., *Models from Other Disciplines: What Can We Learn from Them?*, J. ASS'N LEGAL WRITING DIRS. 165,165 (2002). *See also* R. Michael Cassidy, *supra* note 23, at 1516 n.4 (noting that "[a]t most law schools in the United States, participation in a clinic is still not required for graduation").

major obstacle to deep and effective reform and the reason why the same criticisms of legal education have since appeared again and again:

> The admission directly into practice of applicants who have received no training outside the college and professional school cannot be justified on the ground that they are adequately prepared to practice law. It can be justified, if at all, only on the ground that the missing phase of their preparation cannot be supplied under existing conditions.[140]

The implication, of course, is that should "existing conditions" change in a way that makes sufficient practical training possible, the standing of law schools that do not change will rightly be called into question. In Reed's words, in such a case, the education that status quo schools would offer would no longer be capable of being "justified." On the other hand, all talk of deep and effective reform is an academic exercise merely if "existing conditions" are, alas, permanent ones as well. The central questions raised for legal educators, then, are (1) whether a change in "existing conditions" has occurred such that a meaningful and beneficial correction to Langdell's overly academic approach is now possible, and (2) whether, in all events, defenders of the status quo can maintain the current system. Sections III and IV(A), *infra*, provide support for our view that the status quo cannot long be maintained. Change is coming; the only choice for legal educators is whether they will act early and creatively enough to make the post-Langdellian law school an improvement in terms of the quality of education provided, i.e., to make it a law school that finally remedies the deficiencies that Reed and his successors have highlighted for almost a century. Do "existing conditions" allow for such improvement? The answer is an ironic yes for, as we discuss

[140] REED, *supra* note 118, at 215. *See also* REED, *supra* note 66, at 379 (lamenting the lack of "practical training in advising clients or in conducting litigation" in the law school curriculum, but conceding that the case method provided "the most important service that, *under existing conditions*, any law school can render" (emphasis added)).

at length in Section IV, the same internet and communications technologies that threaten the existence of the traditional, place-based law school also provide the means for its salvation. In sum, the remainder of this article holds that, post-internet, conditions have changed, in a way that makes major change of some type inevitable no matter what legal educators do, and also makes possible – if legal educators act wisely – the type of change legal education reformers have sought since the heyday of the silent film era.

III. **What Law Schools Are Facing**

Permanence is the illusion of every generation, to the comfort of some and to the distress of others. "May you live in interesting times," the purported Chinese curse, is to wish upon someone a shattering of this illusion.

The illusion may be a helpful evolutionary adaptation. How could we plan, how could we get anything done, if we let every possible thing that could go very wrong loom large in our imaginations? Better to imagine tomorrow will be the same as today, that the ground will not shift below us as we sleep, that our plane will not fall from the sky. After all, as Calvin Coolidge said, "[i]f you see ten troubles coming down the road, you can be sure that nine will run into the ditch before they reach you and you will have to battle with only one of them."[141] Better to save our strength and our energy for the one trouble that won't run off the road. No need to lose sleep now – who knows which trouble is heading our way? As the joke says, economists have predicted nine of the last three recessions. So it goes as it goes, and generations pass without much

[141] *See* HERBERT HOOVER, THE MEMOIRS OF HERBERT HOOVER, v. 2. 55-56 (1951).

change, or nothing that can't be handled, until one day, at least figuratively, you're awakened as you sleep.[142]

Human beings maintain this belief in the permanence of current practices and arrangements even though comfortable worlds are shattered all the time. We have done much work with immigrants, and, in particular, with asylum applicants. The latter group includes many people who have experienced ground-shifting changes. People in war torn countries can experience such changes. People whose country disappears as lines are redrawn on the map can experience such changes. Look at a globe from fifty years ago -- how dated it is!

Other changes, never to be recorded in the great books of history or outlined on the face of a globe, can still seem shattering to those closest to the shift. These smaller types of changes seem to be occurring with greater rapidity in recent years. Consider the following.

"You've Got Mail" was the then-ubiquitous greeting received by users of AOL whenever they received a new e-mail message. (Today, reports about AOL's email service often include some form of the word "embarrassed" and are apt to begin along these lines: "An AOL email account is a bit of a running joke. Who still has these things?").[143] In a direct reference to the AOL greeting, "You've Got Mail" also was the name of a 1998 movie, starring Tom Hanks and Meg Ryan. The two main characters in the movie both worked in bookstores. Meg's store was small and independent, and it

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[142] It is one thing to be jolted awake by a nightmare; it is even worse to awaken into a nightmare. For many organizations, still slumbering and lumbering along as if nothing much has changed, "[t]he realization of the nightmare is underway. And that nightmare is the utter collapse of the business model." Danielle Sacks, *The Future of Advertising*, FAST COMPANY, Nov. 17, 2010 (remarking upon the state of the advertising industry (internal quotation marks omitted)), http://www.fastcompany.com/node/1702130/print.

[143] Rebecca J. Rosen, *The Politicos and Media Bigshots Who Still Use AOL Email*, THE ATLANTIC, Sept. 9, 2011, http://theatlantic.com/technology/archive/2011/09/the-politicos-and-media-bigshots-who-still-use-aol-email/244845/.

was being crushed by Tom's store, which is portrayed as an unstoppable force. (Tom's store was meant to resemble the stores of a large national chain, such as Borders, the book-selling giant recently bankrupted by, effectively, competition from Amazon.com and Barnes & Noble, the latter of which seems likely to face bankruptcy soon.).[144] A little more than a year after the movie was released, AOL announced a merger with Time Warner. At the time of the announcement, the merger was, by stock valuation (approximately $350 billion), the largest in history. (When AOL was spun off from the merged company in 2010, the value of the merged company was down to approximately $60 billion). AOL, in an effort to rebrand itself, recently bought the Huffington Post, an online opinion leader that did not exist until 2005. (The Huffington Post's editor and founder, Arianna Huffington, was placed in charge of all of AOL's content. According to some measures, by 2011, the Huffington Post received more internet traffic than the New York Times.).[145] The Huffington Post employs writers such as Howard Fineman, who recently moved to the Huffington Post from Newsweek magazine, the once great rival to Time Warner's flagship property, Time magazine. For its part, Newsweek was sold in 2009 for one dollar; the next year it merged with The Daily Beast, an online opinion site started in 2008. Newsweek recently ceased

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[144] *See* Jeffrey A. Trachtenberg & Martin Peers, *Barnes & Noble Seeks Next Chapter*, WALL ST. J., Jan 6, 2012 (noting that while, in "the 1990s, Barnes & Noble was known as a carnivorous competitor with the power to wipe out independent bookstores," "technological change has transformed the company from a dominant retailing force that left smaller booksellers quaking in fear to a struggling giant"); Peter Osnos, *The Endangered Fate of Barnes & Noble*, THE ATLANTIC, Feb. 5, 2013 (noting that while "Barnes & Noble once seemed to be becoming too powerful," lackluster sales and massive store closures (approximately 20 a year for the next decade), suggest "long-term decline"), *at* http://theatlantic.com/business/archive/2013/02/the-endangered-fate-of-barnes-noble/272865. *See also* Julie Bosman & Michael J. de la Merced, *Borders' Bankruptcy Shakes Industry*, N.Y. TIMES, Feb 17, 2011, at B1 (noting the February 2011 bankruptcy filing of the now liquidated bookselling giant that "[i]n the 1990s . . . helped wipe out many mom-and-pop independent stores").

[145] Steve Myers, *False Comparisons Between New York Times and Huffington Post Obscure True Difference*, http://poynter.org (June 20, 2011).

publishing a print edition,[146] incidentally delivering an additional minor blow to one of the original "communications" giants, the reeling U.S. Postal Service.[147] Newsweek is now edited by Tina Brown, the founder and editor of The Daily Beast.

There's something happening here -- do law schools need to know what it is? In our view, the answer is yes, and clearly so. The internet, the driver of all the changes and developments noted above, is a technology and a tool that, for the reach and extent of its often disruptive and its often liberating effects, can be compared only with the printing press. Of Gutenberg's invention, Elizabeth Eisenstein, a careful and meticulous historian of immense reputation, wrote (favorably quoting Renaissance scholar Myron Gilmore) in her two-volume magnum opus, *The Printing Press as an Agent of Change*, that "'[i]t opened new horizons in education and in the communication of ideas. Its effects were sooner or later felt in every department of human activity.'"[148] So too it is, or sooner or later shall be, with the internet.[149] It means something that bookstores thought impregnable became bankrupt a dozen years later. It means something that venerable newspapers, long regarded by so careful an investor as Warren Buffett as the "'ultimate business,'"[150] now find themselves not only out-competed by recently formed

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[146] Doug Stanglin, *'Newsweek' to end print edition in December*, USA TODAY, Oct. 18, 2012, at http://www.usatoday.com/story/ondeadline/2012/10/18/newsweek-print-digital-edition/1640753/.

[147] *See* Jennifer Levitz & Eric Morath, *Saturday Mail Delivery Nears End*, WALL ST. J., Feb. 7, 2013, at A6 (noting postal service decision, taken in light of an almost 60% decrease in stamped mail during the last decade, to end routine Saturday delivery in order "to curb losses that ballooned to $15.9 billion in its most recent fiscal year"). *See also* Eric Morath, *Plan to End Saturday Mail Delivery Delayed*, WALL ST. J., Apr. 11, 2013, at A3 (noting both the $15.9 billion deficit and legislation passed by Congress to block the postal service's decision to end routine Saturday delivery).

[148] I ELIZABETH L. EISENSTEIN, THE PRINTING PRESS AS AN AGENT OF CHANGE 28 (1979) (quoting MYRON P. GILMORE, THE WORLD OF HUMANISM 186 (1952)).

[149] Indeed, even one particular utilization of the internet – to construct online classrooms -- has itself been compared to the historical importance of the printing press. *See* Annie Maccoby Berglof, *World wise web*, FINANCIAL TIMES, Nov. 10-11, 2012, House & Home section at 2 ("construction of online classrooms from the world's top universities may be as historic as the invention of the printing press").

[150] Alistair Barr, *Newspapers Face "Unending Losses," Buffett Says*, May 2, 2009, *at* http://www.marketwatch.com/story/newspapers-face-unending-losses-buffett-says. During the mid-

internet startups, but also so hopelessly positioned that, in Buffett's words, "[t]he skid will almost certainly continue."[151] It means something when new businesses once considered a threat to existing businesses (*e.g.,* CD Now versus what are anachronistically called "record stores") find themselves overtaken only a few years later by digital business models (*e.g.*, iTunes). And it means something that this list could be extended almost indefinitely, to video stores, travel agents, advertising agencies, book publishers and more. It means most of all that there must be a presumption against the illusion of permanence -- even if your business model has survived intact for more than a century. The internet is cutting a new and wide swath through, as Eisenstein said of the printing press, every "field of human enterprise"[152] -- law schools will not be an exception. We indeed live in interesting times.

1980s, in the halcyon days of the newspaper industry, Buffett elaborated on why "[t]he economics of a newspaper were excellent, among the best in the business world." *See* Warren Buffett, Chairman's Letter to the Shareholders of Berkshire Hathaway Inc. (Feb. 25, 1985), *at* http://www.berkshirehathaway.com/letters/1984.html (explaining that once a newspaper has achieved dominance in a particular market, it was safe from competition: "[T]he profits of third-rate newspapers are as good or better [than first-class newspapers.] Good or bad, [newspapers] will prosper. This is not true of most businesses . . .."). *See also* Barr, *supra* (noting that pre-internet, "the newspaper business was as easy a way to make huge returns as existed in America," with "staggering returns that could be simply explained" by newspapers' position as "the primary source of information for the American public," including the information provided in advertising).

[151] Barr, *supra* note 150. *But see* Steve Jordon, *Buffett to buy 63 newspapers*, OMAHA WORLD-HERALD, May 18, 2012 (noting Buffett's May 2012 purchase of "63 daily and weekly newspapers for $142 million," albeit for a fraction of their 2007 stock market value), http://omaha.com/article/20120517/NEWS01/120519629. One analyst has explained that Buffett distinguishes between small "community" newspapers featuring news of a very local nature and larger "metropolitan" papers, with only the former retaining investment value. *See* John Gerard Lewis, *Beware of Buffett's bet on newspapers*, MARKETWATCH, Oct. 8, 2012, http://www.marketwatch.com/story/beware-of-buffetts-bet-on-newspapers-2012-10-08?link=MW_latest_news. In all events, one of the newspapers purchased in May 2012 was slated for closure six months later. Steve Jordon, *Buffett company to close Va. newspaper, cut 105 jobs*, OMAHA WORLD-HERALD, Nov. 14, 2012, http://omaha.com/article/20121114/MONEY/711149909. *See* Warren Buffett, Chairman's Letter to the Shareholders of Berkshire Hathaway Inc. (Mar.1, 2013), at 16 (Buffett notes that, despite his May 2012 newspaper purchase, his long-stated prediction that the "profits of the newspaper industry overall are *certain* to decline . . . still holds" (emphasis in original)), http://www.berkshirehathaway.com/letters/2012ltr.pdf.

