

*Robert H. Jerry II*  
University of Florida

## **DISRUPTIVE FORCES AT OUR DOORS: CHALLENGES FOR THE LEGAL PROFESSION AND LEGAL EDUCATION**

*The greatest risk we face in legal education is that we will do an excellent job preparing our students to practice in a world that does not exist anymore.*

Change is the normal state of all things; that everything changes over time is an observable fact. The *status quo*, whatever it is and whenever we measure it, will be disrupted by unexpected and uncontrollable events as well as events we can anticipate and sometimes shape, provided we alertly recognize and respond to the changes that precede and produce disruptive forces and events. In our pluralistic societies, it seems rare when a clear consensus on how to interpret and assess a changing environment exists; “[t]he optimist sees the rose and not its thorns; the pessimist stares at the thorns, oblivious of the rose”<sup>1</sup>, and invariably both sides have plenty of adherents. But when we encounter change, choices will have to be made, some will be right and some wrong, and there will be winners and losers. Our ancestors who perceived and interpreted the rustling in the brush as a tiger on the hunt fared better through those distant generations than those oblivious to the noise; those less alert suffered a lower survival rate and correspondingly had fewer opportunities to become our ancestors. The advances of our species show that we have had relative success in our choices through the millennia, and we have evolved to possess considerable skill in risk assessment and adaptation.

But our skills remain imperfect, and thus human history can be told as a story of the ups and downs in how we deal, and have dealt through the generations,

---

<sup>1</sup> This quote is widely attributed to Kahlil Gibran, but its origin is obscure. Yet illustrating that virtually no observation other than a precise statement of fact (e.g., “water freezes at zero degrees centigrade”) is beyond dispute, Dr. Donald MacCoon counters the “rose quote” with this thoughtful observation: “The wise see the whole rose and thus appreciate all aspects of its beauty without injury”. D. MacCoon, *A Reply to Kahlil Gibran’s Observation about Optimism and the Rose*, <http://oneplanetthrive.com/2013/05/a-reply-to-kahlil-gibrans-observation-about-optimism-and-the-rose>, May 23, 2013 (visited Dec. 16, 2014).

with change. Many lessons from the past remind us of what happens if we miss the signals warning us of increasing risk and thereby fail, unlike our more alert ancestors who chose to put some distance between themselves and the rustling in the brush, to make midstream corrections in our course. In this essay, my thesis, presented as both a member of the legal profession and a legal educator, is that disruptive forces are present at our doors, and they signal the need for change and adaptation. Failure to heed these signals will lead to irrelevance or failure; choosing and implementing wise responses to what they tell us will lead to survival and perhaps prosperity.

The story of change, response, and success or failure is a common one repeated throughout history. On the plus side, for thousands of years humans have confronted problems, needs, and wants and have discovered breakthrough innovations that literally changed the course of subsequent history<sup>2</sup>. On the other side, there are many examples of humans missing the signals of significant change in their environment, succumbing to the pressures associated with change, and consequently suffering loss. This is well understood by those who have been trampled by the disruptive forces of change, such as those who previously made their livings in the chemical film industry but missed the signals about digital photography and videography<sup>3</sup>, in the travel agency industry but missed the signals about web-based ticket distribution systems<sup>4</sup>, in the encyclopedia publishing industry but missed the signals about collaborative writing (with millions of contributors) and the implications of free distribution of the product around the world on the Web<sup>5</sup>, and in the slide rule industry but missed the signals about the impacts of electronic calculations and digitization. This last example is especially telling because it shows a disruptive force that quickly dismantled an industry that had been successful for four centuries.

The story of the rise and fall of the slide rule industry is a popular one for illustrating the impact of change and the consequences of failing to recognize it, so we will pause to look at it more closely. The narrative of the slide rule begins with John Napier, a sixteenth century Scottish landowner credited with the dis-

---

<sup>2</sup> See J. Fallows, *The 50 Greatest Breakthroughs Since the Wheel*, "The Atlantic", Nov. 2013, at <http://www.theatlantic.com/magazine/archive/2013/11/innovations-list/309536> (visited Dec. 17, 2014).

<sup>3</sup> See S. Gustin, *In Kodak Bankruptcy, Another Casualty of the Digital Revolution*, "Time", Jan. 20, 2012, at <http://business.time.com/2012/01/20/in-kodak-bankruptcy-another-casualty-of-the-digital-revolution> (visited Dec. 17, 2014).

<sup>4</sup> See E. Martin, *10 Popular Jobs That Are Quickly Disappearing*, "Business Insider", July 15, 2014, at <http://www.businessinsider.com/jobs-that-are-quickly-disappearing-2014-7?op=1> (visited Dec. 17, 2014).

<sup>5</sup> JVG, *Encyclopedia Britannica wiped out by Wikipedia, selling final print edition*, "VB News", Mar. 13, 2012, at <http://venturebeat.com/2012/03/13/encyclopaedia-britannica-wiped-out-by-wikipedia-selling-final-print-edition> (visited Dec. 17, 2014).

covery of logarithms<sup>6</sup>. These insights made possible the invention of the slide rule in the seventeenth century; this advance is credited to the Reverend William Oughtred, who placed two logarithmic scales side by side and slid them to see the relationships<sup>7</sup>. During the next four centuries, numerous enhancements of the slide rule occurred<sup>8</sup>, and tens of millions of the instruments were manufactured in the twentieth century<sup>9</sup>. The leading manufacturers in the United States were two New York companies, Keuffel & Esser Corporation, founded in 1867, and Dennert & Pape, a company the roots of which date back to 1862 and which started making slide rules in 1872, later under the trademark ARISTO. By 1978, the Dennert & Pape line no longer existed. Keuffel & Esser had such a booming business that it was able to go public in 1965, but by 1982 the firm declared Chapter 11 bankruptcy, ceased operations, and sold its trademarks to a company called AZON. As one summation of this history observes, “[t]he slide rule has a long and distinguished ancestry [...] from William Oughtred in 1622 to the Apollo missions to the moon[,] a span of three and a half centuries [...] it was used to perform design calculations for virtually all the major structures built on this earth during that long period of our history”<sup>10</sup>. Indeed, by the time slide rule manufacturing reached its peak in the mid-twentieth century, companies all over the world were making them. But in the 1960s the first solid state electronic calculator appeared on the scene, and the advent of the micro-processing chip in the 1970s made a pocket-size calculator with enormous power possible<sup>11</sup>. The ease of the calculators’ use and their accuracy essentially wiped out demand for slide rules. No matter how skilled the business leaders and craftsmen in the slide rule companies, no matter how innovative the manufacturing processes, no matter how refined the new slide rule designs, and no matter how efficient the distribution systems, the highly disruptive force of the new calculator technology completely destroyed the market for slide rules. Some slide rule manufacturers adapted their businesses and survived, but without any help from slide rules. Other manufacturers who did

---

<sup>6</sup> I. Johnston, *Scots genius who paved way for Newton’s discoveries*, “The Scotsman”, May 14, 2005, at <http://www.scotsman.com/news/sci-tech/scots-genius-who-paved-way-for-newton-s-discoveries-1-712196> (visited Nov. 25, 2014). Islamic scholars are also credited with producing logarithmic tables several centuries prior to Napier. See *Muhammad ibn Musa al-Khwarizmi*, [http://en.wikipedia.org/wiki/Mu%E1%B8%A5ammad\\_ibn\\_M%C5%ABs%C4%81\\_al-Khw%C4%81rizm%C4%AB](http://en.wikipedia.org/wiki/Mu%E1%B8%A5ammad_ibn_M%C5%ABs%C4%81_al-Khw%C4%81rizm%C4%AB) (visited Nov. 25, 2014).

