

The Transformation of Legal Education in the Post 21st Century Disruptive Technology: A Case Study of Disruptive Digital Technology in Law Schools

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Abstract

The research has objectives to study (1) the major roles of the post 21st century disruptive technology on the transformation of legal education system by integrating digital technology in law schools; and (2) the impacts of disruptive digital technology on the revolution of the legal education system worldwide. The study applied a documentary research methodology by data collection and content analysis of related data documents. The research results and discussion found that law schools have to concern major roles of the disruptive technology on the transformation of legal education system in order to take action on the transformation of online competency-based legal education by digital technology. This is because the disruptive legal technologies have great impacts of on both legal education and legal profession: impacts on lawyers, impacts on law firms and impacts on non-lawyer lay people, as well as impacts on dispute resolutions and the justice system. The research conclusion recommends therefore that Law schools have three possible paths for great transformation under the disruptive technology of digital age: (1) Launch autonomous legal education models to pioneer disruption technology (2) Use online learning as a sustaining innovation to improve current legal education and law profession practice and (3) Specialize by creating programs that allow Juris Doctor (JD) students to focus deeply on a particular area of law.

Keywords: transformation, legal education, post 21st century, disruptive technology, digital technology in law schools

บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อศึกษา (1) บทบาทสำคัญของเทคโนโลยีใหม่ที่กำลังเปลี่ยนโลกครั้งใหญ่ในการเปลี่ยนแปลงระบบการศึกษา กฎหมายโดยการบูรณาการเทคโนโลยีดิจิทัลในคณะนิติศาสตร์ และ (2) ผลกระทบของเทคโนโลยีดิจิทัลที่เปลี่ยนแปลงโลกครั้งใหญ่ในการปฏิวัติระบบ การศึกษากฎหมายทั่วโลก โดยใช้ระเบียบวิธีการวิจัยเอกสาร (Documentary Research) ในการเก็บรวบรวมข้อมูลเอกสารและวิเคราะห์เชิงเนื้อหาข้อมูล เอกสารที่เกี่ยวข้อง ผลการวิจัยพบว่า คณะนิติศาสตร์จำเป็นต้องคำนึงถึงบทบาทอันสำคัญของเทคโนโลยีใหม่ที่กำลังเปลี่ยนโลกครั้งใหญ่ในการเปลี่ยนแปลง ระบบการศึกษากฎหมายเพื่อดำเนินการเปลี่ยนแปลงระบบการศึกษากฎหมายบนฐานศักยภาพความสามารถของนักศึกษาในระบบการศึกษา ออนไลน์โดยใช้เทคโนโลยีดิจิทัล เนื่องจากเทคโนโลยีใหม่ที่กำลังเปลี่ยนโลกครั้งใหญ่ทางด้านนิติศาสตร์นี้มีผลกระทบอันใหญ่หลวงต่อทั้งการศึกษา กฎหมายและการประกอบวิชาชีพทางกฎหมายคือ ผลกระทบต่อนักกฎหมาย ผลกระทบต่อบริษัทสำนักงานกฎหมาย ผลกระทบต่อนักกฎหมายที่ไม่ใช่ นักกฎหมายซึ่งเป็นประชาชนคนธรรมดา รวมทั้งผลกระทบต่อการรับข้อพิพาทและระบบการยุติธรรม ดังนั้น การวิจัยนี้จึงมีข้อสรุปและข้อเสนอแนะว่า คณะนิติศาสตร์มีแนวทางที่เป็นไปได้สำหรับการเปลี่ยนแปลงครั้งใหญ่ภายใต้อิทธิพลของเทคโนโลยีใหม่ที่กำลังเปลี่ยนโลกครั้งใหญ่ในยุคดิจิทัลสาม แนวทาง คือ (1) มุ่งสู่การใช้เทคโนโลยีใหม่ที่กำลังเปลี่ยนโลกครั้งใหญ่บุกเบิกการสร้างรูปแบบการศึกษาที่เป็นอิสระ (2) ใช้การเรียนรู้ในระบบออนไลน์เป็น นวัตกรรมที่ยั่งยืนเพื่อปรับปรุงการศึกษาและการปฏิบัติวิชาชีพทางกฎหมาย และ (3) มุ่งสู่ความเชี่ยวชาญเฉพาะทางโดยการสร้างหลักสูตรที่เปิด โอกาสให้นักศึกษาปริญญาเอกทางกฎหมายให้มุ่งศึกษาอย่างลึกซึ้งในกฎหมายพิเศษเฉพาะด้าน