[152] I EISENSTEIN, *supra* note 148, at 7.

The leaders of Harvard and MIT have specifically recognized, in fact, that the internet is set to enable the "single biggest change in education since the printing press."[153] Law school administrators and faculty members need to ask themselves whether the actions their schools are taking are commensurate with what might be expected during a period of twice-in-a millennium-change. If not, why? Perhaps what the law school community must do in order to engage the present reality with an appropriate sense of the level of change to be required is to internalize and apply to law schools the explanation that New York University Professor Clay Shirky has advanced regarding the startling shrinkage of the newspaper industry:

> Society doesn't need newspapers. What we need is journalism. For a century, the imperatives to strengthen journalism and to strengthen newspapers have been so tightly wound as to be indistinguishable. That's been a fine accident to have, but when that accident stops, as it is stopping before our eyes, we're going to need lots of other ways to strengthen journalism instead.[154]

Shirky, writing from the perspective of reporters, calls this idea "thinking the unthinkable"[155] because it posits the possibility of a world without newspapers. Replace "newspapers" with "traditional law schools" and "journalism" with "legal education" in the above paragraph and the thought becomes an unthinkable one for law professors. But the thought must be thought now if the ultimate result is not to be too little, too late, too bad.

It is, of course, true that there is no way of knowing exactly how events will play out. Sometimes, people who prefer the illusion of permanence will take the admission that perfect clarity about the future is lacking as a license to avoid the topic; before they

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[153] John E. Chubb & Terry M. Moe, *Higher Education's Online Revolution*, WALL ST. J., May 31, 2012, at A17.
[154] Clay Shirky, *Newspapers and Thinking the Unthinkable*, Mar. 13, 2009, http://www.shirky.com/weblog/2009/03/newspapers-and-thinking-the-unthinkable.
[155] *Id*.

engage in such "mere" speculation, they demand to know what the end result will be. Of those who make such a demand, Shirky notes that:

> [They] are really demanding to be told that we are not living through a revolution. They are demanding to be told that old systems won't break before new systems are in place. They are demanding to be told that ancient social bargains aren't in peril, that core institutions will be spared, that new methods of spreading information will improve previous practice rather than upend[] it. They are demanding to be lied to.[156]

In sum, if the internet revolution is a true revolution, as we believe it is, change will not be incremental but fundamental; not follow old paths but represent a break with the past; not be predictable but be unexpected; and not preserve "existing conditions" but destroy or radically alter them.

This is the reality that law schools must face.

IV. **How Law Schools Should Respond**

How does one respond in and to such an environment? In Section IV(A), below, we list and discuss some general recommendations that should inform and motivate the active response of law schools. In Section IV(B), we provide a more substantively detailed roadmap as to how traditional law schools must change if they are to remain viable in the twenty-first century, and discuss why choosing the path we propose will make all the difference. We write, first, from the perspective of wanting to preserve the place-based law school, for its strengths are considerable, but also from the recognition that major weaknesses need addressing. If those weaknesses are not addressed, current law schools will not survive and, moreover, will not deserve to.

A. *General Approach and Orientation*

[156] *Id*.

1. Do Not Respond with Uninformed Denial

As noted above, the first imperative is to not respond with denial. At the very least, do not dismiss the potential for change without knowing what arguments are being made by those persons who believe the law school status quo will not endure. Read, for example, the work of David Thomson[157] and Bill Henderson;[158] read David Barnhizer's article, *Redesigning the American Law School*.[159] Read, too, assessments about how technology has impacted and will continue to impact higher education generally, works such as *Disrupting College: How Disruptive Innovation Can Deliver Quality and Affordability to Postsecondary Education*,[160] and *The Department of Education's Meta-Analysis and Review of Online Learning Studies*.[161] For historical perspective, read Elizabeth's Eisenstein two-volume book on the printing press and its role as an agent for change.[162]

Learn about the millennial generation who are "born digital" and how their more networked and connected lives affect the way they approach learning.[163] Think about the implications of the fact that between 2000 and 2002, the largest group of first time

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[157] THOMSON, *supra* note 6.
[158] Henderson, *supra* note 2; Marc Galanter and William Henderson, *supra* note 87; Andrew P. Morriss & William D. Henderson, *Measuring Outcomes: Post-Graduation Measures of Success in the U.S. News & World Report Law School Rankings*, 83 INDIANA L. J. 791 (2008).
[159] David Barnhizer, *Redesigning The American Law School*, 2010 Mich. St. L. Rev. 249 (2010).
[160] Clay Christensen, Michael B. Horn, Louis Caldera and Louis Soares, *Disrupting College: How Disruptive Innovation Can Deliver Quality and Affordability to Postsecondary Education* (Center for American Progress and Innosight Instutute (Feb. 2011) *at* http://www.americanprogress.org/issues/2011/02/pdf/disrupting_college.pdf.
[161] Department of Education, Evaluation of Evidence-Based Practices in Online Learning A Meta-Analysis and Review of Online Learning Studies (Sept 2010), *at* http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf . Another recommendation is BEN WILDAVSKY, THE GREAT BRAIN RACE: HOW GLOBAL UNIVERSITIES ARE RESHAPING THE WORLD (2010).
[162] EISENSTEIN, *supra* note 148.
[163] JOHN PALFREY & URS GASSER, BORN DIGITAL: UNDERSTANDING THE FIRST GENERATION OF DIGITAL NATIVES (2008).

internet users were between two and five years old,[164] placing the oldest members of this group in college now – and in law school soon. Begin to understand how the emerging "participatory culture" is changing what one needs to learn to be fully prepared to function in the twenty-first century.[165]

Begin to explore the potential for law schools to employ teaching methods that utilize technology to a greatly enhanced degree. Read about flipped learning, for example, a teaching methodology that blends online lectures (which students view at their own pace as homework) with in-class instruction. By migrating lectures to the web, flipped learning can free face-to-face classtime for active learning, including Socratic dialogues, drafting exercises, simulations and role plays.[166] Investigate also innovations in adaptive learning, a technique using computer software first to assess what a student knows and then to adapt the content taught to the knowledge level of the student, thus providing a more personalized learning experience for each individual.[167] Consider as well the impact that gaming can have on education.[168]

Closer to home, monitor the impact that recent decisions by law schools to develop online programs for non-JD degrees has on programs at other schools, such as

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[164] THOMSON, *supra* note 6, at 26-27.

[165] Henry Jenkins, CONFRONTING THE CHALLENGES OF PARTICIPATORY CULTURE: MEDIA EDUCATION FOR THE 21ST CENTURY (MacArthur Foundation) *at* http://digitallearning.macfound.org/atf/cf/%7B7E45C7E0-A3E0-4B89-AC9C-E807E1B0AE4E%7D/JENKINS_WHITE_PAPER.PDF

[166] Jonathan Bergmann & Aaron Sams, FLIP YOUR CLASSROOM: REACH EVERY STUDENT IN EVERY CLASS EVERY DAY (ISTE/ASCD, 2012).

[167] For additional discussion of adaptive learning, *see infra* notes 283-284 and accompanying text. Computer-based adaptive learning is already being utilized by the Kaplan test preparation company for college students planning to take the LSAT and GMAT; by Khan Academy for younger students; and by many companies, such as Knewton, for a wide range of users.

[168] *See* James Gee, WHAT VIDEO GAMES HAVE TO TEACH US ABOUT LEARNING AND LITERACY (2003); James Gee, *Good Video Games and Good Learning*, at http://dmlcentral.net/sites/dmlcentral/files/resource_files/GoodVideoGamesLearning.pdf. Educational games are available for a variety of topics, including civics, *see* http://www.icivics.org/; climate change, *see* http://www.bbc.co.uk/sn/hottopics/climatechange/climate_challenge/; national conflicts, *see* http://www.peacemakergame.com/game.php; and even algebra, *see* http://www.dragonboxapp.com.

the decision by graduate tax law programs at, among others, Alabama, Georgetown, NYU and Boston University to offer their programs online. Read *Distance Learning in Legal Education: A Summary of Delivery Models, Regulatory issues and Recommended Practices*.[169] Attend a meeting of the Distance Learning in Legal Education Working Group, organized by Vermont Law School professors Rebecca Purdom and Oliver Goodenough.[170] Monitor the effectiveness and reaction of law graduates who take online bar preparation courses such as Themis.[171] Explore some of the new apps being developed for iPads and Androids to teach legal concepts.[172]

If you do all this, and still believe that nothing fundamental will change in legal education, you will at least be more prepared, should events prove you wrong, to recognize earlier that the trouble coming down the road is headed straight for you. And we do recognize that, given the unknowability of the precise pace of change, continuing to keep one's powder dry for a short time may, after considering the resources and particular situation of a given institution, be a prudent decision. As windows of opportunity can slam shut in an instant, however, there is all the difference in the world between inaction based on an informed prudence and inaction based on stubborn ignorance. The phrase "they never knew what hit them" was made to describe the fate of those who would cling to the latter course, for if the time for proactive decision-making is not upon us now, surely it has drawn nigh.

2. Understand that Past Accomplishments Will Not Offer Protection from Change

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[169] *See* http://www.law.harvard.edu/programs/plp/pdf/Distance_Learning_in_Legal_Ed.pdf.
[170] Started in fall 2011, the Working Group meets a few times each year. For more information, contact Rebecca Purdom, rpurdom@vermontlaw.edu.
[171] Themis Bar Review course, *at* http://corporate.themisbar.com/
[172] Law Stack is an Apple app for legal research loaded with various federal statutes. *See* www.lawstack.com/. Law School Dojo is an app with quizzes on legal concepts for a range of subject matters, including contracts, torts, civil procedure and international law. *See* http://lawschooldojo.com/.

The second imperative is to avoid reliance on the societal contributions law schools have made in the past as an argument for warding off change now. As Clay Shirky again has noted, "'You're gonna miss us when we're gone!' has never been much of a business model."[173] To assume a sense of gratitude for past contributions is to assume too much -- one would be better off preparing to answer the question, "What can you do for us now?" instead. A public grateful for a newspaper's past Pulitzer Prize-winning exposés revealing public corruption still will not want to pay for an inconvenient product that duplicates what they can get for free over the internet.[174] If a cheaper and more convenient legal education alternative appears, law schools must argue on the basis of their merits now.

3. Understand that Offering a Higher Quality Education May Not Offer Protection from Change When Lower Quality Alternatives Are Notably Cheaper and More Convenient

This is a hard pill to swallow, but swallow one must. Lower quality products prevail in the marketplace all the time. Traditional encyclopedias have asserted their superior quality against Wikipedia; traditional media have asserted it against internet-based media; record companies have asserted it against the mp3 format -- and none of those arguments are completely without merit. But it hasn't mattered enough to keep people from using Wikipedia, blogs, and iTunes, anymore than the Abbot of Sponheim's assertions five centuries ago regarding the superiority of scribe-copied manuscripts was

[173] Shirky, *supra* note 154.
[174] *See* Nathan Harden, *The End of the University as We Know It*, THE AMERICAN INTEREST MAGAZINE, Jan.-Feb. 2013, http://the-american-interest.com/article.cfm?piece=1352 ("If a faster, cheaper way of sharing information emerges, history shows us that it will quickly supplant what came before.").

able to turn readers away from printed books.[175] Nor is quality an unbeatable trump card for law schools. Quality is only one of many competing values.