<sup>7</sup> The Oughtred Society, *Slide Rule History*, <http://www.oughtred.org/history.shtml> (visited Nov. 25, 2014).

<sup>8</sup> *Ibidem*.

<sup>9</sup> *Slide Rules*, *The National Museum of American History (Smithsonian)*, <http://americanhistory.si.edu/collections/object-groups/slide-rules> (visited Nov. 25, 2014).

<sup>10</sup> The Oughtred Society, *Slide Rule...*, n. 8.

<sup>11</sup> P. Ament, *Hand Held Calculator*, Jan. 2005, at <http://www.ideafinder.com/history/inventions/handcalculator.htm> (visited Dec. 17, 2014).

not or could not adapt disappeared, even though they had been successful enterprises for in some cases over one hundred years.

Franziska Tschan, who has written extensively on the psychology of group performance in the workplace<sup>12</sup>, contributed to our understanding of organizational dynamics and innovation in her work with Joseph McGrath in the 2000s analyzing the elements of change cycles<sup>13</sup>. As they explain, an event has its impact and effect, and the “system” (which can be an individual or firm<sup>14</sup>) responds. The response will be either to do nothing or to change or adapt in some way. The alternative of change or adaptation can be understood as a confluence of multiple continuous variables. The first is *directedness*. Change may be evolutionary or “undirected”; in this pattern, variation, selection, and retention produce a new normal which persists until the next event-response cycle. Alternatively, change may be deliberate or “directed”; in this pattern, assessment, planning, choice, implementation, and self-regulation generate the new normal. The second is *size*. Change can be large or small, transformational or incremental. The event prompting change and the size of the response are not necessarily correlated; thus, a third variable is *proportion*. This reflects the reality that change is not dictated by the event that prompts it. A small, minor event might prompt transformational change; a large, major event might only result in a slight, incremental change. Moreover, the success of change has no necessary correlation to either size or proportion; thus, a fourth variable is *effectiveness*. Whether directed or undirected, large or small, or proportional or disproportionate, change can be either effective or ineffective, with consequences that are either large or small.

The alternative to changing or adapting in some way is to “do nothing”, which is, of course, a kind of response that can be assessed under the multiple continuous variables described above. As for *directedness*, inaction may be directed in the sense that doing nothing is the outcome of evaluation and weighing of alternatives and a conscious choice to hold still in the face of environmental changes being caused by one or more events. Alternatively, inaction may be undirected if it results from indifference or lack of awareness that environmental shifts are occurring – essentially obliviousness to change. By definition, the *size* of doing nothing is zero, but the *proportion* inaction bears to the event may be small or large depending on the nature of the environmental shifts surrounding the sys-

---

<sup>12</sup> See F. Tschan, professeure ordinaire, *Website, Université de Neuchâtel, Faculty of Science, Institute of Work and Organizational Psychology*, <http://www2.unine.ch/ipto/page-5563.html> (visited Dec. 20, 2014).

<sup>13</sup> See J. E. McGrath, F. Tschan, *Dynamics in Groups and Teams: Groups as Complex Action Systems*, (in:) M. S. Poole, A. H. Van de Ven (eds), *Handbook of Organizational Change and Innovation*, Oxford University Press, 2004, pp. 65–66.

<sup>14</sup> In this usage, “system” also includes ecological systems, political systems, etc., but for purposes of this discussion, “system” should be understood as individuals, firms, and the profession constituted by those individuals and firms.

tem. Finally, there is the matter of *effectiveness*: doing nothing may be a very effective response or it may be catastrophic.

Innovation, then, can be understood as one way a system (again, including an individual or firm) responds to change in conditions around it. When a system innovates, this can have consequences for other systems, essentially causing and delivering events that create a need for responses by other systems. On a massive scale, this construct describes the nature of our deeply interconnected global culture and economy, where the pace of change in many sectors is nearly beyond comprehension.

Like the slide rule industry, today many modern industries are being severely challenged by disruptive forces. To take just a few examples, E-delivery systems are disrupting traditional postal services, 3D printing is threatening small scale parts manufacturing, robots and smart machines are capably performing the tasks of receptionists and bank tellers, synthesized electronic music – even in the hands of amateurs – is replacing the services of professional musicians, digital wallets and mobile banking are challenging the check printing industry, and Web-based streaming services are preempting cable-delivered television. The list is virtually endless, and the scope of the disruptions in these examples and many more is close to total. Why anyone should think that the legal profession – and legal education, which rides on the same wave as the profession – is immune from the forces of change, innovation, and disruption that pervade our global economy is hard to comprehend.

Noted legal futurist Richard Susskind described the current situation in the legal profession in his 2013 book *Tomorrow's Lawyers*:

The legal market is in an unprecedented state of flux. Over the next two decades, the way in which lawyers will work will change radically. Entirely new ways of delivering legal services will emerge, new providers will enter the market, and the workings of our courts will be transformed. Unless they adapt, many traditional legal businesses will fail<sup>15</sup>.

The Georgetown Law Center for the Study of the Legal Profession's *2013 Report on the State of the Legal Market* struck a similar tone:

As we enter 2013, the legal market continues in the fifth year of an unprecedented economic downturn that began in the third quarter of 2008. At this point, it is becoming increasingly apparent that the market for legal services in the United States and throughout the world has changed in fundamental ways and that, even as we work our way out of the economic doldrums, the practice of law going forward is likely to be starkly different than in the pre-2008 period<sup>16</sup>.

---

<sup>15</sup> R. Susskind, *Tomorrow's Lawyers*, Oxford 2013, p. 3.

<sup>16</sup> Georgetown University Law Center, The Center for the Study of the Legal Profession, *2013 Report on the State of the Legal Market*, p. 1, [http://scholarship.law.georgetown.edu/cslp\\_papers/4/](http://scholarship.law.georgetown.edu/cslp_papers/4/) (visited Nov. 26, 2014).

Like Susskind, the *Report* with a high degree of urgency underscored the importance of directed change in response to the new landscape:

The challenge for lawyers and law firms is to understand the ways in which the legal market has shifted and to adjust their own strategies, expectations, and ways of working to conform to the new market realities. While there is certainly evidence that some firms and lawyers have begun to make these adjustments, many others seem to be in denial, believing (or perhaps hoping) that the world will go “back to normal” as soon as demand for legal services begins to grow again. [...] To an unfortunate extent, many lawyers and law firms seem stuck in old models – traditional ways of thinking about law firm economics and structure, legal work processes, talent management, and client relationships – that are no longer well suited to the market environment in which they compete. Perhaps it’s time for us [...] to force ourselves to think outside our traditional models and, however uncomfortable it might be, to imagine new and creative ways to deliver legal services more efficiently and built more sustainable models of law firm practice<sup>17</sup>.

