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PORTABLE LEARNING FOR THE 21ST
CENTURY LAW SCHOOL: DESIGNING
A NEW PEDAGOGY FOR THE
MODERN GLOBAL CONTEXT

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I. INTRODUCTION

In the 20th century, legal education in the United States traditionally was a stationary, fixed-location enterprise. The educational process was “fixed-location,” meaning that learning occurred primarily within the confines of the law school classroom space, and was generally propelled by Socratic-type questioning methods of students. This structured interaction, buffered by lecturing and some more interactive methods, dominated the learning process. Teaching generally ended at the classroom doors, with student learning continuing independently, most often in another fixed space, the law school library. This linearity of classroom teaching and learning, followed by independent library learning, was the norm in legal education for decades.

Even today, in the early 21st century, teaching often remains centered on the immoveable and fixed-location classrooms, with a teacher dispensing material to students from written texts, mostly involving case law. Students take a seat in the classroom, where most of the formal learning process is expected to occur.1 Outside of class, the disjunctive between teaching and independent student learning remains. Students generally are expected to study on their own, assembling information as they go without much institutional structure or assistance from their

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1. In many classes, students often occupy the same physical seats, over and over again, further demonstrating the environment of fixed-learning.
professors. Currently, students are still expected to prepare effectively for class.

Due to the fixed-location approach to legal education, there is often a paucity of feedback given to students about their performance. While classes are used to teach and learn, “extra” classes or sessions are not often used, especially for feedback. Unless students take the initiative to utilize office hours, the linearity does not itself create any formative feedback loops – where the teacher teaches, the student learns and the student learning is checked again by the teacher or some other mechanism.

Strikingly, each basic course, particularly in the traditional first year of law school, includes only a final summative exam. A grade results, with sometimes very little being written by the professor explaining how the grade was reached or the exam’s strengths and weaknesses. This lack of information is consistent with the closure given to a course upon the in-school final exam and the end of classroom meetings.

Despite its longstanding role, the linear and fixed-location construct of traditional legal education recently has come under intense scrutiny for several reasons. The fixed-location approach to legal education belies the rapidly changing face of law practice due to technology, globalization, and other factors. The fixed-location orientation also does not comport with the changing face of portable education in the form of distance learning (i.e. iPod mobility and Web-based education).

Rapid changes in portable media devices have revealed a growing disparity between traditional legal education and law practice. The transformation of the practice and business of the law call for change in legal education to meet the demands of an increasingly global profession. This disparity not only concerns what material is taught, but also where it is taught. The 21st century law student has been transformed by different mediums of advancing technology. Thus, modern law students are proficient with a variety of technologies, from text messaging, to iPod downloads, to Internet usage, to blogging even during class, and feel very comfortable “multi-tasking.”

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2. ‘Extra classes’ might include review or other sessions designed to amplify the material studied during regularly scheduled class time and allow students additional opportunities for classroom learning.

3. See e.g., WILLIAM M. SULLIVAN, ET. AL., EDUCATING LAWYERS: PREPARATION FOR THE PROFESSION OF LAW (Jossey-Bass 2007) (hereinafter CARNEGIE REPORT); ROY STUCKEY, ET. AL., BEST PRACTICES FOR LEGAL EDUCATION: A VISION AND A ROAD MAP (Clinical Legal Education 2007) (hereinafter BEST PRACTICES).

4. CARNEGIE REPORT, supra note 3.

5. BEST PRACTICES, supra note 3, at 45.

Teaching can and should occur even after the fixed-location class has ended. This article suggests that a more portable learning environment would better match the changing world and make legal education more effective. While this notion is not revolutionary in many other educational contexts, it has not had much impact in legal education to date. Yet, with 21st century students ready and willing to receive portable education and the metacognition of learning supporting such venues, portability in legal education is primed for its moment.

Additionally, this article points out that accepting portability merely as a part of the legal education scaffolding will not end the discussion or debate about it. Perhaps the most significant issue raised by accepting the premise of portability in legal education involves redefining the classroom. The issue raises normative and deep structural issues about legal education generally. Thus, the answer is not so easy.

II. LEGAL EDUCATION ORTHODOXY:
FIXED-LOCATION LEARNING

A. TRADITION: LAW AS A STATIONARY, LINEAR EDUCATION

Traditionally, legal education was a stationary and linear endeavor, much like an assembly line. Professors transferred information to students in classes, who in turn assembled the knowledge into an organized and useable form outside of class, often in a library or other “study” place. This information was assimilated and utilized on the final exam and then warehoused for possible future use.