Ah, but law is different! Surely, it might be said, law students with a choice would not decide to attend a law school regarded as decidedly inferior. But on what basis can one know this? The evidence suggests otherwise. The need to comply with ABA and AALS requirements, reinforced by state legislatures and state supreme courts, for the great bulk of schools keeps curricula differences and tuition within a relatively narrow range; those same requirements also tremendously disadvantage graduates of non-accredited schools. The combined effect is to make the choice that law students have essentially the choice offered by Henry Ford, who said that his customers could have a Model T in any color, as long as it was black.[176] No inferences about student choice can be fairly drawn under the present circumstances. It is to be remembered in this regard that, during much of the twentieth century when there was a real choice to be made, non-accredited and non-affiliated schools enjoyed much popularity, educating for many years more lawyers than their more credentialed competitors.[177] It was not unfettered student choice that led to the marginalization of law schools outside the AALS; as was stated at an AALS meeting in 1926 at which the continued growth of non-AALS schools was noted, "[t]he only way to stop these schools . . . is for the members of this Association to busy themselves in pushing with courts and legislatures the standards advocated by the American Bar Association."[178] Indeed, the fact that "the AALS was forced to enlist the aid of . . . the State" to gain control of the legal education

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[175] I EISENSTEIN, *supra* note 148, at 14 (noting that the Abbot argued that "words on parchment [could] last one thousand years" while "the printed word on paper . . . would have a shorter life-span").
[176] HENRY FORD & SAMUEL CROWTHER, MY LIFE AND WORK 72 (1922).
[177] *See*, *e.g.*, STEVENS, *supra* note 33, at 174 (noting that in the late 1920s, only one-third of law students were in AALS schools).
[178] 1926 AALS Proceedings 31-32 (remarks of Harry Richards).

market is fairly conclusive proof that its belief "that students could be convinced that schools with an AALS trademark offered a better product, a product that would provide access to higher paying jobs,"[179] over-estimated the weight students give to perceived quality. History shows instead that prospective law students may well choose what law school to attend based on other factors, if the penalty is not too great. Current practices of law school admissions offices prove this, too; what else are academic scholarships and other forms of tuition discounting but a way to use lower prices to persuade students to choose schools perceived to be of lesser quality?

The fact is, for any particular person, the best choice might be a "worse" school; an "inferior" school may well provide the pathway to a "superior" life. Cost and convenience matter, for very good reasons, to a lot of people. A quality product is a competitive advantage, but it does not *by itself* provide immunity from the risks of competition.

Today, of course, the licensing advantages that accrue to students of accredited schools do indirectly provide law schools full or partial immunity from competitors. But, in a time that is still at the start of the internet revolution,[180] it is a dangerous illusion to imagine that these regulatory advantages will never be seriously challenged. Indeed, online educators already have achieved notable successes with favorable accreditation recommendations from the American Council on Education[181] and in the larger political

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[179] First (I), supra note 10, at 350.

[180] As the co-founder of Netscape has noted, it is only now, "[s]ix decades into the computer revolution, four decades since the invention of the microprocessor, and two decades into the rise of the modern Internet, [that] all of the technology required to transform industries through software finally works and can be widely delivered at global scale." Marc Andreessen, *Why Software Is Eating the World*, WALL ST. J., Aug. 20, 2011, at C2.

[181] *See* Paul Fain, *ACE doubles down on prior learning assessment*, INSIDE HIGHER ED, Mar. 4, 2013 (noting the willingness of the American Council on Education, a membership association of 1,800 college presidents, to extend "credit recommendations to courses offered by non-accredited online providers" such as StraighterLine, Propero, and Coursera), at http://www.insidehighered.com/news/2013/03/04/ace-

arena.[182] The future promises more such developments. With specific regard to legal education, legislatures and other regulatory bodies still might balk at removing regulatory barriers for an internet-based law school when the school promised 50 percent of the quality of traditional schools at 75 percent of the price (please assume for purposes of the hypothetical that quality can be so precisely measured). It is doubtful, however, that they will hesitate to remove those barriers when the school appears ready to deliver 90 percent of the quality at 25 percent of the price.[183] And there is no reason to expect that the quality and price of online education will not so improve, and every reason – including the continued operation of Moore's law,[184] the continued collapse of computer data storage costs,[185] and the usual progress of disruptive technologies[186] – to suspect that it will.

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doubles-down-prior-learning-assessment, *see also* Tamar Lewin, *Five Online Courses Are Eligible for College Credit*, N.Y. TIMES, Feb. 6, 2013 (noting the decision of the "American Council on Education, the leading umbrella group for higher education . . . that five Coursera offerings were similar enough to traditional college courses to be eligible for credit"), at http://www.nytimes.com/2013/02/07/education/five-online-courses-are-eligible-for-college-credit.html?_r=0 .

[182] *See* Kevin Carey, *Obama, Rubio Agree on One Thing: Technology Could Fix the Higher Ed Mess*, SLATE, Feb. 13, 2013 (noting President "Obama's truly revolutionary proposal" to "establish[] a new, alternative system of accreditation that would provide pathways for higher education models and colleges to receive federal aid based on performance and results," a proposal that "would create a level playing field for firms that provide[] higher education services but aren't 'colleges' in the traditional sense of the word," i.e., online providers of education), at http://www.slate.com/blogs/future_tense/2013/02/13/state_of_the_union_moocs_obama_rubio_agree_on_using_tech_to_fix_higher_ed.html .

[183] The 25 percent figure is not a pie-in-the-sky number; we note, for example, that the online Western Governors University already offers a yearly tuition of less than $6,000 a year, considerably less than 25 percent of the annual tuition at most private universities. *Higher education: Not what it used to be*, THE ECONOMIST, Dec. 1-7, 2012, at 29, 30.

[184] Moore's Law, named after Intel co-founder Gordon Moore, began as a prediction that the number of transistors on a microchip could be expected to double every two years, and has now morphed into a more general expectation that the processing power of a microchip will double approximately every two years. That rate of increase in fact has held firm since Moore first made his initial prediction in 1965. The compounding implications of Moore's law are astounding. In the almost five decades since Moore's prediction, processing power has increased millions of times. Even if the rate of improvement slows, as some analysts predict, in twenty years the number of transistors on future chips will almost certainly be a hundred times what it is today.

[185] "Dropping costs of data storage, at least for individual devices, ha[s] a history that parallels that of Moore's law for integrated circuit transistor count. At least for magnetic disk storage, currently the predominant hardware, storage capacity per drive doubles approximately every 18 months." Steven C.

In large part, the vulnerability of law schools to competition based on factors other than perceived quality has arisen due to an explosion in the cost of legal education. In the ten years between 1998 and 2008, for example, the cost of a law school education rose by 74 percent at private schools and 102 percent at public institutions.[187] Since 2008, tuition at public law schools has risen an additional 40 percent from the 2008 level, while tuition at private schools has increased more than 20

Horii, *Archiving – Future Storage Trends and Technologies*, 2011, http://siimcenter.org/books/archiving/chapter-10-future-storage-trends-technologies. The implications of change that occurs at this rate are staggering; since 1956, the cost of digital storage has dropped from $10 million per gigabyte to one penny per gigabyte. *Id*. *See also* Scott Shane, *Data Storage Could Expand Reach of Surveillance*, N.Y.TIMES, Aug. 14, 2012, http://thecaucus.blogs.nytimes.com/2012/08/14/advances-in-data-storage-have-implications-for-government-surveillance/ (noting that "[t]he estimated cost of storing one gigabyte of digital data, adjusted for inflation to 2011 dollars, fell from $85,000 in 1984 to 5 cents in 2011"). Commercial services also provide low-cost data storage options. *See*, *e.g.*, http://aws.amazon.com/glacier/#pricing (storage at Amazon.com's Glacier service costs a monthly charge of a penny per gigabyte). And these costs are expected to continue to fall at an exponential rate. *See* Shane, *supra* note __ (predicting 3.3 gigabytes of data will cost just two cents to store by 2015). By the way, the average number of pages that can be stored per gigabyte is more than 100,000 for email files and almost 65,000 for Word files). *See How Many Pages in a Gigabyte?*, LEXISNEXIS, http://www.lexisnexis.com/applieddiscovery/lawlibrary/whitePapers/ADI_FS_PagesInAGigabyte.pdf.

[186] In several important books and many other publications, Harvard Business School Professor Clay Christensen has explained that while innovations rooted in disruptive technologies such as the internet often initially suffer from worse product performance in the mainstream market, such innovations have "other features that a few fringe (and generally new) customers value. Products based on disruptive technologies are typically cheaper . . . and, frequently, more convenient to use." CLAYTON M. CHRISTENSEN, THE INNOVATOR'S DILEMMA: WHEN NEW TECHNOLOGIES CAUSE GREAT FIRMS TO FAIL xv (1997). Christensen found that, when faced with the emergence of these technologies, incumbent firms forego creating products to serve the new customers who are attracted to price or convenience at the expense of quality and continue to focus on their existing markets and customers. *Id.* at xvii. But technologies can improve rapidly. And Professor Christensen further found that as long as there are some companies that decide to develop the disruptive technologies, the technologies will continue to improve. As they do, they become attractive to mainstream customers and eventually allow disruptive firms to overtake previously-dominant incumbents. Christensen provides many examples of this process occurring; for this and other reasons, his books constitute a disturbing cautionary tale for traditional law schools. *See generally* CHRISTENSEN, THE INNOVATOR'S DILEMMA, *supra*; CLAYTON M. CHRISTENSEN ET AL., SEEING WHAT'S NEXT: USING THE THEORIES OF INNOVATION TO PREDICT INDUSTRY CHANGE (2004); *see also* CLAYTON M. CHRISTENSEN & HENRY J. EYRING, THE INNOVATIVE UNIVERSITY: CHANGING THE DNA OF HIGHER EDUCATION FROM THE INSIDE OUT x-xi (2011) (noting that while Christensen previously had thought that his theories might not apply to higher education, he is now convinced that they do).

[187] News Editor, *Law School Faculties 40% Larger Than 10 Years Ago*, THE NATIONAL JURIST (Mar. 9, 2010) (documenting effect of increased hiring on increases in tuition).

percent from that level.[188] The "magic" of compounding makes the rate of longer-term increases appear even more shocking, e.g., "[b]etween 1985 and 2009, law school tuition rose 820 percent for in-state residents at public institutions and 375 percent at private institutions."[189] Due to these increases, private and non-resident public school tuition is commonly over $30,000 per year, with an upper range close to $60,000, while public universities usually charge residents an annual tuition of more than $20,000 per year.[190] As a result, an average law student who finances his or her tuition and living expenses through loans, can easily accumulate $100,000 to $200,000 in debt after three years of law school;[191] indeed, "[t]he average student graduates from law school today with over $100,000 of law school debt."[192] It is not frivolous to argue that an alternative that offers to significantly reduce these amounts, even at some cost to quality, would constitute a societal advance.

Indeed, under current circumstances, the quality argument is actually a very weak one. As long as those circumstances obtain, let the bar examination be the guarantor of quality. Law schools are hardly in a position to contend that the bar examination is inadequate to perform this gatekeeping function; that is what the system relies upon now. The system certainly cannot reasonably rely on the law schools to

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[188] Paul Caron, *NLJ: Law Schools Jack Up Tuition 4%-6% Despite 14% Decline in Applicants*, LAW PROF BLOG, (Aug. 18, 2012), http://taxprof.typepad.com/taxprof_blog/2012/08/nlj-law-schools.html .
[189] Barton, *supra* note 21, at __ (forthcoming).
[190] Illinois State Bar Association, *Special Committee on the Impact of Law School Debt on the Delivery of Legal Services, Final Report & Recommendations*, at 12 (March 8, 2013), http://www.isba.org/sites/default/files/committees/Law%20School%20Debt%20Report%20-%203-8-13.pdf.; David Segal, *Is Law School a Losing Game?*, N.Y TIMES, Jan. 8, 2011, at 1, http://www.nytimes.com/2011/01/09/business/09law.html?pagewanted=1&_r=1
[191] Gita Wilder, *Law School Debt Among New Lawyers: An After the J.D. Monograph* 8 (Nat'l Assn. for Law Placement (2007), http://www.americanbarfoundation.org/uploads/cms/documents/ajd_debt_monograph_2007_final.pdf.
[192] Illinois State Bar Association, *supra* note 190, at 1.

perform the gatekeeping function;[193] as discussed in Section II, *supra*, since the 1920s it has been consistently noted that the failures of law schools to adequately stress practical lawyering skills results in graduates not being ready to practice upon graduation. Under these circumstances, "quality" arguments have more than a hint of hypocrisy and self-interest about them. How can the exclusion of alternatives that could make it easier, i.e., make it possible, for more poor persons to attend law school be justified on the basis of the need to protect the public from unqualified lawyers when nearly a century of serious study has concluded that law schools currently turn out thousands of graduates unqualified to practice law? Quality, it seems, has been redefined to mean "very possibly less unqualified than" the bar exam-passing graduates of alternative schools. As serious and responsible, but much cheaper and much more convenient alternatives gain increasing appeal, this kind of quality argument will not and should not be enough to sustain the modern law school's regulatory advantages unless, in the interim between now and then, law schools demonstrate a true commitment to solving the problem of insufficient practical training that has been noted in every serious study since 1921. If such a happy and significant change were to occur, however, current regulatory advantages could be justified. The bar exam could be retained as a demonstration of a minimal level of doctrinal knowledge and reading ability (precisely the function it now mainly serves). Meanwhile, with accreditation requirements amended to mandate significant clinical and other experiential learning experience,

[193] This is true even though several schools -- the University of Wisconsin and Marquette law schools, for example -- actually do exercise exclusive control of the gatekeeping function, through the continued authorization of the diploma privilege. S*ee generally* STEVENS, *supra* note 33, at 26-27, 34 n. 57 (discussing the origins and history of the diploma privilege, which allows graduates of certain in-state schools to join the bar without passing a bar exam). Although once authorized in more than half the states, *see id*. at 34 n. 57, a generally applicable diploma privilege has now apparently been eliminated everywhere but in Wisconsin.

graduation from an accredited law school would, for the first time, signal exposure to and awareness of a broad range of lawyering skills. Under these radically different circumstances, a "quality" argument would offer protection from further change because law schools already will have changed in the way necessary to make a truly quality legal education possible.