คำสำคัญ: การเปลี่ยนแปลง การศึกษากฎหมาย หลังศตวรรษที่ 21 เทคโนโลยีที่เปลี่ยนแปลงโลกครั้งใหญ่ เทคโนโลยีดิจิทัลในคณะนิติศาสตร์

1. Introduction

World history reveals that the transition from one dominant medium of information to another, having different qualities, inevitably shapes the whole human culture and experiences. There have been two information technology revolutions in recorded world history. The first information technology revolution began with the advent of printing in the 15th century and, within 100 years, transformed humanity from an oral culture to a textual culture. The second information technology revolution began as television, video, and computers converged to create a new information technology medium: the screen. Screen-based information is transforming our culture from one that is based on printed-text to one that is based on hypertext. This screen-based information technology revolution, only a few decades old, will have as significant an effect on human learning as did the first information technology revolution 500 years ago (Lasso, 2002). Students now entering law school grew up watching television, playing video games, and viewing internet computer screens. In a few years, students reared almost entirely on digital information will be arriving in law schools. These 21st century students think, behave, and learn differently than their predecessors and professors, who learned primarily from printed text. This learning transformation presents significant challenges to revolutionize legal education system.

As a disruptive technology is a new technology that completely changes the way things are done and overturns a traditional business model, which makes it much harder for an established firm to embrace. The disruptive technology is thus one that displaces an established technology and shakes up the industry or a ground-breaking product that creates a completely new industry. Harvard Business School Professor Clayton M. Christensen (1997) separates new technology into two categories: sustaining and disruptive. When sustaining technology relies on incremental improvements to an already established technology, disruptive technology lacks refinement, often has performance problems because it is new, appeals to a limited audience and may not yet have a proven practical application; such was the case with Alexander Graham Bell's "electrical speech machine", which we now call the telephone (Rouse, 2015). Therefore, the digital technology becomes a disruptive technology to be incorporated in the 21st legal education.

This paper is a part of research project to study a strategy for law schools in many countries to incorporate digital technology into the curriculum to better achieve the goals of legal education in the post 21st century by digital technology revolution. The computer with internet and hypertext are affecting the way humans learn in much the same way as printed text did in the 16th and 17th centuries. With limitations of teacher-centered pedagogy, student-centered teaching is more compatible with legal education goals of digital technology. Law schools in many countries are integrating digital technology into the curriculum for more effectively teaching 21st century students. The digital technology is transforming the way 21st century students learn compared to their older counterparts, and realizing student-centered teaching more effectively reaches these new legal learners (Caron & Gely, 2004). When law schools incorporated digital technology into law teaching, the 21st century students can learn better and achieve their learning potentials.

2. Objectives of Research

The research aims to study: (1) the major roles of disruptive technology in the post twenty-first century on the transformation of legal education system by integrating digital technology in law schools; and (2) the impacts of disruptive digital technology to revolutionize the legal education system worldwide.

3. Research Methodology

The study is a documentary research methodology by data collection of documents from related books, journals, research reports and legal texts as well as internet documents. The researcher applied content analysis and comparative analysis of all collected documents concerned.

4. Results and Discussion

The results of this research found that:

4.1 Major roles of the disruptive technology on the transformation of legal education system

The Digital Age provides an opportunity to revitalize and modernize legal education and to make it more individualized, relevant, human, and accessible. (Binford, 2014) Under the Digital Revolution, the emerging omnipresence of digital technologies in legal education is inescapable. Thus, legal educators must provide leadership and vision, partnering with publishers and software programmers and developers to ensure our students receive the best legal education possible in the Digital Age. If we do not, commercial enterprises will simply dictate our teaching resources and methods and, in the process, perhaps our obsolescence (Binford, 2014). The research question is: will legal educators engage in the thoughtful, reflective and visionary recreations of legal education that is destined or will we simply serve as twentieth century models for the twenty-first century avatars software programmers will create to replace us? Will legal educators turn away our eyes from the methods and resources of the twentieth century and look to the Digital Age to envision the future of legal education? If the shackles of habit, culture, and accreditation were broken, what would legal education look like in 2050? (Binford, 2014)