When the forces of change disrupt the legal profession, those of us in legal education who are charged with the responsibility of educating students and preparing them for participation in the profession have no responsible choice but to take notice and adapt appropriately. If our students are unprepared to participate in the professional world into which they will enter, our investment in the development of their human capital will be wasted, and this will lead to future market corrections that will be highly disruptive for legal education.

Many of us who are professional legal educators find it uncomfortable to view our efforts as part of a market, and some of us resist market nomenclature when discussing where law schools now find themselves and the directions we are headed. Many of us prefer to be described as coaches of students embarked on missions of discovery, where our role is to teach students “to learn how to learn”, and where we guide them toward embracing lifelong commitments to the exploration of knowledge and to developing personal, durable commitments to civic, social, and cultural participation, articulating for themselves under our expert guidance the elements of “the good life”, identifying the kinds of work meaningful in such a life, and imagining possibilities and having personal transformational intellectual experiences, all in the grandest tradition of liberal education.

Despite the appeal of thinking of our roles in these ways, the fact is that for the vast preponderance of consumers of legal education in the United States, the objective is to acquire by the conclusion of the course of study the skills, knowledge, and competencies needed to join the legal profession immediately and to participate in it successfully and nearly totally. This is where we encounter the nub of the problem: potential degree-seeking students are telling us they lack confidence that legal education can deliver this product for a realistic price and with

---

<sup>17</sup> *Ibidem*.

sufficient probability that meaningful employment will be available at the end of the academic program. In other words, demand for the output of our production is down, our production greatly exceeds available jobs for our graduates (*i.e.* we have excess capacity), and structural constraints make timely adaptation to this changed environment extremely difficult.

Statistics bear out this state of things. Between 2007 and 2012, the legal services industry in the U.S. shed 56,000 jobs, a number equivalent to a five percent of all jobs in the sector<sup>18</sup>. By 2014, the legal services industry had restored 17,000 of these jobs, but the number of total jobs in the industry remain far below the totals of previous years<sup>19</sup>. These numbers are not dissimilar to the trends in other industries in the United States economy during the same period, but this is simply another way of saying that new normals are being experienced everywhere and the legal profession is not exempt from these market forces. The U.S. Bureau of Labor Statistics projections for future job openings through 2022 do not show a dramatic improvement in employment prospects either. From 2012 to 2022, new job openings for lawyers, judges, and related workers (not including legal support positions), including those created by retirements and attrition, are predicted to be 208,800, or an average of 20,800 per year<sup>20</sup>.

Unfortunately, the supply of new law graduates significantly exceeds this number and will do so for the foreseeable future. In 2012–2013, U.S. law schools awarded 46,478 J.D. degrees, the highest number ever; this is the culmination of a generally steady upward trend dating to 2001–2002 when nearly 40,000 J.D. degrees were awarded.<sup>21</sup> Comparing the number of J.D. degrees awarded with the number of new lawyer jobs available explains why placement rates for law school graduates have been declining over time. In the 2002–2003 academic year, 73.7% of law graduates obtained a job for which bar passage was required within nine months of graduation,<sup>22</sup> but in 2012–2013 only 64.4% did so; further, in the 2012–2013 class, 4.7% of the graduates obtaining a job for which bar passage was required were placed in part-time jobs<sup>23</sup>, meaning that fewer than 60%

---

<sup>18</sup> Bureau of Labor Statistics, *Databases, Tables and Calculators by Subjects*, <http://data.bls.gov/pdq/SurveyOutputServlet> (calculation run Dec. 18, 2014).

<sup>19</sup> *Ibidem*.

<sup>20</sup> U.S. Dep't of Labor, Bureau of Labor Statistics, *Employment Projections: Employment by detailed occupation*, last modified, Dec. 19, 2013, at [http://www.bls.gov/emp/ep\\_table\\_102.htm](http://www.bls.gov/emp/ep_table_102.htm) (visited Nov. 26, 2014).

<sup>21</sup> American Bar Association Section on Legal Education and the Bar, *Enrollment and Degrees Awarded 1963–2012 Academic Years*, [http://www.americanbar.org/content/dam/aba/administrative/legal\\_education\\_and\\_admissions\\_to\\_the\\_bar/statistics/enrollment\\_degrees\\_awarded\\_authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/administrative/legal_education_and_admissions_to_the_bar/statistics/enrollment_degrees_awarded_authcheckdam.pdf) (visited Dec. 18, 2014).

<sup>22</sup> National Association for Law Placement, *Employment for New Law Graduates is Nearly Steady*, July 1, 2004, at <http://www.nalp.org/2004employmentfornewlaw> (visited Dec. 18, 2014).

<sup>23</sup> National Association for Law Placement, *Class of 2013 National Summary Report*, at <http://www.nalp.org/uploads/NatlSummaryChartClassof2013.pdf> (visited Dec. 18, 2014).

of that year's law school graduates had a full-time job for which a law degree was required within nine months following graduation. This is not a sustainable state of things, and thus it is not surprising that applications to United States law schools dropped dramatically during this same period. In the fall of 2004, 98,700 persons sought admission to United States law schools, but in the fall of 2013, only 54,500 did so<sup>24</sup>, a decline of 45%. As of the fall of 2014, it is not clear that the bottom has yet been reached; LSAT administrations have declined nearly 40% since 2009–2010, including declines of 13.4% in 2012–2013 and 6.2% in 2013–2014<sup>25</sup>. As we approach a juncture where some law schools are likely to need to admit all of their applicants in order to have sufficient revenue to sustain themselves as on-going operations, it is reasonable to suggest that United States legal education is approaching a tipping point where a dramatically different new normal awaits on the other side.

Why is this happening? What are the disruptive forces knocking at our doors? There are several, but three have especially significant impacts. One is the collective impact of the new technologies that are changing how law is practiced. Two commentators summarize it this way:

We are now in a technology era in which computers are able to do most of what lawyers could do 15 years ago, and do it better, faster, and cheaper[.] And given that these technological capabilities, which were once only a pipedream, are now a commercial reality, clients have become exceedingly willing to switch from traditional legal service providers to alternative technology-focused providers<sup>26</sup>.

Illustrations of these new technologies are many, but one of the most popular is how legal precedents in the United States are checked for accuracy and currency. Forty years ago lawyers checked citations by using the Shepard's system, but it was a far different one than the Shepard's system used today<sup>27</sup>. In the 1970s, one citechecked a case by locating the appropriate volume in a series of Shepard's hardbound books, finding the page in the volume on which the decision in question was reported, and then scanning columns to find the page number on which the decision's citation history began. At this point in the text was a list of cita-

<sup>24</sup> Law School Admissions Council, *End of Year Summary: ABA Applicants, Applications, Admissions, Enrollment, LSATS, CAS*, at <http://www.lsac.org/lsacresources/data/lsac-volume-summary> (visited Dec. 18, 2014). A report with the 2003 and 2004 years is on file with the author.