4. Experiment Experiment Experiment

In order to raise legal education quality to the level needed, law schools need to respond experimentally. For law school leaders, this will prove a difficult managerial task. Law school culture -- "remarkably static, non-adaptive, and resistant to change"[194] -- does not favor experimentation. Law schools do, after all, employ a business and educational model developed in the nineteenth century[195] -- and most professors like it

[194] Susan Sturm & Lani Guinier, *The Law School Matrix: Reforming Legal Education in a Culture of Competition and Conformity*, 60 VAND. L. REV. 515, 520 (2007). *See* Katherine Mangan, *As They Ponder Reforms, Law Deans Find Schools 'Remarkably Resistant to Change'*, CHRON. HIGHER EDUC., Feb. 27, 2011 (attributing the quotation noted in the article title to Dean Erwin Chemerinsky), http://chronicle.com/article/As-They-Ponder-Reforms-Law/126536/. *See also* Bennett, *supra* note 138, at 105 ("Law schools . . . seem to resist change even beyond the norms of most educational institutions.").

[195] *See supra*, Sections I and II. *See also* Larry E. Ribstein, *Practicing Theory: Legal Education for the Twenty-First Century*, 96 IOWA L. REV. 1647, 1674 (2011) (stating that "legal educators . . . have not fundamentally moved from the insular approach Langdell instituted 140 years ago"); Rubin, *supra* note 66, at 610-11 (noting that the dominant law school "educational model . . . treats the entire twentieth century as little more than a passing annoyance" and "is not only out of date, but . . . was out of date one hundred years ago"); Sturm & Guinier, *supra* note 194, at 520 (lamenting that, "for the last 130 years, law schools have been tethered to their traditions"); Rakoff & Minow, *supra* note 65, at 597 ("American legal education has been an astonishingly stable cultural practice," and "remains remarkably similar to the curriculum invented at the Harvard Law School by Christopher Columbus Langdell"); Margaret Martin Barry, *Practice Ready: Are We There Yet?*, 32 B.C. J. L & SOC. JUSTICE 247, 250 (2012) ("Despite almost a century of critique that [law schools do] not provide enough preparation for the profession, law schools have been reluctant to substantially modify" their approach); Sara K. Rankin, *Tired of Talking: A Call for Clear Strategies for Legal Education Reform: Moving Beyond the Discussion of Good Ideas to the Real Transformation of Law Schools*, 10 SEATTLE J. SOCIAL JUSTICE 11, 17-18 (2011) ("Although reformers have been wrestling with the form of legal education for more than 140 years, it essentially remains unchanged."); Benjamin H. Barton, *A Tale of Two Case Methods*, 75 TENN. L. REV. 233, 247 (2008) ("it is striking how similar current law schools are to the Harvard Law School of the 1870s"); Sonsteng et al., *supra* note 83, at 318 ("Today's method of teaching law students is not a model of maturation and modernization; it is older than the telephone, the game of basketball, blue jeans, and Coca-Cola")

that way, thank you very much. The type of "experimental" project most favored by administrators is one that has successfully been implemented elsewhere, preferably at many schools.[196] Such projects, of course, are actually not experimental, and such an approach would have led general interest newspapers, for example, to avoid the internet until . . . well, they would still be avoiding the internet. What can be a healthy dose of caution in ordinary times can be fatal in revolutionary ones.

The goal is to find out what works in the internet era, and the disconcerting fact is there is no book to consult that will yield a certain answer. Experimental projects -- truly experimental projects -- must be tried. Such projects may very well fail; indeed, many will fail. A culture that punishes such failures merely because they failed is sending a very strong signal that it really does not want experimentation at all.[197] In this era, an absence of failure means an absence of imagination and innovation, or the presence of a culture that stifles both. If anything deserves to be punished, it would be that absence of failure. Faculty should consider it a danger sign for their school if other institutions with which they are familiar seem to embody this entrepreneurial point of view -- which values failure for the lessons it teaches -- more than their own institution embodies it.

(citations omitted); Nancy B. Rappaport, *Eating Our Cake and Having It, Too: Why Real Change is So Difficult in Law Schools*, 81 IND. L.J. 359, 366 (2006) ("there's very little innovation at the core of legal education"); Gary A. Munneke, *Legal Skills for a Transforming Profession*, 22 PACE L. REV. 105, 123 (2001) ("While society and the practice of law have undergone radical changes, legal education has changed little in the past one hundred years.").

[196] In this approach to innovation, law schools follow F.W. Cornford's "first rule of academe": that "nothing should ever be done for the first time." Andrew Delbanco, *College at Risk*, Chronicle of Higher Education, Feb. 26, 2012, http://chronicle.com/article/College-at-Risk/130893/. *See* Bennett, *supra* note 138, at 105 ("Law schools are steeped in a culture of competition and conformity" (internal quotation marks omitted)). *See also* Goodhart, *supra* note 48, at 1832 (stating that "in a university there is often the feeling that change is dangerous and must, if possible, be avoided[,] . . . a tendency to say 'Whatever is, is right'").

[197] "[G]ood . . . ideas rarely emerge fully formed, like Athena from the head of Zeus; rather they evolve in a discursive and unpredictable fashion. The challenge is to enable this process rather than squelch it . . .." David A. Shaywitz, *Where the Action Is*, WALL ST. J., Apr. 22, 2011, at A11 (review of PETER SIMS, LITTLE BETS: HOW BREAKTHROUGH IDEAS EMERGE FROM SMALL DISCOVERIES (2011).

What experiments are likely to yield important results?[198] It is impossible to know with certainty or specificity -- who would have guessed that the "list" that Craig Newmark initially made available to his friends (and which later grew into Craigslist) would play a large role in undermining the financial viability of the newspaper model?[199] In general, however, it can be said that the two greatest vulnerabilities of law schools are the high price of legal education and the continued failure to take a broader and deeper approach to practical training. Given these vulnerabilities, law schools should, as we earlier noted, take the initiative to experiment with online learning models to drive down costs, while using the savings to improve practical training. A failure to so act on both fronts will maximize the threat that stems from the cheaper costs of alternative models of legal education by making such schools more attractive to price-sensitive students and by making the maintenance of the traditional law schools' regulatory advantages more difficult to justify. Better to offer instead, as we have noted, a truly quality professional education that purely online educators would find impossible to match.

5. Act with a Sense of Urgency

Finally, in any institution with more than a century of success behind it, there is always a tendency toward complacency, toward believing that, if there is a threat, it can be dealt with later. In this era, however, law schools need to *act* with a sense of urgency. The implication of the phrase "internet time," meaning an accelerated pace of

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[198] Dean David Yellen has noted that "ABA standards have an infrequently used (and nontransparent) variance mechanism." David Yellen, *Loosening the ABA's Grip on Law Schools*, THE FACULTY LOUNGE (Feb. 21, 2013), http://www.thefacultylounge.org/2013/02/loosening-the-abas-reins-on-law-schools.html. In order to encourage the necessary degree of experimentation, this mechanism should be aggressively utilized by law schools and liberally interpreted by the ABA. *See* American Bar Association, 2012-13 Accreditation Standards, Standard 802 and Interpretation 802-1, http://www.americanbar.org/content/dam/aba/publications/misc/legal_education/Standards/chapter_8_2012_2013_aba_standards_and_rules.authcheckdam.pdf

[199] *See* Buffett, *supra* note 151 (noting that "[r]evenues from 'help wanted' classified ads – long a huge source of income for newspapers – have plunged more than 90%" since 2001).

developments, is that there is a heightened risk that change may soon be forced upon you, or leave you behind; a risk that the race may be over before you even begin to run it. That risk is multiplied in the current environment, in which a multitude of external developments may weaken law schools financially.[200] It is always easier to make changes from a position of strength rather than from a position of weakness. Among other things, acting from strength allows one to take more risks; to survive more mistakes; to drive better bargains with outside entities; to choose to act on one's long-term rather than on one's short-term-interests when the two conflict; and to avoid the whiff of desperation that, in organizations forced to operate from weakness, depresses morale and drives away current and prospective employees. And, for the reasons noted below, as difficult as conditions are now, law schools will never be in a stronger position than they are right now.

Some legal educators are in denial about this. They view current difficulties as temporary, stemming from the extended period of general weakness in the economy, and believe that as soon as the overall economy picks up – as it always has before, they will remind you – the days of milk and honey will return. We'll call this group the optimists, and they constitute a substantial albeit gradually diminishing portion of law school faculties. Other observers are more pessimistic, perhaps even to the point of believing that many or most legal educators had better get used to a long-term diet of bread and water for, as they see it, the only real solution is to reduce the supply of law school graduates. This implies a drawn out period of attrition, as the weakest schools disappear until the supply of lawyers is reduced to meet a permanently lowered demand. We can divide this group further into fatalists, who believe in a type of

[200] *See infra*, notes 201-232 and accompanying text.

Calvinistic predestination, with the U.S. News law school rankings roughly and perversely substituting for God's grace, and the non-fatalists, who believe in salvation by works, i.e., they believe that individual law schools can act to bring about their own everlasting life through innovation and reform that leapfrogs them past other law schools to a place of heavenly safety.

All these groups have in common the following. Each knows that well-publicized weaknesses in the job market for lawyers,[201] with the outlook especially bleak for new attorneys,[202] lessen the attractiveness of a legal education for prospective students,[203]

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[201] As Georgetown University Law Center's 2013 Report on the State of the Legal Market notes, "[a]s we enter 2013, the legal market continues in the fifth year of an unprecedented economic downturn that began in the third quarter of 2008." Georgetown Law, Center for the Study of the Legal Profession, *2013 Report on the State of the Legal Market*, http://www.law.georgetown.edu/continuing-legal-education/executive-education/upload/2013-report.pdf.

[202] Indeed, "it seems very likely that this is by far the worst job market for new lawyers in the history of the American legal profession." Bernie Burk, *ABA's Class of 2011 Employment Outcomes Data Show How Rough It Is Out There*, FACULTY LOUNGE (July 4, 2012), http://www.thefacultylounge.org/2012/07/abas-class-of-2011-employment-outcomes-data-show-how-rough-it-is-out-there.html. *See* Maura Dolan, *Law school graduates aren't finding much on the employment docket*, L.A. TIMES, Apr. 1, 2013, http://www.latimes.com/news/local/la-me-grads-20130402,0,1312864.story (quoting a California State Bar representative as noting that no prior legal jobs crisis "rival[s] the situation we have today"). *See also* Letter from The Coalition of Concerned Colleagues to the Am. Bar Ass'n Task Force on Legal Education, *The Economics of Legal Education: A Concern of Colleagues* (Mar. 2013) http://www.americanbar.org/content/dam/aba/administrative/professional_responsibility/taskforcecomments/032013_coalition_revcomment.authcheckdam.pdf ("[m]ore than two out of every five 2011 graduates did not obtain a full-time long-term job requiring a law degree"); Marc Hansen, *Barely Half of All 2012 Law Grads Have Long-term, Full-Time Legal Jobs, Data Shows*, ABA JOURNAL, Mar. 29, 2013, http://www.abajournal.com/news/article/barely_half_of_all_2012_law_grads_have_long-term_full_time_legal_jobs_data_/ (nine months after graduation, only 55 percent of graduates had jobs requiring J.D. degrees).

[203] Law school applications have dropped nearly forty percent in the last three years, with the trend accelerating year over year. In the most recent reporting period, law school applications are down nearly 21% over the year before, to less than 50,000 students. *See* Law School Admission Council, Three-Year ABA Volume Comparison, http://www.lsac.org/lsacresources/data/three-year-volume.asp; Ethan Bronner, *Law Schools' Applications Fall as Costs Rise and Jobs Are Cut*, N.Y. TIMES, Jan. 30, 2013 (reporting a 20 percent decrease over the previous year in law school applications as of January 2013). This is on top of a nearly 25 percent decline in applications over the previous two years. *See* David Segal, *For 2nd Year, a Sharp Drop in Law School Entrance Tests*, N.Y. TIMES, Mar. 19, 2012, at B1 (noting that the number of takers of the Law School Admission Test fell by nearly 25 percent between 2010 and 2012 with a drop of more than 16 percent during the 2011-12 academic year). The predicted enrollment of 50,000 for the start of the 2013-14 academic year will represent the smallest law school applicant pool in three decades. *See* Karen Sloan, *Avoiding Law School in Droves*, NAT'L L. J., Jan. 28, 2013 (reporting that "at no time during the past 30 years had the applicant totals slipped below 60,000").

and decrease donations from graduated ones. Each knows, as well, that tuition increases are restrained, and tuition discounting is encouraged, by the need to recruit new students in the face of a difficult job market.[204] Additionally, it is well understood by all that competitive pressures – this means the desire not to fall in the U.S. News rankings – can cause schools to voluntarily limit tuition income by reducing class sizes rather than accepting students with lower test scores and grades.[205] For all these reasons, there is less money to go around now – everyone knows it – and knows as well that the root of the problem can be traced to the dismal legal job market. But this is where agreement ends.