After the death of the twentieth century casebook, legal education will experience a massive disruption in the twenty-first century due to the Digital Revolution. The inevitability of this disruption is best epitomized by the transformation of the Legal Division of Thomson Reuters in the early twenty-first century. In the last ten years, Thomson Reuters has sold its law school publishing business while developing and promoting its electronic legal research database (WestlawNext), online course management program (TWEN), law practice management software (Concourse), adaptive learning software (BarBri's AMP), and digital curriculum sharing software (Law School Exchange) (Binford, 2014). In the rebirth of customized law school coursework one hundred years later, publishers again are compelling change in legal education; but this time, they are moving away from the standardized, hardbound casebook and utilizing digital technologies to modularize, diversify, and enrich legal education materials (Caron & Gely, 2004). Therefore, the significance of this change cannot be understated. As much as we like to imagine legal education as being comprised predominantly of great conversations between a sage-like professor and students, Socratic style, the fact remains that much, if not most, educational content in law school is delivered outside of the classroom (Corsair, 2008). It is standard practice for law professors to assign two to four hours of reading for every hour of instruction. Since most of this homework has traditionally consisted of reading standardized casebooks, the end result is that casebooks have dictated content and approach to the course materials (Binford, 2014). In short, if casebooks are fundamentally changed, approximately 50 to 75 percent of a law school student's content delivery experience is changed.

Indeed, the role of twenty-first century law schools should be to know every single student individually and to adapt curriculum content and delivery to their unique needs and goals starting with the law school application process. If law schools were restructured to relieve law school faculty of most of their traditional coursework responsibilities, it would free twenty to twenty-five hours per week for most individual faculty members. Without traditional lectures, we no longer would be tied to the twenty-six week teaching schedule, and law schools could operate year-round, further reducing the cost of legal education as students complete their legal education more quickly. Instead of being the "sage on stage", law school professors would serve as professional mentors and education coaches to a small affinity group of twelve to eighteen students during their entire law school careers. The restructuring of law schools would give each professor-coach the time and opportunity, as well as express responsibility, to get to know each student individually, and to guide him or her through an individualized curriculum developed collaboratively. The professor-coach would help students (1) find the content they need, (2) ensure they are making progress in acquiring content, skills, and values through appropriate assessments, and (3) spend time problem-solving individually and in small groups as challenges are encountered (Binford, 2014). The professor-coach would

help the students identify externships, simulations, clinical training, jobs, and other opportunities that enable students to launch their professional lives successfully and in accordance with their individual goals. The post twenty-first century disruptive technology shall be on a collision course with the nineteenth century pedagogy that dominated law schools throughout the twentieth century. The law school model that endured for nearly 150 years will not survive to see the dawning of the next millennium. The Digital Age has made traditional law school pedagogy obsolete with the demise of the standardized casebook and the rise of digital resources such as the Internet, adaptive learning programs, interactive and customizable textbooks, online assessments and tutorials, and more (Cornell University Law School, 2012). It is time for legal educators to recognize that digital technologies are transforming society and its educational institutions rapidly and forcefully. Law schools are unable to avoid these transformations. Rather than respond in fear or denial, law school faculties should view the Digital Age as an opportunity to embrace and harness powerful technologies that will help us develop meaningful and relevant pedagogical tools to teach our students more effectively, efficiently, and affordably on an individualized basis.

4.2 The transformation of online competency-based legal education by digital technology

The question is why law schools need to respond to the changing marketplace for legal education and legal profession. In thinking about how best to prepare for that changing world, law schools need to consider how online competency-based legal education models can be employed to advance learning objectives for students seeking to enter the market for legal profession. As Michael Horn and Michele R. Pistone (2016) explained in their new whitepaper "Disrupting Law School", regulatory protections that have sheltered law schools from competition will continue to subside. In this new environment of legal education under the digital technology progress, law schools need to reimagine themselves as educators for students interested in learning about the legal profession in legal services sector, not simply those seeking a Juris Doctor (JD). One way to do this is to think about legal education from a blank slate. Rather than try to retrofit our current pedagogy to address the post 21st century legal disruptive technology needs, instead we need to think about it from its inception - if one were to start a school today to educate those who want a career in the legal profession services fields. Upstart competency-based education programs have done just that in other parts of higher education. They provide at least three new considerations for traditional law school as they begin to think about and prepare for the future (Pistone, 2016) as follows:

(1) Time is no longer measures of learning accomplishment: Online competency-based learning reverses the traditional relationship in education between time and student learning. In the traditional legal education model, time is fixed while each student's learning is variable. With online competency-based learning, the relationship between time and learning is reversed - time becomes the variable and each student's learning becomes essentially fixed. Students process at their own pace, moving from topic to topic upon mastery of each. Those who need more time to master a concept before moving on to the next take the time they need, while others move ahead to the next set of material and learning objectives.