<sup>25</sup> *Ibidem*.

<sup>26</sup> A. Daws, K. M. Brown, *Sketching the Future – Axiom, Valorem, Riverview, LegalZoom: Is this the New Model?*, "Practice Innovations", Oct. 2014, at <http://info.legalsolutions.thomsonreuters.com/signup/newsletters/practice-innovations/2014-oct/article1.aspx> (visited Dec. 18, 2014). See also K. M. Brown, *Enter the Disrupters: How New Law Firm Rivals are Disrupting the Market for High-end Legal Services in the U.S.*, Wharton School of the U. of Pa., William and Phyllis Mack Institute of Innovation Management, May 14, 2014, at [https://mackinstitute.wharton.upenn.edu/wp-content/uploads/2014/10/Brown\\_Enter-the-Disrupters-V2.pdf](https://mackinstitute.wharton.upenn.edu/wp-content/uploads/2014/10/Brown_Enter-the-Disrupters-V2.pdf) (visited Dec. 18, 2014).

<sup>27</sup> The link to the modern system's explanation is <http://www.lexisnexis.com/en-us/products/shepards.page> (visited Dec. 18, 2014).



tions, some of which would be accompanied by a code indicating the subsequent history or treatment of a decision. This process was then repeated in additional volumes and paperback releases which updated the initial Shepard's volume. The entire process was then repeated for each citation in the brief or memorandum being checked. If a code causing concern were found, one would then need to go to a different part of the library and retrieve the case with the subsequent history or treatment, and then review it to make an independent assessment of whether this more recent case is problematic for the use of the originally cited case. This process would take many hours to complete – and clients did not question paying lawyers (usually the newer ones did the citechecking) for the hours required to ensure the accuracy of briefs and memoranda. Today, this process is very different. A computer, upon receiving an instruction that takes only a few seconds to compose and deliver, can citecheck every citation in a brief or memorandum in a nanosecond, and then provide links in an instantaneously produced report that will take the lawyer immediately to the full text of any case in which the authority is cited. All of this happens with greater accuracy than was possible under the original Shepard's citechecking system. The new methodology is, despite the overhead cost of computers and licensing fees for the use of Shepard's, both faster and cheaper, and no client would knowingly or willingly pay their lawyers to do citation checking under the old system.

The evolution of Shepard's is just one example of a new time-saving, efficiency-enhancing, cost-reducing technology. The more important point is that for virtually every aspect of the practice of law, a similar technology exists that is having a similar impact. These include, for example, document assembly software for legal documents of all kinds (ranging from corporate to pleading to contracts and leases to will and trusts, and more), word processing software for drafting and editing documents, email and cell phones for rapid communications with clients and other lawyers, e-filing systems for court documents, and databases and software for the storage and retrieval of research and knowledge. The key point is this: the new technology does not eliminate the need for lawyers, but fewer lawyers can do the same amount of work in less time than before, and this means fewer jobs are available for new lawyers.

Beyond the foregoing technologies, other new technologies exist that do hope to replace lawyer services as we now know them. At [www.shakelaw.com](http://www.shakelaw.com)<sup>28</sup> one can access a free application called "Shake", download it to an iOS or Android device, and, as the home page advertises, "create, sign and send legally binding agreements in seconds". For a limited but growing set of agreements covering employment, confidentiality, buy/sell, rent/lend, and credit/debtor, and now more specialized agreements (e.g. roommates, skilled labor, video production, etc.), it is possible to create simple, functionally adequate contracts for a very large number

---

<sup>28</sup> Visited Dec. 15, 2014.

of a situations. The new technology has important limitations, most notably that a lay person will not know when he or she needs something more complex than what Shake provides. But as technology advances, the ability of computers to evaluate facts, circumstances, and options and make recommendations tailored to the individual and jurisdiction will only increase, and the range in which the computer application is deficient will decline. Now that many of us carry in our pockets and briefcases voice recognition software connected to large databases that can answer many questions instantly and accurately, and being aware that a computer named Watson has already used voice recognition, extensive databases, and raw processing power to trounce two of the best Jeopardy players of all time in a fair human-versus-machine contest where no questions were off limits, it is increasingly difficult to argue that computers of the future will be unable to dispense legal advice for many routine matters as quickly, cheaply, and accurately as human lawyers. Skeptics should be reminded that only twenty years ago, no one had even imagined half the new technologies being discussed in this paragraph, and innovation is not slowing.

A second disruptive force involves the application of project management concepts to the control and management of cases, transactions, and other legal matters. Bringing this expertise to bear on costs, human resource management, communications, procurement, quality controls, time management, and other elements of the process of accomplishing a legal task generates efficiencies and therefore savings in how work is performed, which in turn translates into a competitive advantage in the marketplace for those who utilize these concepts<sup>29</sup>. Bringing project management principles to bear on lawyer work also improves the lawyer's ability to identify parts of a project that can be disaggregated and outsourced to other parties with the ability to perform those portions of the work more efficiently and cheaply. These might be other law firms with niche expertise, but they also may be firms or providers that specialize in particular parts of the transaction or litigation process, such as deposition digesting, document assembly, e-discovery management, and other tasks. Again, as efficiencies increase because of improved project management, the need for lawyers does not disappear, but the number of lawyers needed to do a particular job or set of jobs declines, which means fewer jobs are available for new lawyers.

A third disruptive force involves the emergence of non-lawyer professionals who perform tasks traditionally thought to be within the province only of lawyers. The model of one-law-license-fitting-all in the United States is eroding, and what

---

<sup>29</sup> See Project Management Institute, *What is Project Management?*, <http://www.pmi.org/About-Us/About-Us-What-is-Project-Management.aspx> (visited Dec. 15, 2014); A. Cohen, *The Eureka Moment: How six Big Law firms stopped dithering and learned to love legal project management*, "Law Technology News", Aug. 2012, at [http://www.dechert.com/files/Publication/af29e9e2-9a51-40cd-90cd-93b57556ed4f/Presentation/PublicationAttachment/9ac35b4c-0fb3-4199-bc3f-c909d97a6227/Eureka\\_Moment\\_LTN\\_0812.pdf](http://www.dechert.com/files/Publication/af29e9e2-9a51-40cd-90cd-93b57556ed4f/Presentation/PublicationAttachment/9ac35b4c-0fb3-4199-bc3f-c909d97a6227/Eureka_Moment_LTN_0812.pdf) (visited Dec. 15, 2014).

has arrived on the scene is the concept of a limited-license non-lawyer who has authority to advise and assist clients in specific areas of law. Leading the way in this movement is the Washington State Supreme Court, which created in 2012 a Limited License Legal Technician (LLLT) Board and authorized it to establish and administer regulations for professional conduct, exam procedures, continuing education requirements, and disciplinary procedures for limited license legal practitioners<sup>30</sup>. This takes a page out of the medical profession's book, where nurse practitioners, who are essentially registered nurses with advanced education and clinical training, are authorized to administer physical exams, diagnose and treat many common acute and chronic illnesses, prescribe and interpret lab results and X-rays, prescribe and manage medications, and otherwise provide individualized care for patients. Although the practice authorizations vary from state to state, the nurse-practitioner concept has existed for nearly a half-century and is now recognized in all fifty states<sup>31</sup>. The LLLT in the legal profession, like the nurse-practitioner in the medical profession, has the potential to replace significant amounts of lawyer work with services provided by non-lawyers.