The optimists, as noted, believe that the legal field is suffering through a cyclical crisis. We believe this view is in error, and that the negative employment "trends of the past four years [now five] will continue into the foreseeable future" even if the larger economy improves.[206] That places us in the pessimistic category, but we do not fit neatly into either the fatalist or non-fatalist camp. A deeper look at the reasons why the job market for lawyers has deteriorated explains both why the optimists are wrong and why they and the fatalistic pessimists and even the non-fatalistic pessimists lack the sense of urgency required by the times.

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[204] *See* Karen Sloan, *Arizona Cuts Law School Tuition, Marking a First*, NAT'L L.J. (Apr. 4, 2013), http://www.law.com/jsp/nlj/PubArticleNLJ.jsp?id=1202594883355&slreturn=20130306033420 (noting a number of law schools "have frozen tuition or [made] limited increases, and many have increased scholarship offerings," all in an effort to attract students). Indeed, the University of Arizona James E. Rogers College of Law recently announced a n "11 percent tuition cut for in-state residents . . . and an 8 percent reduction for nonresidents" marking the first cut in law school tuition since applications began to decline in 2010. *Id*.

[205] Joe Palazzolo & Chelsea Phipps, *Law Schools Apply the Brakes,* WALL ST. J., Jun 11, 2012, at B1 (noting that at least ten law schools have planned reductions in class size, and that "[s]hrinking class size could help schools maintain their all-important U.S. news rankings even as the pool of applicants declines").

[206] Citi Private Bank & Hildebrandt Consulting, *2013 Client Advisory*, Jan. 2013, at 12.

The optimists are wrong to compare the current difficulties in the legal job market to past downturns because technology can now, for the first time, automate much work previously painstakingly performed by lawyers.[207] As Richard Susskind predicted in 2008, mass customization of legal services – the use of "processes and systems that meet individuals' particular needs with a level of efficiency akin to that of mass production" – allows a sharp reduction in legal costs.[208] Consider, for example, large-scale document review; it was conducted in the past by throwing armies of beginning associates at mountains of paper, with many documents reviewed by "three pairs of very expensive eyeballs."[209] Within the last two decades, however, it has gradually become routine for documents to be stored electronically, which has allowed potentially important documents to be flagged by a computer program rather than by a person, based on the presence of pre-established keywords. But technological change is unrelenting, hence, even keyword searching, the cost-saving technique that "currently dominate[s] the e-discovery process,"[210] itself appears vulnerable to new developments. Indeed, with the limitations of keyword searching becoming more well known,[211] experts predict that it will be overtaken by the technology-assisted review referred to as predictive coding, which uses a scalpel instead of an axe to cut out and separate responsive from unresponsive documents:

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[207] *See* John Markoff, *Armies of Expensive Lawyers Replaced by Cheaper Software*, N.Y. TIMES, Mar. 4, 2011, at B1, http://www.nytimes.com/2011/03/05/science/05legal.html?_r=2&hp

[208] SUSSKIND, *supra* note 4, at 52, 103.

[209] Patrick Oot, Anne Kershaw & Herbert L. Roitblat, *Mandating Reasonableness in a Reasonable Inquiry*, 87 DENV. U. L. REV. 533, 534 (2010).

[210] Adam Acosta, *Predictive Coding: The Beginning of a New E-Discovery Era*, 56 RES GESTAE 301, 301 (Oct. 2012).

[211] Jason R. Baron, *Law in the Age of Exabytes: Some Further Thoughts on 'Information Inflation' and Current Issues in E-Discovery Search*, 17 RICH. J.L. & TECH. 9, ¶ 11 (2011) (noting "a growing cottage industry of case law, commentaries and research, acknowledging the limitations of keyword searching," and citing numerous examples of each).

> [Predictive coding] utilizes computer pattern-matching algorithms to identify and index not just the keywords within documents, but their conceptual relationships as well. Conceptual indexing allows the index engine to recognize patterns in text and relate them to each other, so that it can draw an inference, for example, that the concept "cat" is related to the concept "feline." In this manner, documents can be compared not only for similarities in the exact word patterns used, but also in the meaning of the words.[212]

In this computer-guided process, a senior-level lawyer familiar with the case essentially teaches the computer how to think, by carefully reviewing a seed set of documents for "responsiveness, privilege, and any other tagging fields that the litigation may require. Once this 'seed set' of a few thousand documents has been coded,"[213] the computer begins its work of searching through the electronic files. Then, after "the engine has generated its predictions, random sampling of documents [by the attorney] is used to check the technology's accuracy."[214] The process is then repeated and, after a few checks of random samples and appropriate iterations to the computer algorithm based on the attorney's checks, the computer can be left to code the rest of the document corpus. This new form of mass customization of document review is substantially "cheaper for clients, less time consuming for attorneys, and typically more accurate than traditional manual review and keyword searches."[215] The promise of

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[212] Gary Weiner, *Technology-Assisted Review: What Is It and Why Should You Care?,* 50 THE HOUSTON LAWYER 24, 24, July/Aug 2012. *See* Baron, *supra* note 211, at ¶ 33 (describing predictive coding as a four-step process).

[213] Weiner, *supra* note 212, at 24.

[214] *Id*.

[215] Acosta, *supra* note 210, at 301 (noting that In a "recent survey of 11 predictive coding vendors, four reported an average cost reduction of 45 percent, while seven of the vendors reported savings as high as 70 percent."). *See* Baron, *supra* note 211, at ¶¶ 32**,** 33 (2011) (noting that predictive coding offers the "possibility for *greatly* increasing present rates of document review because [it] provide[s] the possibility to reduce the overall manual search burden on counsel, thereby dramatically reducing review costs," and citing studies demonstrating these points (emphasis in original)). *See also* Rick Schmitt, *Price and Perils of JD: Is Law School Worth It?*, WASH. MONTHLY, Mar. 2013, at 22, 25 ("Predictive-coding software is reducing the role of lawyers in the discovery process.").

predictive coding is so great that judges not only have authorized its use in cases,[216] but have done so even over the objection of one party[217] and, in at least one case, even in the absence of a request by any party.[218]

Technological advances also have enabled other developments that portend continuing weakness in the domestic legal services job market. For example, "pretty much all major corporations these days" are taking advantage of the internet's ability to obliterate distance and reduce costs by shifting, often to legal process outsourcing (LPO) companies in other countries, tasks formerly performed (more expensively) by entry-level associates.[219] As is typical of disruptive innovators, these LPO companies are now steadily "expanding [their] range of activities," becoming involved in increasingly sophisticated work.[220] The LPO industry, as recently as 15 years ago a mere dot on the legal services landscape,[221] is now enjoying constant and impressive

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[216] *E.g.*, *In re*: Actos (Pioglitazone) Prods. Liability Litigation, MDL No. 6:11-md-2299 (W.D. La., Jul. 27, 2012) (case management order).

[217] Da Silva Moore et al. v. Publicis Groupe SA and MSL Group, 11 Civ. 1279 (S.D.N.Y., Apr. 26, 2012) (affirming magistrate judge's discovery order allowing predictive coding); Global Aerospace, Inc. v. Landow Aviation, L.P., Consolidated Case No. CL61040 (Loudoun County, Va., Apr. 23, 2012) (order approving use of predictive coding for discovery).

[218] EHOB, Inc. et al. v. HOL Holdings, LLC, No. 7409-VCL (Del. Ch., Oct. 15, 2012).

[219] David McAfee, *More companies are outsourcing legal work*, DAILY JOURNAL, Mar. 30, 2012. *See* Jay Rivera, *Outsourcing Lawyers: Leaving is Here to Stay*, LEGAL MATCH L. BLOG (Sept. 3, 2010), http://lawblog.legalmatch.com/2010/09/03/outsourcing-lawyers-leaving-is-here-to-stay/. *See also* Courtney I. Schultz, *Legal Offshoring: A Cost-Benefit Analysis*, 35 J. CORP. L. 639, 646 (2010) (discussing advantages of LPO in India including a large, skilled workforce and comparably lower costs). Taking advantage of the internet and lower costs abroad, American corporations also have more directly outsourced legal work, by occasionally opening in-house legal departments outside the U.S. *See* Cynthia Cotts & Liane Kufchock, *U.S. firms outsource legal services to India*, N.Y. TIMES, Aug. 21, 2007, at __ (noting Dupont, Cisco Systems and Morgan Stanley have established in-house legal departments in India).

[220] Milton C. Regan, Jr. & Palmer T. Heenan, *Supply Chains and Porous Boundaries: The Disaggregation of Legal Services*, 78 FORDHAM L. REV. 2137, 2138, 2154 (2010) (noting that "[l]egal process outsourcing companies are becoming involved in an expanding range of activities" and are being asked to "take on more sophisticated and strategic work").

[221] See Ron Friedmann, *Law Firms Adopting Legal Process Outsourcing Methods*, Jan. 16, 2012, http://www.prismlegal.com/wordpress/?cat+5 (stating that "[l]egal process outsourcing (LPO) hit the news almost ten years ago"); *Career in LPO*, LPO INDIA, http://lpoin.com/career-in-lpo/ ("LPO emerged . . . in the year 2000/2001").

growth rates of approximately 30 percent, with 2012 revenues exceeding a billion dollars.[222] Further, with LPOs outside the U.S. charging one-tenth to one-third the hourly rate of western law firms,[223] the revenue lost by U.S. law firms to LPOs far exceeds the revenue gained by LPOs at the expense of American firms. Even more ominously for traditional law firms, (1) "an increasing number of General Counsel . . . are buying directly from Legal Outsourcing suppliers";[224] (2) even among current users of LPOs, only a small fraction of the work that might be outsourced currently is;[225] and (3) the vast majority of law firms have shown little ability to respond to the threat posed by LPOs.[226]

Moreover, although the most attention has been directed at the vulnerabilities of large law firms to changing conditions and new competitors[227] (such as The Practical Law Company and Axiom Global Inc. (Axiom), which focus on collaborations with corporate legal departments), other traditional providers of legal jobs are vulnerable as well to changes wrought by the internet. Legal Zoom, RocketLawyer and Legal Depot, for example, offer legal document creation services for clients who previously would

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[222] THE LPO PROGRAM, THE 2012 LEGAL OUTSOURCING MARKET GLOBAL STUDY, at Section 3 (Edward Brooks ed., 2012). Another sign of the trend toward legal outsourcing is the growth in the number of LPOs. *See* Heather Timmons, *Outsourcing to India Draws Western Lawyers*, N.Y. TIMES, Aug. 5, 2010, at B1 (noting "[t]he number of [LPOs] in India . . . mushroomed to more than 140 at the end of 2009, from 40 in 2005").

[223] Timmons, *supra* note 222, at B1.

[224] The LPO Program, *supra* note 222, at Section 3.

[225] *Id*. (stating existing users "have only outsourced about 5%" of all that could potentially be outsourced).

[226] *Id*. Indeed, it has been argued that law firms are inherently incapable of responding to the threat posed by the new technology-centric providers of legal services because partners operate on a different time horizon than associates, and do not want to underwrite extensive technology projects that might benefit the next generation at the firm but not benefit at least some significant portion of current partners. Monica Bay, *"Assassins" Aim to Reinvent Law*, LAW TECH. NEWS, Mar. 20, 2013, http://www.law.com/jsp/lawtechnologynews/PubArticleLTN.jsp?id=1202592651000&Assassins_Aim_to_Reinvent_Law.

[227] *See, e.g.,* Larry E. Ribstein, *The Death of Big Law,* 2010 WIS. L. REV. 749 (2010).

have sought to hire a small form or solo practitioner. Just Answer targets a similar lawyer demographic by providing answers to simple legal questions.