The predominant teaching method, the Socratic Dialogue approach (“Socratic Method”), promoted the notion that learning occurred in the

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7. See, e.g., Ken Bain, What the Best College Teachers Do (Harvard Univ. Press 2004).
8. See, e.g., The University of Phoenix, http://www.phoenix.edu/ (last visited Aug. 11, 2009); Concord Law School, http://www.concordlawschool.edu/ (last visited Aug. 11, 2009). Concord Law School, based in California, offers is a completely online legal education, along with other online educational programs, based in California, and other university online education programs.
9. Redefining not only what should be taught in a law school class, but also considering what should be moved outside of the classroom.
10. In essence, the questions raised involve institutional goods and outcomes as well as those related to individual classes. See, e.g., Gregory Scott Munro, Outcomes Assessment for Law Schools (Institute for Law School Teaching 2001).
13. Id. at 53.
14. Id.
The Socratic Method requires synchronous interaction between teachers and students. It involves more than one student and relies on the premise that non-participating students learn from the dialogues they are witnessing.

The information dispensed by the professor in class was intended to inculcate students with the ability to “think like a lawyer.” “Thinking like a lawyer” also generally occurs in a linear manner. Students read appellate cases prior to class, which were evaluated and probed in class, then pushed aside for different cases on new topics. At the end of a course, students are left to piece together the threads of the doctrinal areas, and how they relate to each other.

Traditionally, students were not expected to study on the go. Rather, students would study in a fixed place such as the library. The premise was that learning would be more effective in some locations over others. A library-type location stressed quiet, singular focus, and sitting as the elements of preparation. In effect, silent indoor fixed learning was preferable to mobility.

The singular treatment of students and how they learned had numerous implications. It reaffirmed the “scientific” nature of the legal education process by implicitly approving a methodology for success. The linearity also allowed for replication in law schools across the country and over time.

1. Normative Texts

Under the Socratic Method, class time is spent dissecting appellate cases gathered in textbooks. These texts gathered leading cases in the field as teaching tools, even though the opinions were not written for that purpose. The professor served as an orchestra conductor to tease information and understanding from students, using the cases as illustrations, launching points and proxies for student problem solving. The cases served as the basis for the dialogical framework of the Socratic Method as well.

15. Id.
16. Id.
17. The singular focus of law study on thinking like a lawyer, epitomized in films such as THE PAPER CHASE (Thompson Films 1973), implied that the sheer quantity of time required to learn to think like a lawyer related to its quality. In contrast, the popular culture also intimated that each person had a limit and that some or many students were not minimally qualified to become a lawyer no matter how hard they tried.
18. STEVENS, supra note 12, at 118.
19. Id. at 53.
20. STEVENS, supra note 12, at 119.
21. Id. at 56.
In essence, law teachers often taught to the casebook and not necessarily the subject matter or the class. The authors of the text thus created not only the subject of the study, but its ordering and emphasis as well. If a book emphasized a particular topic with a greater number of cases, that topic often occupied greater class time and correspondingly, exam time.

Textbooks were not geared toward group work or alternative forms of classroom interaction. The cases accommodated linear learning nicely and have been used for decades. Of course, disinterested students “doodled” or drifted away from the class mentally. While physically present, it was not always easy to discern whether a student-observer or even student participants were engaged mentally.  

2. Traditional Faculty

The majority of American law faculty teaching in the 20th century and today received law degrees in the 20th century. Consequently, despite considerable differences in age and their own professional backgrounds prior to entering the law teaching field, members of law faculty share a relatively common law school experience. This commonality is perpetuated through the faculty recruiting process, which favors candidates from top tier law schools who share common academic credentials, such as law review and judicial clerkship experience. In sum, law faculty exemplifies the best and brightest of the 20th century law students. The shared educational experience of these 20th century law students involved a culture dominated not only by a focus on textual material in the form of casebooks, notes and outlines, a culture of independent study, and the predominant use of lecture and Socratic Method in the classroom, but also a fixed linearity of education. The 20th century student read texts, scripted notes by hand, then used class time as a means to develop and affirm critical analysis skills. This was the ideal model for learning set in motion at the American legal education’s inception and students who excelled in this model were rewarded with preferred jobs, including teaching new generations of students the law.