The first steps down this path were taken in March 2013 when the Washington State Supreme Court approved the LLLT Board's recommendation that family law become a practice area in which LLLTs are licensed, with licensing expected to begin in 2015. Under the rule which authorized LLLTs, "[i]f the issue is within the defined practice area, the LLLT may undertake" to gather facts, explain their relevance to the client, inform the client about procedures for preparing and filing documents and serving process, provide the client with "self-help materials prepared by a Washington lawyer or approved by the Board", select and prepare certain forms for the client, preform legal research and draft letters and pleadings if the work is reviewed and approved by a Washington lawyer, and provide other kinds of client assistance<sup>32</sup>. Similar rules are being evaluated in California<sup>33</sup>, Oregon<sup>34</sup>, Georgia, and New York<sup>35</sup>.

---

<sup>30</sup> See *Limited License Legal Technician Board*, "Washington State Bar Association", <http://www.wsba.org/Legal-Community/Committees-Boards-and-Other-Groups/Limited-License-Legal-Technician-Board> (visited Dec. 15, 2014).

<sup>31</sup> Mayo School of Health Sciences, *Nurse Practitioner*, <http://www.mayo.edu/mshs/careers/nurse-practitioner> (visited Dec. 15, 2014).

<sup>32</sup> *Rule 28*, Limited Practice Rule for Limited License Legal Technicians, <http://www.wsba.org/~media/Files/WSBA-wide%20Documents/LLLT/Rules%20and%20Regulations/20130820%20APR%2028.ashx> (visited Dec. 15, 2014).

<sup>33</sup> T. Gordon, *California Considering Licensing Non-Lawyer Legal Services*, June 14, 2013, <http://www.responsivelaw.org/index.php/blog/item/25-california-considering-licensing-non-lawyer-legal-services> (visited Dec. 15, 2014).

<sup>34</sup> Oregon State Bar, *Task Force on Limited License Legal Technicians*, <http://bog11.homestead.com/LegalTechTF/meetings.pdf> (visited Dec. 15, 2014).

<sup>35</sup> M. Tarlton, *The LLLT and the Power of Positive Thinking*, Oct. 1, 2013, <http://www.attorneyatwork.com/lllt-and-the-power-of-positive-thinking> (visited Dec. 15, 2014).

In short, these disruptive forces (and some others) are having enormous impact on the practice of law and are producing great change in the legal profession. That being the case, what adaptations to this new environment should legal education make?

First, law schools need to evaluate what they charge students to receive a legal education. Since the mid-1980s, average tuition in inflation-adjusted dollars has risen dramatically at both public and private law schools in the United States. In 1994, average tuition and fees for residents at United States public law schools was \$5,016; by 2004, this had more than doubled to \$11,860. By 2012, this number again had more than doubled to \$23,214. The same has been true for private law school tuition. In 1994, average tuition and fees at United States private law schools was \$10,667; by 2004 this had more than doubled to \$21,905. By 2012, it did not quite double again, but it nearly did so, rising to \$36,202<sup>36</sup>. Exactly what an average law student pays is impossible to know without data on the extent to which these numbers are discounted through financial aid programs and tuition forgiveness, but there can be no doubt but that the average has increased significantly even when discounts are taken into account. Average student debt loads attributable to borrowing to pay law school tuition have increased significantly during this period, and this would not occur if increased discount rates had offset the rise in tuition prices. In 2001–2002, average law school debt was approximately \$46,500 for public law school graduates and about \$70,000 for private law school graduates. By 2012, this had increased to \$75,000 for public law school graduates and \$125,000 for private law school graduates<sup>37</sup>.

At the same time tuitions and debt loads have increased, reported median salaries for full-time jobs obtained by law school graduates have stagnated. This has been the case since 1985, with the exception that private practice salaries showed unusual growth from 1998 through 2001, then lost about half of that increase during the next four years, but followed that with a steep increase lasting until 2009 that took private practice salaries to a level close to twice the historic norms, which in turn was followed by a collapse during the Great Recession that returned the median to the general range that prevailed between 1985 and 1998<sup>38</sup>. Given rising tuition, increasing debt loads, and stagnant starting salaries, basic

---

<sup>36</sup> American Bar Association Section of Legal Education and Admissions to the Bar, *Law School Tuition, 1985–2012*, at [http://www.americanbar.org/content/dam/aba/administrative/legal\\_education\\_and\\_admissions\\_to\\_the\\_bar/statistics/l\\_s\\_tuition.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/administrative/legal_education_and_admissions_to_the_bar/statistics/l_s_tuition.authcheckdam.pdf) (visited Dec. 18, 2014).

<sup>37</sup> D. Weiss, *Average Debt of Private Law School Grads is \$125K; It's Highest at These Five Schools*, "ABA Journal Blog", Mar. 28, 2012, at [http://www.abajournal.com/news/article/average\\_debt\\_load\\_of\\_private\\_law\\_grads\\_is\\_125k\\_these\\_five\\_schools\\_lead\\_to\\_m/](http://www.abajournal.com/news/article/average_debt_load_of_private_law_grads_is_125k_these_five_schools_lead_to_m/) (visited Dec. 18, 2014).

<sup>38</sup> National Association for Law Placement, *Trends in Median Reported Salaries-Class of 2012*, Jan. 2013, at [http://www.nalp.org/trends\\_in\\_median\\_reported\\_salaries\\_class\\_of\\_2012](http://www.nalp.org/trends_in_median_reported_salaries_class_of_2012) (visited Dec. 18, 2014).

economic principles predict a negative impact on demand for a legal education. This is what has occurred, as demonstrated by the plunging number of students taking the LSAT and the steep decline in law school applications, as noted earlier. Yet perhaps an even more telling statistic is the decline in undergraduates' interest in pursuing a legal education post-baccalaureate degree as revealed by the percentage law school applicants bear to recipients of baccalaureate degrees. From 1991 to 2013, the number of law school applicants as a percentage of that year's baccalaureate degrees declined almost steadily from nine percent to three percent<sup>39</sup>, which is a staggering decline. This belies the belief that declining interest in the legal profession is a product of the Great Recession; the lack of interest in the profession dates back at least two decades.

With disruptive forces of this magnitude, one would expect legal education to respond, and it has. The unsustainable rate of increase in law school tuition has declined, and some schools have frozen or reduced tuitions<sup>40</sup>. This decline may be larger than tuition numbers themselves reveal if discount rates are increasing, as anecdotal information suggests. But even these significant changes have not stopped the decline in applications, which is continuing its downward drift in the 2014–2015 cycle. As of December 12, 2014, a date that marks the completion of about one-third of the annual law school admissions cycle in the United States, the number of applicants is down 9.1% from the prior year and applications are down 10.5%<sup>41</sup>. At some point a market correction is inevitable and the number of applications will stabilize, but how far in the future this moment awaits us remains unknown. Just as the legal profession will not return to the “old normal” that predated the current pattern of changes, it is almost impossible to conceive a scenario under which applications will return to the lofty numbers of the late 1990s and early 2000s, at least not until the retirements of the baby boomer generation cause what is likely to be the greatest transformation in the history of United States labor markets, something that we should expect to be in full swing in the 2030s. Given these market realities, the prices charged by law schools for a legal education cannot be based on “business as usual” considerations.