It is easy to see how these developments – and others as well[228]– weaken the case for a return to normalcy in the job market. But the pessimists – who do understand this – often fail to comprehend that the nature of these changes also weakens the argument that standing in place is an option for anyone (as per the fatalists) *and* the argument that one can win the race for survival merely by moving faster than the nearest competition (as per the non-fatalists). The very pace of developments in the legal services industry has made it difficult for traditional legal firms to keep up, but only the immediate lesson of these developments relates to the weakening of the traditional legal services job market. The larger lesson cries out to law school fatalists and non-fatalists alike to reconsider their views. *Beware* to the fatalist law professor resigned to law school closures, and to salary freezes and diminished sabbatical prospects, but who still believes that as a tenured professor at a top 100 law school her job is still reasonably secure – *beware* to the non-fatalist law school dean who calibrates the extent of his reform efforts to remain one step ahead of the law schools that the U.S. News deems his school's competition. Professor, dean, your calculations are incomplete. Big law firms did not calculate on Axiom bidding against them for work and winning even five years ago, and yet it is happening.[229] Small firms did not expect

[228] Some other developments that impact attorney employment but do not necessarily depend upon new technologies include "downsourcing" routine litigation or transaction tasks within the firm "from full-cost associates to low-cost staff, contract lawyers, or non-lawyer specialists . . . and 'insourcing' to in-house staff recurrent tasks that are commoditized or dependent on client-specific knowledge." Bernard A. Burk and David McGowan, *Big But Brittle: Economic Perspectives on the Future of the Law Firm in the New Economy*, 2011 COLUM. BUS. L. REV. 1, 5 (2011).

[229] *See* Drew Combs, *Disruptive Innovation*, THE AM. LAWYER, July/Aug. 2012 (noting that Axiom competed and won against law firms for business from Hewlett-Packard, and that Axiom also does legal work for Kraft Foods, Vodafone Group, and Hess Corp.).

Legal Zoom to threaten their business, and yet the company was used in an amazing 20 percent of filings for new limited liability companies in California in 2011.[230] Legal processing outsourcing companies that are less than a decade old, such as Pangea3, have helped to permanently alter hiring practices at century-old law firms 5,000 miles away.[231] And now one prominent attorney has created and is charging for an online, 84 class course on his specialty of e-discovery:[232] what should law schools make of that? Quite a lot, we think, *if* one has absorbed the right lessons from the experiences of legal employers.

In truth, the approaches of the fatalists content to hunker down and the non-fatalists determined to move one step ahead of the competition are each substantially flawed if you happen to be living in an era of new and significant competitive threats. The case of the bookseller Borders speaks to both approaches. Facing difficult economic times, Borders, beginning in 2001, essentially outsourced its online operations to online retailer Amazon.com for seven years, in an effort to save the costs of further developing its own online operations. In this sense, it hunkered down as the fatalists suggest. Borders' management focused instead on competing with traditional retailers, such as Barnes & Noble – in this sense it focused on beating its traditional competition, as the non-fatalists recommend. The Amazon agreement was later rightly considered to be "a crucial error" and "the moment when Borders lost control of its

[230] Barton, *supra* note 21, at __ (forthcoming).
[231] *See* Schmitt, *supra* note 215, at 29 (quoting a remark by the dean at Georgetown's law school that "even as the market comes back, big firms are not going to do the same amount of hiring as in the past").
[232] *See* http://www.e-discoveryteamtraining.com/ (the course, with certification, costs $1,000 as of April 21, 2013).

online destiny."[233] A fair comparison might be if Westlaw years ago decided to outsource its digitalization of legal research materials to LexisNexis, so that Westlaw could focus its energies on filling the shelves of legal libraries with new copies of *Corpus Juris Secundum*. The results were predictable: Borders filed for bankruptcy in 2011, with Borders President Mike Edwards admitting that Borders erred by "not investing in the online experience."[234] At the end, Borders -- which was profitable throughout the first half of its final decade -- was "just completely out of money, unable to afford to innovate."[235]

The story of Borders' decline and subsequent disappearance, as well as the loss of traditional law firm jobs, should stand as a cautionary tale for law schools. Law schools need to innovate to survive and, due to the trends noted in this section, they are more likely to be able to afford to do so now than ten years from now. "Make hay when the sun shines," say the farmers, and it is advice that law schools would do well to heed. A decade from now, times will be darker in the halls of the legal academy. We do not underestimate the difficulty of the managerial task,[236] but as Borders discovered, in a competitive era, hard decisions that have to be made do not get easier with the passage of time. Law schools that do not act today, when acting may be difficult, may well find -- as Borders did -- that action is impossible tomorrow. Under today's circumstances, acting with urgency to remodel one's school for the internet era is the only prudent

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[233] Nathan Bomey, *Borders Plans to Liquidate, Ending 40-Year-Old Bookstore Chain*, July 18, 2011, http://www.annarbor.com/business-review/borders-liquidation-chapter-11-ann-arbor-bookstore-chain-borders-group-e-books/.

[234] *Id*.

[235] *Id*.

[236] Indeed, managing through an era of great change is difficult under any circumstances, but when a significant portion of the workforce possesses academic tenure, the difficulty level is raised even more. Tenured faculty not only do not like to be pushed in uncomfortable directions, but the job protections they possess make some combination of overt subversion of and barely hidden passive resistance toward disfavored initiatives much more likely to occur than in cases where employment-at-will prevails.

course. It does not matter that the road ahead cannot be mapped out with complete accuracy. Many reasons to put off change can always be found, but given current trends, which are secular as well as cyclical, law schools will never be so well positioned for change as they are now. Strange as it may seem to members of the legal academy, onward through the fog – and fast – is the only realistic approach.

B. *Choosing the Right Path*

Onward through the fog – and fast? If ever a slogan seemed designed to inhibit change in organizations deeply inclined toward maintaining the status quo, that would be it. Some people are sure to interpret it as "let us rush headlong into disaster." But recall how we began this article – a horde of Amazon warriors approaches. No mistake is more certain to be fatal than to mistake a turbulent era for a period of stasis; there is no safety in stubborn adherence to the ways of the idyllic past when the landscape was warrior-free. Law schools need to move to remain a step ahead of the Amazons. And although it is impossible to describe with perfect clarity the ultimate destination, where safety will reside anew, enough is known about its location that traditional law schools *can* plot a path that not only will lead them in the right general direction, but also will put the wind at their backs. Below we discuss what to keep in mind as one chooses between specific alternative futures for the traditional law school.

1. <u>Choose a Path that Makes the Operation of Moore's Law Turn from Being a Threat to Being an Opportunity</u>

As discussed earlier,[237] in the last twenty years or so the basic strategy for conducting large-scale document review has evolved from simply "throwing bodies" at the problem to using keyword searches to cull the documents probably unresponsive to

[237] *See supra*, notes 207-218 and accompanying text.

a document request and then throwing bodies at the remainder. Now a second evolution is underway, in which an attorney works together with a computer to teach it to think beyond the coarse simplifications of a keyword search, in order to identify with greater precision and subtlety responsive documents. Each evolution has promised, and apparently can deliver, savings in money and time, with each successive evolution reducing the number of documents requiring review by human eyes. Indeed, the latest evolution promises review that, in comparison to older techniques, is faster and cheaper – and better, i.e., more accurate, besides.

These evolutions have been made possible largely through the development of software that takes advantage of the massive increases in micro-processing power that result through the operation of Moore's law,[238] as well as comparable technological advances in digital data storage.[239] Now imagine yourself as the general counsel of a large corporation, and that you need to hire a law firm to defend your company in a securities litigation. In such a case, it would not be uncommon for the plaintiffs' document requests to require the review of millions of pages of documents for possible production.[240] Is there any chance that you – who are likely under some pressure from your CEO to reduce litigation costs -- would ever hire a law firm that does things the old-fashioned way, by eyeballing every document?

The odds are slim that you would, but let's assume that, in a close call and based on other factors, you do hire the old-fashioned firm. Ten years later, a similar case arises. Moore's law predicts that, in that ten-year period, the number of transistors that

[238] For a discussion of Moore's law, see *supra*, note 184.
[239] For a discussion of advances in data storage, see *supra*, note 185.
[240] Indeed, the most document intensive cases can involve far more than mere "millions" of documents – one case, an admitted outlier, involved a "culling down [from] a universe of 350 billion pages." Baron, *supra* note 211, at ¶ 4 (discussing the Lehman Brothers bankruptcy case).

will fit on a microchip will have increased by over 3,000 percent.[241] Let's suppose that an increase of that magnitude has occurred here, as has happened in fact in every ten-year period since the 1960s. The firm that you rejected last time, having continued to see opportunity in technological change, notes that new predictive coding software, utilizing the latest advances in artificial intelligence and the increased microchip performance delivered by Moore's law, will allow it to conduct document review even less expensively than last time. Perhaps the cost savings will be an additional ten percent; the savings might be much higher as well. The important point is that over ten years there almost certainly will be some improvements, and occasionally the improvements will be dramatic.

Now the other firm, feeling increasingly threatened by technologies it only dimly understands, still relies on human beings to eyeball every single page of every single document. By what percentage do you suspect the human capacity to accurately review documents has increased over the ten years? Of course the answer is zero. That is because the old-fashioned firm improves not at the rapid pace sometimes enabled by the operation of Moore's law, but at the pace suggested by another law, known as the Baumol effect. That effect, also referred to as the "cost disease," explains why productivity in some industries increases faster than in others, and why productivity increases in some industries measure around zero percent. The classic example of the Baumol effect in operation involves a string quartet. As Cornell University Management School Professor Robert Frank has explained, "[w]hile productivity gains have made it possible to assemble cars with only a tiny fraction of the labor that was once required, it

[241] With a doubling of transistors occurring every two years, where there was once one transistor, there will be 32 ten years later.

still takes four musicians nine minutes to perform Beethoven's String Quartet No. 4 in C minor, just as it did in the 19th century."[242] At some point, whether you are a general counsel or not, when in the market for a particular service you will begin to choose the firm that benefits from Moore's law over the firm that suffers from the cost disease, assuming such a choice is available.

What other industry suffers from the cost disease and operates close to a 19th century level of productivity? Sections IV(A)(3) and (A)(4) of this article suggest one answer. There, we note how rapidly law school tuition has risen[243] and cite more than a dozen law professors[244] (and could have cited many more) all saying more or less the same thing: that, to quote an additional example, legal education "remains essentially unchanged from [the basic educational approach] that C.C. Langdell introduced at Harvard in the years following the Civil War."[245] Of course, as the educational practices have remained the same, so have the capacities of the human beings who deploy those practices in their classrooms and, hence, productivity levels have remained the same as well. Legal education has not paid a price for its failure to increase productivity because the good it has been selling has always been regarded as (1) economically valuable and (2) without a close substitute. The crisis in the legal jobs market already has caused a reassessment of the first factor; barring a dramatic change in legal education, online educators – utilizing every advantage the operation of Moore's law provides – eventually will cause a reassessment of the second.

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[242] WILLIAM G. BOWEN, HIGHER EDUCATION IN THE DIGITAL AGE 4 (2013) (internal quotation marks omitted).
[243] *See supra*, notes 187-192 and accompanying text.
[244] *See supra*, note 195.
[245] Rubin, *supra* note 66, at 610. For more proof of the basic proposition, one can watch episodes of *The Paper Chase* television series, now approximately four decades old. Even current law students will note that, from the perspective of productivity, their own classes do not represent an advance over what took place in Professor Kingsfield's classroom.

Perhaps you thought our hypothetical about the law firm determined to conduct document review the old-fashioned way was unrealistic – no law firm could survive taking such a position, and so no law firm would ever do it. We will agree, albeit with some caveats.[246] But the logic of this admission in all events demands a reciprocal concession; namely, given that a leveraging of Moore's law could enable schools to counteract the impact of the cost disease on legal education, law schools that value survival also must utilize the latest technologies to improve their productivity. It is unrealistic to expect anything else. To the extent traditional law schools seek to maintain the pedagogical status quo, they are living with a sword dangling over their heads, and with every microprocessor and software advance, the sword is lowered some more. On the current trajectory, this story will not end well.