22. Once computers entered the classroom, students began using the Internet, text messaging, etc. to wander away from class.
25. Id.
3. Traditional Class Preparation

Traditional class preparation for students is dominated by a lack of oversight or communication with the teacher. This independence of preparation and lack of feedback concerning its efficacy may be as much an issue of class size as it is a characteristic of the legal education process. First year classes tend to have 50 or more students in them and balloon sometimes to more than 100 students per class. These numbers make feedback and individualized attention difficult, at best.

However, unlike music lessons and other individualized educational endeavors, there is little formative attention given to the preparatory process in legal education. In fact, popular culture advances the mystique, independence, and ambiguity of preparing for a law school class. The lack of transparency of what the teacher expects or wants from students in a class follows the lack of structure or direction provided institutionally to promote effective preparation. In essence, the lack of feedback is lionized, rather than viewed as a disability.

4. Traditional Evaluations

Traditional law school evaluations are summative, arriving after the course work has been completed. Without mechanisms for structured individual or collective review, the traditional exam was given almost entirely as a means of ranking and ordering students, not as an integral part of the learning experience. In fact, the traditional system has little in the way of diagnostic or formative feedback loops.

B. The 21st Century: Adapting to a Global Legal Community

Socio-Economic Globalization

The 21st century phenomenon of globalization results from the unprecedented mobility of goods, services, capital, and ideas around the world. The economy is increasingly internationally interconnected and the modernization of law is inextricably tied to economic globaliza-

27. See, e.g., well-known schools such as Harvard, Stanford, Columbia, the University of Chicago, and Duke.


31. See Globalization of the Economy, supra note 30.
tion.\textsuperscript{32} A bank crisis in one country has ripple effects around the world.\textsuperscript{33} Oil production in one country has numerous implications for oil-producing countries and consuming countries elsewhere.\textsuperscript{34}

Traditional limitations on the geographic scope of law firms are falling away,\textsuperscript{35} and the reality of local practice is diminishing, even as the local business clients engage in the global economy. The arena is expanding, and a lawyer must build a skill set optimal to serving as an actor in the global market. Lawyers must be able to conduct themselves well, to know what are their strengths and weaknesses, and to be aware of their representation in terms of what they bring to the table. All must be sought with global perspective and awareness, for the exclusion of the global context runs the risk of making the profession of law itself marginal or irrelevant.\textsuperscript{36} Increasingly, the legal profession is challenged to serve as a global force, providing structure and process for the complex world of the 21st century.\textsuperscript{37} Legal education should evolve to prepare lawyers to advance with the information era’s intercontinental movement and operate effectively in the modern arena that spans the globe.

Globalization significantly impacts the conceptualization of legal education. The traditional mode of legal learning encouraged law students to specialize after building a general base of knowledge. In part due to globalization, professionals have been pushed to become experts of their respective trades, and lawyers have been pushed to develop extreme expertise in very specific and discrete subject areas as well. Visually, the traditional model of education-to-practice resembles an isosceles triangle, with a wide foundation of education narrowing to a single point. As the individual approaches her tapered area of proficiency, all interaction with and feedback from others becomes noise. The triangular model creates a team of experts that resemble a pie; the many slices representing the individuals who comprise the team. The team is highly competent and skilled in terms of levels of expertise brought to the table. But, there

\textsuperscript{33} One example has been the banking crisis in the United States, with the takeovers of Fannie Mae and Freddy Mac and the fall of Lehman Bros. having a global impact.
\textsuperscript{34} \textsc{Thomas L. Friedman}, \textit{The World is Flat: A Brief History of the 21st Century} (Farrar, Straus and Giroux 1st ed., 2005).
\textsuperscript{37} \textit{Id.}
is little interaction between members of the team where different perspectives on an issue would complement each other instead of independently existing side by side.