Second, law schools need to evaluate their enrollment targets. This is also presently occurring; in addition to changes in tuition management strategies, enrollment management strategies are being revised in law schools throughout the United States. In the fall of 2013, first-year enrollment in United States law schools dropped to 40,802<sup>42</sup>. Despite this significant decline, the fall 2013 enter-

---

<sup>39</sup> D. Jones Merritt, *The Twenty Year Drop*, Feb. 3, 2013, at <http://insidethelawschoolscam.blogspot.com/2013/02/the-twenty-year-drop.html> (visited Dec. 18, 2014).

<sup>40</sup> J. Vassallo, *Law Schools Slowly Reducing Tuition*, “JD Journal”, Jan. 16, 2014, <http://www.jdjournal.com/2014/01/16/law-schools-slowly-reducing-tuition> (visited Dec. 18, 2014).

<sup>41</sup> Law School Admission Council, *Data: Three-Year Volume Graphs*, <http://www.lsac.org/lisacresources/data/three-year-volume> (visited Dec. 18, 2014).

<sup>42</sup> American Bar Association Data, *Law School Takeoffs*, March 24, 2014.

ing class will graduate in 2016 and the number of new lawyer jobs, as discussed earlier, is expected at that time to remain close to half the number of anticipated 2016 graduates, which means placement will continue to be very difficult for new graduates in 2016 and ensuing years. As law school enrollments are reduced in response to declining applications and the deflated employment market for new graduates, law schools will need to adjust to the new budget normals that result when revenues are reduced. Declining budgets will translate into smaller faculties, increased use of faculty sharing among law schools through distance education and other means, and increasingly entrepreneurial behaviors as law schools search for new revenue streams, such as those which might exist in continuing education offerings, new graduate degree programs at both the post-J.D. and pre-J.D. masters levels, undergraduate course offerings in the style of “law and [something]”, and executive education for non-lawyers. As these alternative programs are created, consideration will be given to whether portions of this coursework should be allowed to count toward a degree; at present, cumulative counting of credits is not allowed by American Bar Association accreditation standards for the first professional law degree<sup>43</sup>, but pressure for change will intensify as law schools struggle to balance their budgets.

Third, law schools will continue to innovate with programs that reduce the total cost of a legal education and the debt burdens which follow. Although shortening the degree program from three years to two years, as President Obama urged<sup>44</sup>, is one approach, this is unlikely to be attractive to employers of new law graduates who consistently stress the need for graduates to be better trained with “practice ready” skill sets. Re-engineering a curriculum to achieve this goal at the same time the duration of the academic program is cut by a third is not possible without significant adverse impact on the traditional program of doctrinal instruction, which no one suggests abandoning. The possibility of allowing the first year of law school to substitute for the fourth year of baccalaureate instruction has greater promise, however, and an increasing number of law schools in cooperation with undergraduate institutions are embracing this model. Indeed, there has long been debate about whether a college degree should be a three-year or four-year program<sup>45</sup>, so allowing the first year of professional study to count as the fourth year of the undergraduate degree program is not a difficult stretch for many colleges and universities.

---

<sup>43</sup> *Standard 311(e), 2014-15 American Bar Association Standards and Rules of Procedure for Approval of Law Schools*, at [http://www.americanbar.org/groups/legal\\_education/resources/standards.html](http://www.americanbar.org/groups/legal_education/resources/standards.html) (visited Dec. 22, 2014).

<sup>44</sup> See C. Flaherty, *2 Years for Law School?*, “Inside Higher Education”, Aug. 26, 2013, at <https://www.insidehighered.com/news/2013/08/26/president-obama-calls-cutting-year-law-school> (visited Dec. 18, 2014).

<sup>45</sup> See Center for College Affordability and Productivity, *25 Ways to Reduce the Cost of College, #4, Offer three year Bachelor's Degrees*, Jan. 2010, at [http://www.centerforcollegeaffordability.org/uploads/25\\_Ways\\_Ch04.pdf](http://www.centerforcollegeaffordability.org/uploads/25_Ways_Ch04.pdf) (visited Dec. 18, 2014).

The biggest challenge to the “three-plus-three” degree program is the prospect of students graduating from law school, taking bar examinations, and being licensed to practice law at increasingly young ages where maturities to assume client responsibilities are not adequately developed. Across the country, students in larger numbers are being allowed to double-count certain high school or community college courses for high school and college credit; there are many advantages to these programs and they are very popular. Indeed, it is not unheard of for a high school graduate to be admitted to a college or university with as much as two years of university credit already completed through dual enrollment. Hypothetically, if an individual starts elementary school at age six, skips one grade of elementary school through advanced placement, graduates from high school at age seventeen with two years of college credit, completes the baccalaureate degree through overloads in two summers and a two-semester academic year, the student could matriculate in a law school at age eighteen, complete law school on an expedited basis, and be eligible to take a state bar exam before reaching age twenty-one. Whether such individuals on average have the life experience, maturity, and emotional intelligence to assume responsibility for the affairs of their clients is debatable. But such programs could achieve their cost reduction goals with sacrificing these other values by requiring gap years or certain kinds of work experience during the overall course of study. Indeed, it is possible that such programs might actually increase the readiness of graduates to enter the world of practice.

Fourth, in the current difficult, highly selective placement markets, law schools need to evaluate their curricula to the end of making their graduates more attractive to employers. This, too, is occurring, as law school faculties design and implement enhanced, innovative curricula featuring increased use of externships, redesigned and expanded experiential learning programs, and programs that tie post-graduate hiring to successful completion of a course of study in the law school. Much criticism is leveled at the third year of law school, and thus attention will be concentrated on reforms in this part of the curriculum. The third year is well suited to a concentration of externships, clinics, and experiential programs. One can imagine re-designed third-year curricular tracks that provide specialization in a particular kind of practice, such as corporate, tax, family, wealth management (wills and trusts), advocacy, criminal law, small firm practice, or public service practice. In these programs, the skills involved with collaborative problem solving and risk management, which are increasingly important in the practice of law, can be emphasized. A major challenge is that United States law schools have built their faculties with a disproportionate number of professors who lack the skill sets necessary to deliver this kind of academic program. In revenue-deprived times, pivoting the faculty to one that is capable of teaching a more skills-intensive curriculum will not be simple for many schools in the absence of a substantial number of retirements, resignations, and other attrition among faculty members.