(2) Centrality of competencies, learning outcomes, and assessments: Online competency-based programs shift the teaching pedagogy toward student-centered learning. In an online, competency-based program, faculty and instructional designers start by identifying the competencies that students must master to achieve the desired learning outcomes and then work through each to understand how a student would demonstrate mastery of those objectives. Through constant feedback, students know how they are doing and what they need to do next and teachers can determine when students have mastered competencies and are ready to move forward. The assessments in other words are both forward looking - assessments that help determine what a student studies next - and backward looking - assessments that indicate whether a student has mastered the course materials.

(3) Modularization of course materials provides more flexibility and diverse learning models: The online competency-based learning based on digital technology is also changing key elements of the traditional higher legal education model. Online technologies make it possible to modularize the learning process - that is, to break usual semester - long courses into shorter learning units or modules, which can be

studied in sequence or separately. When material is packaged in online modules, it is easier to use for multiple educational purposes and multiple audiences in different combinations.

Stackable modules allow students to create individualized curricula based on their own learning goals and objectives. For students who attend law school knowing the area of law in which they want to practice - a segment of the student body currently underserved due to limited course offerings in any one topic at any one law school - modules open up opportunities to stack credentials from multiple sources. The long tail of the Internet opens up these opportunities; there may be sufficient student demand if online courses can aggregate demand and serve students from around the country or even the world (Pistone, 2016). Modules also eliminate duplication and optimize teaching resources. This flexible architecture can create an entirely new business model for law-related education. When learning is broken down into competencies - rather than semester-long courses - modules of learning can be packaged into different scalable programs for very different audiences - e.g. paralegals, legal technicians, law students, lawyers (CLE), judges, administrative agencies, non-JDs working in law-related fields, foreign students, high school/college moot court teams, undergraduate students, journalists, clients, life-long learners, etc.

4.3 Impacts of disruptive legal technologies on the legal education and legal profession

Throughout history we have merely underestimated the power of technology to change our world. The arrival of the printing and press technology didn't just allow us to print books and learning documents. It increased literacy and improved education progress. Digital technologies have changed decision-making, how we express ourselves and our expectations. Sectors after sectors, including legal education and legal profession, have been reshaped by the revolution of digital disruptive technology. But like so many others, the legal sector is ripe for digital disruption. There are so many impacts and opportunities for digital disruptive technology to bring about improvements of legal education and legal profession as follows:

(1) Impacts on lawyers: The digital technology of Internet has impacted the "major players" in the business of law and lawyers. Seven years ago few lawyers chose to work online. Those that did used the Web for online legal research. Lawyers' first exposure to online work was finding and downloading court decisions. In the space of seven years, however, that has rapidly changed. Now, being online is fully integrated with lawyers' daily routines. They communicate with other lawyers and clients, do research, network, market their practice and stay current with developments in their practice area, all online (Blackman, 1998). As incubators of the legal profession, law schools are becoming more direct and proactive in integrating the learning of research skills, tools and methodologies throughout legal education. No longer would a first year course in legal research and writing be considered adequate professional preparation for the changes occurring in the sources and access to legal information. In the UK, the Law Society and Council of the Bar issued a joint statement in 1999 requiring law schools to introduce to their undergraduates a basic range of IT skills (Howe, 2003). The University of Cambridge took the lead and now requires all first year students at the Faculty of Law to successfully complete a compulsory IT course.

(2) Impacts on law firms: According to the Sarbanes-Oxley Act signed into law by US President George W. Bush in August, 2002, all companies, including those which are Canadian-based, that list on US stock exchanges are required to comply with stringent new corporate accountability rules, including a provision that mandates senior executives to personally certify financial reports. The US Act does not exempt foreign issuers from its strict provisions and, as a result, Canadian companies will be required to follow most of the new rules (Arthurs, 2003). In addition, the borderless nature of the digital technology of Internet has created and will continue to create a challenge to US firms as many Canadian and European firms directly access the US legal market. From US firm's perspectives, Internet will play a critical strategic role in enhancing the ability of foreign firms to access US clients and law students. As Americans were involved in designing the system, they became involved in regulating the system in the context of US law.

(3) Impacts on non-lawyer lay people: The democratizing process has begun in the area of law under the disruptive legal technologies (Howe, 2003). In the United States, lay people can obtain practical legal guidance from the My Lawyer Website (www.mylawyer.com). That guidance is in the form of simple

explanations of legal issues as well as a series of frequently asked questions. Various aspects of US law are covered: immigration, debt, neighbors and personal injury. There are even inexpensive legal documents available, such as a power of attorney or a prenuptial agreement, at a modest cost. Using the latest software, documents can be generated automatically once users complete secure online questionnaires.