Law schools can lessen the threat – can cause the dangling sword to be raised away from their heads – only if law school culture changes. Law schools will know that they are on the right path when law school faculties celebrate every successive fulfillment of Moore's law because of the new educational opportunities made possible by that advance. If such advances are irrelevant to the teaching that takes place in law schools, the operation of Moore's law again will become a threat, unless the teaching is

[246] We agree that, *in its particulars*, our hypothetical is unrealistic, but the general proposition that law firms always and everywhere will obviously choose to employ new technologies before they suffer irreversible decline is itself unrealistic. *See supra*, note 226 (suggesting different time horizons of partners and associates may incline firms toward technological obsolescence). To the contrary, disruptive technologies are almost always resisted by organizations that prospered using earlier technologies. *See generally* CHRISTENSEN, THE INNOVATOR'S DILEMMA, *supra* note 186, *passim* (discussing disruption theory). Our hypothetical of a law firm rejecting even keyword search for discovery is unrealistic not because firms do not reject useful technology, but because keyword search bore a striking resemblance to the Boolean searches lawyers were familiar with from using the Westlaw and Lexis computer research services, and thus could be adopted with minimal discomfort. *See* George L. Paul and Jason R. Baron, *Information Inflation: Can the Legal System Adapt?*, 13 RICH. J.L. & TECH. 10, ¶ 37 (2007), http://law.richmond.edu/jolt/v13i3/article10.pdf. ("[t]he legal profession has adopted keyword searching in light of its longtime familiarity with its use in connection with the offerings of the major online legal retrieval services").

of such a nature that it cannot effectively be replicated online. If the idea of law school faculties celebrating technological advances makes you laugh as if the notion were a ridiculous fantasy, you have identified a strong reason to invest in online law schools, for in what other profession would the thought of utilizing the latest technology be considered a laughable one? Would anyone desire to be treated by a doctor with a similar attitude? In all but the simplest case, would anyone want to go to trial with a lawyer who could not be bothered to learn how to employ the technologies useful to the trial arts? Would anyone go to a car mechanic who had no interest in the technological developments relevant to his field? The questions answer themselves. Legal education is no different. Recognizing that the pace of technological change is relentless and unprecedented, a law school on the right path takes technology seriously, and employs it wherever it can to better the overall value of the education it offers.

2. Choose a Path that Makes the Law School Building an Asset Rather than a Liability Against Internet Competition

Choosing a path that makes the law school building an asset rather than a liability against internet competition is an economic imperative. To the extent that circumstances remain as they are today, with the law school building used mainly for courses or classes that could in their essentials be delivered online, the building runs a substantial risk of becoming a white elephant, glorious to look at but ruinous to possess. If nothing changes, traditional law schools will no more be able to compete against online law schools that are not burdened with the costs of such buildings than Borders could compete with Amazon.

As noted previously, the solution is, first, to migrate online whatever content can effectively be delivered there; second, to make extensive use of the physical building to

deliver a premium educational experience that online providers cannot copy; and, third, to establish the premium experience as the new and regulated norm.[247] The enhanced experience to be offered within the walls of the law school can take many forms. In order that it truly constitute a premium experience, however, it must include a greatly expanded availability of clinical courses. Indeed, as Dean Erwin Chemerinsky has stated in recommending greater investment in clinical programs, "there is no way to reform legal education in any meaningful way without giving students far more experience in the practice of law."[248] Other forms of experiential education cannot adequately substitute for clinical training for, as Georgetown Professor Philip Schrag has noted, "[a]ll of the literature on experiential education notes that its highest and best form – in terms of preparing students to become lawyers and forcing them to think critically about the law in action – is clinical education."[249]

A recent study of predictors of successful lawyering provides a sound theoretical framework for understanding the singular importance of law school clinical training. Based on multi-year research, law professor Marjorie Shultz and psychologist Sheldon Zedeck developed a list of 26 effectiveness factors that serve as predictors of success as a lawyer.[250] In addition to practical lawyering skills such as legal analysis and reasoning, which are incorporated into the overwhelming majority of law school courses, the Shulltz-Zedeck study also lists as important effectiveness factors many skills that are essentially uncovered in traditional law school courses. The vast majority of these

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[247] *See supra*, note 25 and surrounding text; *supra*, Section IV(A)(3) (final paragraph).
[248] Chemerinsky, *supra* note 114, at 597.
[249] *See* Ann W. Parks, *Simulations, Apps – And Other New Ways to Learn*, GEORGETOWN LAW, Fall/Winter 2012, at 29, 30 (alumni magazine).
[250] Marjorie Shultz & Sheldon Zedeck, *Final Report - Identification, Development and Validation of Predictors for Successful Lawyering*, Sep. 2008, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1353554.

other skills, however, *will* be developed in most client-based clinical courses, and to an extent no other pedagogical form can match for its combination of breadth and depth. Questioning and interviewing, influencing and advocating, negotiation skills, stress management, seeing the world through the eyes of others, practical judgment, building relationships with clients,[251] passion and engagement: these are all listed in the Shultz-Zedeck study and all of them, along with several other listed skills,[252] can best be taught in the context of real cases in which students are dealing with real clients and real-world consequences.

Although "[t]here are many educational benefits that can be derived only through clinical experiences,"[253] other forms of experiential learning, e.g., simulations, role-plays, moot courts, trial competitions, and negotiation and counseling exercises, are valuable because of the cost advantages they possess over clinics and for their ability to provide a focused educational experience. Expanding their use in the law school curriculum certainly would improve the legal educational experience, and make good use of the law school's physical space.[254]

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[251] Building relationships with clients is not merely good business, but is essential to effective lawyering. *See* Gail A. Jaquish & James Ware, *Adopting an Educator Habit of Mind: Modifying What It Means to Think Like a Lawyer*, 45 STAN. L. REV. 1713, 1715 (1993).

[252] Shultz & Zedeck, *supra* note 250 (listing the skills noted above, and others including developing relationships within the legal profession, organizing and managing others, and community involvement and service).

[253] Chemerinsky, *supra* note 114, at 596.

[254] For example, Georgetown University Law Center has conducted a multi-day, national security "total immersion simulation" that utilizes large portions of the law school campus. Laura Donohue, *National Security Law Pedagogy and the Role of Simulations*, 6 J. NAT'L SCT'Y L. & POL'Y 489, 537-45 (2013). The Georgetown effort is a particularly striking example of how simulations can improve the law school educational experience, because it both fills in gaps found in traditional national security doctrinal courses, *see id*. at 546-47 (stating that simulations "allow for the maximum conveyance of required skills," while even the best doctrinal courses "fall short" in this regard), and concerns a topic that is, to say the least, not easy to cover in a clinical setting, *see id*. at 535 (noting that the necessity for security clearances and the possible difficulties in gaining access to clients present substantial obstacles for national security clinics). Other schools also have begun to use simulations more creatively and extensively. *See*, *e.g.*, Martin J. Katz, *Facilitating Better Law Teaching – Now*, 62 EMORY L. J. 823, 837-38 (2013) (noting innovative simulation courses at the University of Denver Sturm College of Law).

Finally, while many traditional subject matter courses should aim to transfer much of their content online, even here the law school building can be used to provide a superior legal education. Law professors Stephen Bainbridge and Steven Diamond, for example, each have recognized that online lectures may be utilized to provide basic knowledge of a subject, with old-fashioned class-time reserved for hands-on work that cannot be replicated online.[255] Should law schools utilize the law school building primarily for this purpose and for clinical and other forms of experiential learning pursuant to accreditation rules that require exactly that, they would do well by doing good, for they would be raising the quality of the legal education they provide while at the same time reforming legal education in a way that online providers could not duplicate.[256]

3. Choose a Path that Rewards and Refines Student Use of New Literacies Rather than a Path that Ignores and Laments Such Use

We begin with three stories. The first involves law librarians at Georgetown University Law Center and what the law librarians themselves have learned from seminars that they have conducted on cost-effective legal research. It is painful for two

[255] Stephen Bainbridge, *Law school classes: How big is too big?*, PROFESSORBAINBRIDGE.COM, Feb. 14, 2013, http://www.professorbainbridge.com/professorbainbridgecom/2013/02/law-school-classes-how-big-is-too-big.html (noting the possibility that students will watch videos online from the best lecturers on a subject "and then engage in more advanced hands-on work at the home institution"). Stephen F. Diamond, *Should Law Schools Go MOOC?*, Feb. 20, 2013, http://stephen-diamond.com/?p=4636 (noting that professors could assign online lectures and then, among other things, "creat[e] hands on modules that cannot be replicated by lectures" or "set up mock negotiations of business transactions that by their nature require hands-on/in the room teaching"). Law professor Glenn Reynolds has made a similar suggestion regarding undergraduate education. *See* GLENN HARLAN REYNOLDS, THE HIGHER EDUCATION BUBBLE, Section IV (2012) (suggesting that four-year institutions cover "basic information" online, and then have students apply that information "in person in smaller advanced classes"). *See also* Michele R. Pistone, *supra* note 25 (stating that both universities and law schools should provide as much material as possible online, while leaving room in the curriculum for an intensified in-person classroom experience).

[256] Let us hasten to note that in describing how to raise the quality of legal education, we do not mean to cast aspersions regarding the quality of the teaching that takes place currently in *individual* classrooms. The problem, rather, is with a system-wide uniformity that teaches a narrow set of skills and, as Albert Harno noted six decades ago, gives inadequate "consideration to the diminishing-returns factor." HARNO, *supra* note 27, at 139.

bibliophiles to relate this, but the message learned is: Good luck trying to get students to begin their research with a book. Comments like "[w]hy do I have to mess around with books when I can find everything I need on Google?" have led the librarians – even in a course dedicated to conducting low-cost legal research – to just "about give[] up on cajoling students to start with a secondary source" book.[257]

The second story, told by John Seely Brown, the former director of Xerox Corporation's legendary Palo Alto Research Center, describes an event that took place more than a decade ago, when Brown first met "a twenty-something who had actually wired a Web browser into his eyeglasses."[258] The story continues as follows:

> As he talked to me, he had his left hand in his pocket to cord in keystrokes to bring up my Web page and read about me, all the while carrying on with his part of the conversation! I was astonished that he could do all this in parallel and so unobtrusively.[259]

(With the development of Google Glass, of course, the type of encounter that startled even John Seely Brown in the early 2000s is about to become an uneventful if not common experience).

The third story is by the chess champion Garry Kasparov, and concerns "a 'free-style' chess tournament in which anyone could compete in teams with other players or computers."[260] Because "substantial prize money" was offered, "several groups of strong grandmasters working with several computers at the same time entered the

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[257] Anne Cassidy, *The Library's New Frame of Reference*, GEORGETOWN LAW, Fall/Winter 2012, at 40, 42 (alumni magazine).
[258] John Seely Brown, *Growing Up Digital: How the Web Changes Work, Education and How People Learn*, CHANGE, Mar./Apr. 2000, 10, 13, http://www.johnseelybrown.com/Growing_up_digital.pdf
[259] *Id*. at 13.
[260] Garry Kasparov, *The Chess Master and the Computer*, THE N.Y. REV. OF BOOKS, Feb. 11, 2010, http://www.nybooks.com/articles/archives/2010/feb/11/the-chess-master-and-the-computer/?pagination=false.

competition."[261] Although the results at first seemed predictable, a surprise eventually emerged:

> The surprise came at the conclusion of the event. The winner was revealed to be not a grandmaster with a state-of-the-art PC but a pair of amateur American chess players using three computers at the same time. Their skill at manipulating and 'coaching' their computers to look very deeply into positions effectively counteracted the superior chess understanding of their grandmaster opponents and the greater computational power of other participants. Weak human+machine+better process was superior to a strong computer alone and, more remarkably, superior to a strong human+machine+inferior process.[262]

There is a lesson in these stories and, as John Seely Brown's anecdote suggests, law students may understand it before their professors. Erik Brynjolfsson and Andrew MaAfee tell it in their book, *Race Against the Machine*: "In medicine, *law*, finance, retailing, manufacturing and even scientific discovery" – we might as well add chess here, too – "the key to winning the race is not to compete *against* machines, but to compete *with* machines."[263] Training students on how to use Lexis and Westlaw as a library substitute is only the start of this process. In a few years, law students will be hard-pressed to recall a time when they were not "able to access the information they need[ed] from anywhere and everywhere."[264] Law schools can create an artificial environment that limits such access,[265] but they must begin to question the appropriateness of such limitations in every context in which they are imposed.

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[261] *Id*.
[262] *Id*.
[263] ERIK BRYNJOLFSSON & ANDREW P. MCAFEE, RACE AGAINST THE MACHINE: HOW THE DIGITAL REVOLUTION IS ACCELERATING INNOVATION, DRIVING PRODUCTIVITY, AND IRREVERSIBLY TRANSFORMING EMPLOYMENT AND THE ECONOMY CH. 4, (e-book) (2011) (emphasis on *law* added; emphasis otherwise in original).
[264] *Learning in a Participatory Culture: A Conversation About New Media and Education (Part Four)*, Feb. 15, 2010 (interview of Pilar Lacasa by Henry Jenkins), http://civic.mit.edu/blog/henry/learning-in-a-participatory-culture-a-conversation-about-new-media-and-education-part-fou.
[265] Yes, this means that we are implying that the new "natural" environment is a connected one. If you can understand how someone could sensibly say that it felt "unnatural" to be outside without any clothes on, you will have gotten our point.

Conversely, they must begin to create environments in which students are expected to demonstrate a facility with technology under conditions that bear little resemblance to those found within the cloistered confines of the law library – perhaps in case meetings with clinical professors, or during time-pressured simulations, or even in the midst of a lecture.