Steven Zack, former president of the American Bar Association, summarized this changing world well when he observed that “the practice of law will change more in the next ten years than in the last two hundred”<sup>46</sup>. This reality places legal education in a delicate space. In my view, the greatest risk we face in legal education is that we will do an excellent job preparing our students to practice in a world that does not exist anymore. As history tells us repeatedly, failing to adapt is not sustainable over the long run. Yet we can take some comfort in the knowledge that embedded in the challenges posed by the disruptive forces at our doors are new opportunities, and those who are the quickest to recognize them will be the ones best positioned to transition effectively into the future that awaits us all.

## **DISRUPTIVE FORCES AT OUR DOORS: CHALLENGES FOR THE LEGAL PROFESSION AND LEGAL EDUCATION**

### **Summary**

Change is constant, inevitable, and sometimes disruptive. This is especially evident both in the legal profession and in legal education, where unprecedented disruptive change is occurring. Disruptive change can be destructive; yet directed, proportional, and adaptive responses can produce effective, even transformational, change. Identifying and implementing the correct direction of change in legal education is challenging due to declining demand for the output of production in the educational enterprise, excess capacity in producing such output, and structural constraints that make timely adaptation to the changing market difficult. In the U.S., the supply of new graduates exceeds available employment, a mismatch that will not significantly abate soon. Simultaneously, the numbers of both applications and applicants for admission are declining, which challenges many law schools’ efforts to maintain entering class quality, financial health, or both. New technologies and project management techniques steadily increase law practice efficiencies, which reduce the need for the number of lawyers needed to do relatively static or declining quantities of work. Non-lawyer professionals are increasingly entrusted with undertaking tasks traditionally understood as lawyer-only roles, which reduces the demand for lawyers to do some kinds of legal work. Legal education is responding with decreased rates of increase in, and sometimes declining, law school tuition, reductions in enrollment, innovations that reduce the net cost of legal education, and curricular reforms. In the face of disruptive change in the legal profession, legal education occupies a delicate space, where without change law schools are at risk of preparing students to practice effectively in a world that does not exist anymore. Yet disruptive forces present new opportunities, and those who are quickest to recognize them and adapt effectively will be best positioned to transition into the uncertain future.

---

<sup>46</sup> S. Zack, *ABA President Stephen Zack Visits UF Law*, Oct. 18, 2010, <http://www.law.ufl.edu/flalaw/2010/10/aba-president-stephen-zack-visits-uf-law> (visited Dec. 18, 2014).



## NIEPOKOJĄCE ZJAWISKA U NASZYCH DRZWI: WYZWANIA DLA PROFESJI PRAWNICZYCH I DLA NAUCZANIA PRAWA

### Streszczenie

Zmiany są nieuniknione, a często uciążliwe. Jest to szczególnie widoczne zarówno w zawodach prawniczych, jak i edukacji prawniczej. Zmiany bywają destrukcyjne, stosowanie natomiast proporcjonalnych środków prowadzi do skutecznej zmiany. Opracowanie i wdrożenie właściwego kierunku zmian w edukacji prawniczej jest trudne ze względu na spadek popytu na absolwentów kierunków prawniczych i ograniczenia strukturalne, które sprawiają, że dostosowanie się do zmieniającego się rynku jest bardzo trudne. W USA podaż nowych absolwentów przekracza dostępne możliwości zatrudnienia. Jednocześnie liczba ubiegających się o przyjęcie na studia prawnicze spada, co podważa wysiłki wielu uczelni, by utrzymać poziom jakości nauczania i kondycji finansowej. Nowe technologie i techniki zarządzania projektami stale zwiększają efektywność wykonywania zawodów prawniczych, co tym samym zmniejsza potrzebę osobistego zaangażowania prawników w czynności zawodowe. Osoby niewykształcone w zawodach prawniczych coraz częściej podejmują się zadań tradycyjnie rozumianych jako role prawników, co zmniejsza zapotrzebowanie na prawników. Rynek edukacji prawniczej reaguje spadkiem tempa wzrostu, spadkiem liczby zajęć uniwersyteckich, redukcją zapisów, ale także innowacjami, które zmniejszają koszty edukacji oraz reformami programowymi. Te często dokuczliwe zmiany stwarzają nowe możliwości rozwoju, a ci którzy najszybciej rozpoznają owe możliwości i efektywnie je zaadaptują, będą najlepiej usytuowani w świecie pełnym zmian.

### BIBLIOGRAPHY

- Ament P., *Hand Held Calculator*, January 2005, <http://www.ideafinder.com/history/inventions/handcalculator.htm>
- American Bar Association Data, *Law School Takeoffs*, March 2014
- American Bar Association Section of Legal Education and Admissions to the Bar, *Law School Tuition, 1985–2012*, [http://www.americanbar.org/content/dam/aba/administrative/legal\\_education\\_and\\_admissions\\_to\\_the\\_bar/statistics/ls\\_tuition.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/administrative/legal_education_and_admissions_to_the_bar/statistics/ls_tuition.authcheckdam.pdf)
- American Bar Association Section on Legal Education and the Bar, *Enrollment and Degrees Awarded 1963–2012 Academic Years*, [http://www.americanbar.org/content/dam/aba/administrative/legal\\_education\\_and\\_admissions\\_to\\_the\\_bar/statistics/enrollment\\_degrees\\_awarded.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/administrative/legal_education_and_admissions_to_the_bar/statistics/enrollment_degrees_awarded.authcheckdam.pdf)
- Brown K. M., *Enter the Disrupters: How New Law Firm Rivals are Disrupting the Market for High-end Legal Services in the U.S.*, Wharton School of the U. of Pa., William and Phyllis Mack Institute of Innovation Management, May 2014, [https://mackinstitute.wharton.upenn.edu/wp-content/uploads/2014/10/Brown\\_Enter-the-Disrupters-V2.pdf](https://mackinstitute.wharton.upenn.edu/wp-content/uploads/2014/10/Brown_Enter-the-Disrupters-V2.pdf)