(4) Impacts on Dispute Resolution and the Justice System: Historically, the alternative dispute resolution (ADR) mechanisms have played an important role in providing consumer redress and, because such mechanisms provide relatively inexpensive and quick results, they are often favored by consumers and businesses alike. In an online environment, the advantages of ADR over court action become even more evident (Christensen, 1997). For example, the use of ADR does not usually bring into play jurisdictional issues that are likely to arise under jurisdiction-based court systems. In addition, new services and trading mechanisms can develop on the Internet in a short period of time. As well, ADR has more flexibility to adapt to changes in the trade environment and advances in technology

Moving closer to the bottom of the dispute resolution inverted pyramid, the State of Michigan recently created an online state court. The cybercourt will have jurisdiction over business and commercial complaints in which the dispute is more than \$25,000. It is expected to go “live” in October, 2002. A judge will preside over the online court system which requires e-document filing and teleconferencing for arguments. Cases can be transferred to Michigan’s circuit court system and decisions can be contested at the Appeals Court level. According to Michigan’s Governor, John Engler, the online court “will make Michigan uniquely attractive for the New Economy Businesses the same way the State of Delaware has had an advantage for incorporation of major public companies.” (MacMillan, Robert, 2002). As a result, digital technology can improve efficiency so increasingly efficacy of justice process and dispute resolution.

4.4 A case study of impact scores for disruptive legal technologies on legal education

In a case study of J.B. Ruhl (2015), when law was practiced without computer-based Westlaw or Lexis, when legal technology consisted of the five essentials: a land line telephone, Dictaphone, IBM Selectric, light switch, and thermostat. Westlaw and Lexis were, from the late 1970s until 1986, accessed only via phone modem. He recalls using the modem in law school, and then at his firm in the mid-1980s experienced the miracle of using a computer to run simple searches. Life after that was not the same. So this is not the first time legal practice has faced “disruptive technology.” But what exactly does that mean - disruptive technology? And how do we apply a metric to “disruptiveness”? (Ruhl, 2015). As many readers will know, the origins of the term stem from Harvard Business School Professor Clayton Christensen’s theory of disruptive and sustaining innovations. A disruptive innovation helps create a new market or industry and eventually disrupts an existing market or industry. In contrast, a sustaining innovation does not create new markets or industries but rather evolves existing ones to achieve better value. Therefore we can ask a question: what is disruptive (and sustaining) about disruptive legal technology? J.B. Ruhl came up with five effects, each of which has a 20-point impact scale (Ruhl, 2015) as follows:

(1) Quality enhancing impact: In the do it better, faster, and cheaper trilogy dominating the legal industry today, quality enhancing technology works on the delivery of better service. For example, Westlaw and Lexis vastly improved the accuracy of search results, such as “find cases from the federal courts in the Fifth Circuit that say X and Y but not Z.” Sure, a lawyer could have run key number headings in the books and read through legal encyclopedias, but the miss rate simply went down when Westlaw and Lexis came on line. So to, with its deep database of IP cases and filings and assessable research design, does Lex Machina improve accuracy of searches about IP litigation, though at present it does not run broad substantive research searches. Scores: Westlaw and Lexis 18; Lex Machina 12

(2) Efficiency enhancing impact: Anyone who has ever run key numbers in hard copy digests or Shepardized a case using books will appreciate the efficiency enhancement Westlaw and Lexis provided - “do it faster” component of today’s client demands. Similarly, although one could use the brute force of Westlaw or Lexis searches to assemble the results of a Lex Machina search about the IP litigation profile of a judge, it’s a heck of a lot faster using Lex Machina. Scores: Westlaw and Lexis 18; Lex Machina 18.

(3) Demand displacement effect: Assume a world in which the number and scope of client driven legal searches does not change. In that case, the introduction of a new legal technology that has quality and efficiency enhancement effects is likely to displace demand for service in some sectors of the legal industry if the technology is a cost-effective competitor-e.g., Westlaw and Lexis allowed better and faster legal searches, but unless priced to be cost-competitive with old lawyer-intensive ways of doing legal searches, they won't penetrate the market. Bottom line, there are fewer billable hours to go around. Given the success of Westlaw and Lexis in establishing their markets, one has to assign them potentials for this displacement effect. It's much harder to tell with Lex Machina, because it's not clear what the demand was for the information its type of searches provides prior to its availability. Scores: Westlaw and Lexis: 15; Lex Machina 8.