For everyone, there is a great temptation to believe that the world as we found it in our earlier years is the way things must or at least should be. The authors of this article, being of a certain age and with one of them not even owning a smartphone, are certainly not immune to experiencing at least twinges of alternating feelings of alarm and dismissiveness when educational theorists assert that for "young people . . . mobile phones will become a new kind of knowledge prosthesis which expands the capacity of their memory, allowing them to mobilize information in new ways on the fly."[266] We understand, intellectually, that in this age being able to utilize new technologies is "a fundamental literacy," but wonder about the downsides when theorists laud "distributed cognition," i.e., the process of "off-loading parts of our thinking capacity onto a range of appliances."[267] And when we feel this way, as people of our generation often do, we turn to books for succor, let's say, for example, to Elizabeth Eisenstein's *The Printing Press as an Agent of Change, Volume I*.[268]

Of course we find the comfort we seek there. Eisenstein assures us that this has all happened before, the last time there was a twice-in-a-millennium change of comparable magnitude. Post-Gutenberg, the formerly "ubiquitous training in the *ars*

[266] *Learning in a Participatory Culture: A Conversation About New Media and Education (Part Four)*, *supra* note 264.
[267] *Id*.
[268] 1 EISENSTEIN, *supra* note 148.

memorandi" (the memory arts) faded "as "the role played by mnemonic aids was diminished."[269] Apparently people began to "off-load" onto books matters that previously had been memorized.[270] Scholarly focus diminished as well, as with the greater proliferation of books, "scholars were less apt to be engrossed by a single text and expend their energies in elaborating on it."[271] Instead, scholars began "a new era of intense cross referencing between one book and another,"[272] making footnotes and bibliographies akin to the hyper-links of today. Viewed from this perspective, the changing patterns of today actually represent a continuation of trends begun more than five hundred years ago, when Gutenberg invented his printing press and *extensive* reading first began its incursion upon *intensive* reading.

Law schools on the right path will act to broaden and deepen their students' use and understanding of technology in every context where such use and understanding is likely to prove helpful in the practice of law.[273] Student training that takes little or no note of technology that was not widely available in 1990 is deficient; there is no pride to be had in a law school turning out students "supremely well equipped to work in a world that no longer exists."[274] The future belongs to those who can work best with machines, not to those who can work best without them. Law schools must take to heart the tale

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[269] *Id*. at 66,189.
[270] Joshua Foer, *Remember This*, NATIONAL GEOGRAPHIC, Nov. 2007, http://ngm.nationalgeographic.com/print/2007/11/memory/foer-text (noting that the "profound shift" of "replac[ing] our internal memory with . . . external memory" began with books and now extends to the internet).
[271] 1 EISENSTEIN, *supra* note 148, at 72.
[272] *Id*. (internal quotation marks omitted).
[273] For many schools, this recommendation will require substantial change, as currently "law schools typically do little or nothing to make sure that their graduates are smart and capable users of all the myriad forms of technology that are available to help them be effective . . . attorneys." THOMSON, *supra* note 6, at 47.
[274] Sacks, *supra* note 142 (discussing how the internet has changed the skills necessary to succeed in the advertising industry (internal quotation marks omitted)).

told by Kasparov, and train students not merely in the law but in how to utilize *every* relevant form of technology to find better answers faster. The point is not the technologies themselves, but the enhanced lawyering capabilities the machines produce when they are effectively and efficiently combined with human legal knowledge.

4. Choose a Path that Allows the Law School to Take Maximum Advantage of Insights from the Emerging Field of the Learning Sciences

As a group, law school professors have exhibited an extreme reluctance to depart from or even to question the teaching style that they learned under as students.[275] This is unfortunate because, as Edward Rubin, the former dean of Vanderbilt Law School, recognized in 2007, the dominant law school educational model "is not only out of date, but . . . was out of date one hundred years ago."[276] In recent years, however, there is reason to hope that the strong force of pedagogical inertia has met its match in the (hopefully) stronger force of the emerging field of the learning sciences. "The learning sciences" is an umbrella term that has come into popularity because learning is a complex phenomenon that rewards consideration from a number of perspectives, hence, scientists and scholars with backgrounds in psychology, computer science, cognitive science, sociology and neuroscience, among others, all find a home in the field of the learning sciences. Work in this multidisciplinary and often interdisciplinary field has produced various robust findings that seriously challenge the traditional law school approach to education.

[275] *See* Rubin, *supra* note 66, at 611 (stating that the "educational approach [of law schools] has not been re-thought for a century").
[276] *Id*.

In our view, the most important and irrefutable insight that has yet emerged is the importance of the linked concepts of feedback and assessment.[277] Assessment takes one of two forms, summative or formative, depending upon the timing of the feedback offered. Summative assessment is provided at or after the end of a learning process, and is used mostly to measure performance and/or sort students in relation to others in the class. A course in which feedback is essentially limited to providing a student a grade on a final examination accomplishes these ends, yet that "entirely summative"[278] and not untypical law school practice[279] does not promote learning as effectively as the second type of assessment, formative assessment. Formative assessment is designed to give feedback to students (and also to professors) as learning is taking place. It happens simultaneously with the learning, so that students can assess their own understandings and review material that they do not fully understand.[280] Indeed, the most effective formative assessment is embedded into the learning process, giving

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[277] CARNEGIE REPORT, *supra* note 129, at 171 ("[S]tudies of how expertise develops across a variety of domains are unanimous in emphasizing the importance of feedback as the key means by which teachers and learners can improve performance"); Gerald F. Hess, *Heads and Hearts: The Teaching and Learning Environment in Law School*, 52 J. LEG. EDUC. 75, 106 (2002) (noting that "[t]he importance of formative feedback for student learning cannot be overestimated"). Incidentally, in her book on the printing press, Eisenstein notes that a society-wide "'process of feedback' . . . was one of the most important consequences of printed editions." II EISENSTEIN, *supra* note 148, at 479. Feedback changed the trajectory of the reliability of written works, from ever-downward "from a sequence of corrupted copies" to ever-upward from "a sequence of improved editions." I EISENSTEIN, *supra* note 148, at 111-12. We do not think that we stretch matters too far to note that without the mid-course corrections of error and the repeated reinforcement of correct understandings that are characteristic of the process of feedback, education too often becomes more the matter of "corruption and loss" that Eisenstein attributed to scribal culture than the matter of "correction, feedback, and progressive improvement" that Eisenstein stated became possible only in the print era. II EISENSTEIN, *supra* note 148, at 573.

[278] CARNEGIE REPORT, *supra* note 129, at 164.

[279] *Id.* at 164, 166 (noting that "the one-shot, high-stakes exam regime is still very much in evidence in most law schools" and, indeed, that "[t]he end-of-semester examination" still "holds a privileged, virtually iconic place in legal education" as the "most important and uniform practice of assessment used in law school").

[280] Hess, *supra* note 277, at 106 (adding that "[e]ffective formative feedback is specific, corrective, positive, and timely" and that it is most effective when "teachers clearly articulate the criteria for competent student performance").

students immediate feedback on established criterion so that they can adjust and revise their understandings based on the feedback.

The traditional law school curriculum, relying, as it does, predominately – indeed, nearly exclusively – on summative assessment, lacks the feedback that the learning sciences have identified as a touchstone of a sound pedagogical approach. As a consequence, many law students never develop an adequate understanding of whether they have mastered the relevant material until the course has ended, at which point they have little opportunity or inclination to identify and remedy their misunderstandings. Given the insights of the learning sciences, Dean Chemerinsky is entirely correct when he states that "a final examination at the end of the semester, where the student receives just a grade with no other feedback. . . is impossible to justify from a pedagogical perspective."[281] The lack of feedback is a particularly egregious flaw in light of the professional nature of legal education, in which the goal is to train and graduate competent lawyers, a task that requires *each* student to master the relevant material so that *each* is fit to enter the profession.[282]

A law school that is on the right path to building a higher quality legal educational program increasingly will favor methods of instruction that make extensive use of formative feedback and assessment. Such methods of instruction figure prominently in

[281] Chemerinsky, *supra* note 114, at 597. The former President of the American Bar Association, Talbot D'Alemberte, similarly criticized law school assessment practices when he asked, "Is there any education theorist who would endorse a program that has students take a class for a full semester or a full year and get a single examination at the end?" Talbot D'Alemberte, *Law School in the Nineties: Talbot D'Alemberte on Legal Education*, 76 AM. BAR ASS'N J. 52-53 (1990).

[282] The Carnegie Report recognized the importance of formative assessment to achieving this goal of professional legal education. *See* CARNEGIE REPORT, *supra* note 129, at 168 (noting that use of formative assessment is in line with a view that "the fundamental purpose of professional education is not sorting but producing as many individuals proficient in legal reasoning and competent practice as possible"; *id*. at 171 ("we believe that assessment should be understood as a coordinated set of formative practices that, by providing important information about the students' progress in learning to both students and faculty, can strengthen law schools' capacity to develop competent and responsible lawyers").

clinical courses and in other types of experiential learning. Traditional law schools also should begin to experiment with another type of formative feedback, a newer type, which (in its most practical application) is computer based and called adaptive learning. The basic principle behind adaptive learning is that the teaching adapts to fit the student, in reference both to her level of subject matter mastery and, in its more sophisticated applications, to her particular learning style.[283] As law schools begin to migrate educational content online, adaptive learning software allows the possibility that, after some initial feedback from a student, the content offered online can constantly be tailored for each student based upon that student's demonstrated level of understanding.[284] Another benefit is that, like the technologies that combine to make predictive coding possible, adaptive learning software also is certain to improve with the passage of time; thus, by deploying it, law schools can lessen the impact of the Baumol effect upon their future operations.

We close this section with a thought that reflects back upon matters discussed at the beginning of the article. Making more use of adaptive learning and other feedback methods, and striving to incorporate other insights from the learning sciences,[285] would

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[283] The learning sciences also investigate the topic of the different ways in which students learn. For a good general discussion of learning styles, see Robin Boyle and Ria Dunn, *Teaching Law Students Through Individual Learning Styles*, 62 ALB. L. REV. 213 (1998). The term learning style has generally been described as the way in which students perceive, absorb, and process new information. An awareness of the different learning styles is especially important for today's educators for, as John Seely Brown has noted, "with the Web, we suddenly have a medium that honors multiple forms of intelligence—abstract, textual, visual, musical, social, and kinesthetic. As educators, we now have a chance to construct a medium that enables all young people to become engaged in their ideal way of learning. The Web affords the match we need between a medium and how a particular person learns." John Seely Brown, *supra* note 258, at 10, 12.

[284] The process of using an automated learning system to create an individualized learning path based on an individual student's demonstrated cognitive abilities is called "cognitive scaffolding."

[285] Other important insights from the learning sciences that law school educators could take greater note of include findings on the importance of metacognition (which refers to a student's knowledge concerning his or her own cognitive processes, i.e., an understanding by each individual student about how he or she

represent a significant change for traditional law schools still wedded to the model pioneered by Langdell in 1870. And yet, one might rightfully question which approach is truer to the spirit of Langdell. Langdell regarded the law as a science, and greatly respected the methods and accomplishments of science in general. From that perspective, perhaps the path that best respects the Langdellian legacy is the one that most attempts to employ for the benefit of tomorrow's lawyers the clear findings of science today.

V. Conclusion

To graduates facing new challenges, Woody Allen once offered the following thought as the opening words in a (thankfully fictional) commencement address: "More than any other time in history, mankind faces a crossroads. One path leads to despair and utter hopelessness. The other, to total extinction. Let us pray that we have the wisdom to choose correctly."[286] In only a few years, law schools wedded to a narrow version of the status quo in legal education will begin to find that their reality has come to resemble the crossroads described in Allen's joke. But it does not have to be this way. Law schools cannot compete only on price, but they can drive down their costs through innovative use of online educational technologies. Law schools can improve the quality, quantity and scope of their practical training, and by so doing, better secure – and more justly secure -- the regulatory advantages that they currently enjoy. Substantial progress along these lines will allow existing law schools to prosper in the 21st century, just as Langdell-influenced schools prospered in the 20th century. We emphasize one last time, however, that time is running short, and that late movers will

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learns), and social learning (learning through observation or interaction with peers, colleagues and supervisors).

[286] Woody Allen, *My Speech to the Graduates* 79, 81, *in* SIDE EFFECTS (1981).

soon discover that their tardiness has sealed their fate. Many entities thought impregnable already have discovered the unforgiving consequences of being on the wrong side of technological change. Given that current technological changes enable or will soon enable the delivery of a minimally adequate legal education at substantially greater convenience and at a fraction of the cost, there is no reason to believe that law schools can long remain an exception to the technological imperative to adapt or die.