- Bureau of Labor Statistics, *Databases, Tables and Calculators by Subjects*, <http://data.bls.gov/pdq/SurveyOutputServlet>
- Center for College Affordability and Productivity, *25 Ways to Reduce the Cost of College, #4, Offer three year Bachelor's Degrees*, January 2010, [http://www.centerforcollegeaffordability.org/uploads/25\\_Ways\\_Ch04.pdf](http://www.centerforcollegeaffordability.org/uploads/25_Ways_Ch04.pdf)
- Cohen A., *The Eureka Moment: How six Big Law firms stopped dithering and learned to love legal project management*, „Law Technology News”, August 2012, [http://www.dechert.com/files/Publication/af29e9e2-9a51-40cd-90cd-93b57556ed4f/Presentation/PublicationAttachment/9ac35b4c-0fb3-4199-bc3f-c909d97a6227/Eureka\\_Moment\\_LTN\\_0812.pdf](http://www.dechert.com/files/Publication/af29e9e2-9a51-40cd-90cd-93b57556ed4f/Presentation/PublicationAttachment/9ac35b4c-0fb3-4199-bc3f-c909d97a6227/Eureka_Moment_LTN_0812.pdf)
- Daws A., Brown K. M., *Sketching the Future – Axiom, Valorem, Riverview, LegalZoom: Is this the New Model?*, “Practice Innovations”, October 2014, <http://info.legalsolutions.thomsonreuters.com/signup/newsletters/practice-innovations/2014-oct/article1.aspx>
- Fallows J., *The 50 Greatest Breakthroughs Since the Wheel*, “The Atlantic”, November 2013, <http://www.theatlantic.com/magazine/archive/2013/11/innovations-list/309536>
- Flaherty C., *2 Years for Law School?*, “Inside Higher Education”, August 2013, <https://www.insidehighered.com/news/2013/08/26/president-obama-calls-cutting-year-law-school>
- Georgetown University Law Center, The Center for the Study of the Legal Profession, *2013 Report on the State of the Legal Market*, [http://scholarship.law.georgetown.edu/cslp\\_papers/4/](http://scholarship.law.georgetown.edu/cslp_papers/4/)
- Gordon T., *California Considering Licensing Non-Lawyer Legal Services*, June 2013, <http://www.responsivelaw.org/index.php/blog/item/25-california-considering-licensing-non-lawyer-legal-services>
- Gustin S., *In Kodak Bankruptcy, Another Casualty of the Digital Revolution*, “Time”, January 2012, <http://business.time.com/2012/01/20/in-kodak-bankruptcy-another-casualty-of-the-digital-revolution>
- Johnston I., *Scots genius who paved way for Newton's discoveries*, “The Scotsman”, May 2005, <http://www.scotsman.com/news/sci-tech/scots-genius-who-paved-way-for-newton-s-discoveries-1-712196>
- Jones Merritt D., *The Twenty Year Drop*, February 2013, <http://insidethelawschools.com.blogspot.com/2013/02/the-twenty-year-drop.html>
- JVG, *Encyclopedia Britannica wiped out by Wikipedia, selling final print edition*, “VB News”, March 2012, <http://venturebeat.com/2012/03/13/encyclopaedia-britannica-wiped-out-by-wikipedia-selling-final-print-edition>
- Law School Admission Council, *Data: Three-Year Volume Graphs*, <http://www.lsac.org/lisacresources/data/three-year-volume>
- Law School Admissions Council, *End of Year Summary: ABA Applicants, Applications, Admissions, Enrollment, LSATS, CAS*, <http://www.lsac.org/lisacresources/data/lisac-volume-summary>
- Limited License Legal Technician Board, “Washington State Bar Association”, <http://www.wsba.org/Legal-Community/Committees-Boards-and-Other-Groups/Limited-License-Legal-Technician-Board>

- MacCoon D., *A Reply to Kahlil Gibran's Observation about Optimism and the Rose*, May 2013, <http://oneplanetthriving.com/2013/05/a-reply-to-kahlil-gibrans-observation-about-optimism-and-the-rose>
- Martin E., *10 Popular Jobs That Are Quickly Disappearing*, "Business Insider", July 2014, <http://www.businessinsider.com/jobs-that-are-quickly-disappearing-2014-7?op=1>
- Mayo School of Health Sciences, *Nurse Practitioner*, <http://www.mayo.edu/mshs/careers/nurse-practitioner>
- McGrath J. E., Tschan F., *Dynamics in Groups and Teams: Groups as Complex Action Systems*, (in:) M. S. Poole, A. H. Van de Ven (eds), *Handbook of Organizational Change and Innovation*, Oxford University Press 2004
- National Association for Law Placement, *Class of 2013 National Summary Report*, <http://www.nalp.org/uploads/NatlSummaryChartClassof2013.pdf>
- National Association for Law Placement, *Employment for New Law Graduates is Nearly Steady*, July 2004, <http://www.nalp.org/2004employmentfornewlaw>
- National Association for Law Placement, *Trends in Median Reported Salaries-Class of 2012*, January 2013, [http://www.nalp.org/trends\\_in\\_median\\_reported\\_salaries\\_class\\_of\\_2012](http://www.nalp.org/trends_in_median_reported_salaries_class_of_2012)
- Oregon State Bar, *Task Force on Limited License Legal Technicians*, <http://bog11.homestead.com/LegalTechTF/meetings.pdf>
- Project Management Institute, *What is Project Management?*, <http://www.pmi.org/About-Us/About-Us-What-is-Project-Management.aspx>
- Rule 28, *Limited Practice Rule for Limited License Legal Technicians*, <http://www.wsba.org/~media/Files/WSBA-wide%20Documents/LLLT/Rules%20and%20Regulations/20130820%20APR%2028.as>
- Slide Rules, *The National Museum of American History (Smithsonian)*, <http://american-history.si.edu/collections/object-groups/slide-rules>
- Standard 311(e), *2014-15 American Bar Association Standards and Rules of Procedure for Approval of Law Schools*, [http://www.americanbar.org/groups/legal\\_education/resources/standards.html](http://www.americanbar.org/groups/legal_education/resources/standards.html)
- Susskind R., *Tomorrow's Lawyers*, Oxford 2013
- Tarleton M., *The LLLT and the Power of Positive Thinking*, October 2013, <http://www.attorneyatwork.com/lllt-and-the-power-of-positive-thinking>
- The Oughtred Society, *Slide Rule History*, <http://www.oughtred.org/history.shtml>
- Tschan F., *Website, Universite de Neuchatel, Faculty of Science, Institute of Work and Organizational Psychology*, <http://www2.unine.ch/ipto/page-5563.html>
- U.S. Dep't of Labor, Bureau of Labor Statistics, *Employment Projections: Employment by detailed occupation*, December 2013, [http://www.bls.gov/emp/ep\\_table\\_102.htm](http://www.bls.gov/emp/ep_table_102.htm)
- Vassallo J., *Law Schools Slowly Reducing Tuition*, "JD Journal", January 2014, <http://www.jdjournal.com/2014/01/16/law-schools-slowly-reducing-tuition>
- Weiss D., *Average Debt of Private Law School Grads is \$125K; It's Highest at These Five Schools*, "ABA Journal Blog", March 2012, [http://www.abajournal.com/news/article/average\\_debt\\_load\\_of\\_private\\_law\\_grads\\_is\\_125k\\_these\\_five\\_schools\\_lead\\_to\\_m/](http://www.abajournal.com/news/article/average_debt_load_of_private_law_grads_is_125k_these_five_schools_lead_to_m/)
- Zack S., *ABA President Stephen Zack Visits UF Law*, October 2010, <http://www.law.ufl.edu/flalaw/2010/10/aba-president-stephen-zack-visits-uf-law>

**KEYWORDS**

change, disruption, disruptive change, organization dynamics, innovation, adaptation, legal markets, legal profession, delivery of legal services, legal employment, law placement, technology, law practice technology, professional licensure, "Limited License Legal Technician", project management, legal education, tuition, costs of legal education, student debt, law school enrollment, demand for legal education, law school curricula, curricular reform

**SŁOWA KLUCZOWE**

uciążliwe zmiany, dynamika organizacji, innowacje, adaptacja, rynki prawne, zawody prawnicze, świadczenie usług prawnych, technologie, licencje zawodowe, zarządzanie projektami, wykształcenie prawnicze, koszty edukacji prawnej, zadłużenie studenta, popyt na studia prawnicze, reformy programów nauczania