(4) Transformative effect: The opposite side of the coin is the potential a new technology has to open up new markets for legal tasks not previously possible or valued. For example, other than paying for a bespoke lawyer's judgment about the profile of a particular court for IP litigation, I find it hard to believe many clients would have paid lawyers to perform the kinds of hyper-detailed big data litigation information searches Lex Machina makes possible about lawyers, courts, and patents. Even more so, some of the search techniques Westlaw and Lexis made possible would have been virtually impossible to replicate the old fashioned way with the books. To the extent these new capacities are valued - e.g., they lead to better litigation prediction and outcomes - they will increase demand for service. Hence the transformative effect can work to offset the displacement effect, meaning a new legal technology might increase the pool of billable hours. Scores: Westlaw and Lexis 15, Lex Machina 12.

(5) Destructive effect: All of the above discussion has assumed it will be lawyers using the new technology, which clearly will not always be the case - new technology might reduce or eliminate the need for a lawyer at the helm. Some new technologies will provide user interfaces that do not require an attorney to operate. The rise of paralegals conducting research on Westlaw and Lexis is an example. Even more destructive are technologies like predictive coding, used in e-discovery to vastly reduce the need for lawyers, and online interfaces such as Legal Zoom, which sidesteps the Main Street lawyer altogether. My sense is that Westlaw and Lexis did not have so much destructive effect outside of pushing some work down to paralegals, and the same will hold true for Lex Machina. Scores: Westlaw and Lexis: 8; Lex Machina 8.

Total Impact Scores: Westlaw and Lexis 74; Lex Machina 58. Of course, this is all meant to be a bit provocative and poke some at the overuse and misuse of the "disruptive technology" theme in our current legal world. At the very least, J.B. Ruhl (2015) suggested that law schools shall have a model of digital curriculums of legal education that the students can use to dissect the legal disruptive technologies they choose to study in the next three decade of Law 2050 class.

5. Conclusion and Recommendations

The theory of disruptive technology suggests that the traditional law school model is breaking apart at its seams. By maintaining their traditional strategies focused on prestige, law schools are ignoring the longer term impacts that the disruption of traditional legal services businesses will have on law schools. Facing dramatic declines in enrollment, revenue, and student quality at the same time that their cost structure continues to rise and public support has waned, law schools are in crisis under the pressure of disruptive technology. A key driver of the crisis is shrinking employment opportunities for recent graduates, which stem in part from the disruption of the traditional business model for the provision of legal services. The collapse is so fundamental that law schools cannot circumvent it by improving the financial performance of endowment investments, tapping wealthy donors more effectively, or collecting more tax dollars from the public. They need a new model of digital legal education to serve legal professions and services. The only question is whether law schools will react in time or whether new institutions

aggressively using scalable, competency-based online programs will do so instead - and ultimately grow to replace today's traditional institutions.

As law schools have to change their traditional teaching methods, it becomes clearer that the traditional textbooks that have been using in law schools for many decades need to be adjusted to digital technology. For many years, the textbooks that professors assigned have mostly contained reprinted appellate cases, with a varying amount of interstitial materials between them. But as legal education moves to more online learning, law schools will need different digital materials. Fortunately, some legal publishers are beginning to fill that gap by creating materials designed for more integrated and contextual learning, and by creating hybrid materials that are a mixture of printing and online (Thomson, 2016). In such a model of new legal education, the interstitial materials are provided in print so the student can do the "lean back" reading of the basic information about the legal principles, and then "lean forward" and interact with an digital online companion site designed to work hand-in-hand with traditional textbooks.

Law schools can therefore survive by integrating digital technology into the traditional curriculum for more effectively teaching 21st century students. However, in order to do so they must recognize that competition will come from outside the industry - from institutions that are not currently even on their radar screen and that are not encumbered by concerns about traditional ranking and prestige. After recognizing the threat, to survive and thrive, law schools must then reframe this moment as an opportunity to stop chasing prestige for its own sake and start creating disruptive educational models themselves. Clayton Christensen Institute for Disruptive Innovation (2016) recommends therefore that Law schools have three possible paths for transformation under the disruptive technology of digital age: (1) Launch autonomous legal education models to pioneer disruption technology (2) Use online learning as a sustaining innovation to improve current legal education and law profession practice and (3) Specialize by creating programs that allow Juris Doctor (JD) students to focus deeply on a particular area of law.

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