A modern, globalization based model of education-to-practice, however, resembles something very different—an hourglass. This hourglass is not a top-to-bottom timer, but instead should be viewed from its foundation up. The broad foundation of knowledge tapers to high competency that gradually reopens to broader skills and competencies. In this broadening top part of the hourglass, the individual is receptive to interaction, feedback, and change from application of skills and integration of new approaches. The modern model would respond to the increasing importance and application of networking and interaction with others. Thus, a team could be composed of highly competent people who are open to feedback and new approaches.
Those who recognize the significance of globalization will adapt domestic structures to keep pace with the movement. Adopting globalization best serves students who have not directly joined the global work force, because different skills are now significant in interacting productively and successfully. Virtual place pertains to remote problem-solving, such that a person on one continent is addressing an issue and allocating resources on another continent. The person is not necessarily operating from an office and the person has not boarded an airplane. Virtual teams involve floating above the physical structure of the world as members of a virtual team who jointly address an issue and then dissolve back into their own spheres. These two virtual elements are becoming the mediums of interaction and transaction by way of technological advances in the 21st century.

The success of any smaller entity depends on its lawyers to have perspectives, experiences, and awareness in competence of global proportion. The 21st century world is characterized by extensive relations, and legal education serves as a catalyst for personal growth and understanding of self in becoming a lawyer. As law firms expand, a lawyer may be in contact with people around the world and travel to offices, conferences, and meetings anywhere from Los Angeles to Geneva to Tokyo. “Corporate homelessness” is coming into play such that large firms are pushing a trend of disassociation from a headquarters city in implementing national and global structures, with which it is possible to be an established institution in each city where business is conducted. In this manner, virtual place and virtual teams can be double-edged as the global society’s form stimulates and amplifies concurrent interdependence and isolation. Law students must examine and understand their limits to avoid being over-extended. Finding that balance is a personal issue to a degree, but is also important that legal education actively incorporates an understanding of the demands of 21st century global practice into the law school curriculum by combining substantive pedagogy with practicums that allow students to explore their role in practice from the first day of their professional education.

40. Id. at 473 (stating “[t]hese global teams were almost unheard of a decade ago, but today they serve as a critical mechanism for integrating information”).
C. 21ST CENTURY STUDENTS

The 21st century brought a new kind of student to the law school. This modern student possesses technical expertise that exceeds most law faculty’s reach and evolves from another world of learning, significantly different from the educational world of their faculty.\footnote{See, e.g., THE NEW MEDIA CONSORTIUM & EDUCAUSE LEARNING INITIATIVE, THE HORIZON REPORT (The New Media Consortium 2008), available at http://www.nmc.org/pdf/2008-Horizon-Report.pdf [hereinafter HORIZON REPORT] (stating the gap between students and faculty in technology continues to widen).} The generational gap resulting from changes in technology and expanded access to information constitutes what may possibly be the most significant gap between faculty and students in the entire tradition of the modern American law school.\footnote{During the American social revolution of the 1960s and 1970s, law faculty led and joined the liberal change movement. “In this period, liberalism [was] supreme at law schools.” JEFFERY TOOBIN, THE NINE: INSIDE THE SECRET WORLD OF THE SUPREME COURT13 (Random House Inc. 2007). The generational gap currently taking place in law schools is not based on social or political differences; rather the modern gap reflects fundamental shifts in how, when, and where people expect to learn.}

The 21st century law student learns in a world of electronic data. The modern student is accustomed to electronic data collections and constant access to materials via the Internet. This student rarely writes in longhand, often reads from the computer screen, and almost never uses textual materials in the course of research. This student creates an individual learning environment in her computer, which is not tied to a physical study space such as the library carrel, but is portable, moveable, and often remotely accessible. When studying, the modern student segments her computer screen to view several different content items simultaneously. Rather than ponder a question for later study; this student is accustomed to the immediate gratification of Wikipedia, Westlaw, LexisNexis, and other source sites that make information on endless topics available through very simple searches.\footnote{Wikipedia, http://www.wikipedia.org (last visited Oct. 6, 2008 12:30 GMT); Westlaw, http://lawschool.westlaw.com (last visited Oct. 6, 2008); Lexis, http://www.lexis.com (last visited Oct. 6, 2008).}

Born to interact remotely through technology, the average law student can be viewed as a “digital native,”\footnote{See Marc Prensky, Listen to the Natives, 63 EDUC. LEADERSHIP 4 (Dec. 2005/Jan. 2006), available at http://www.ascd.org/authors/ed_lead/el200512_prensky.html. I’ve coined the term digital native to refer to today’s students. They are native speakers of technology, fluent in the digital language of computers, video games, and the Internet. I refer to those of us who were not born into the digital world as digital immigrants. We have adopted many aspects of the technology, but just like those who learn another language later in life, we retain an “accent” because we still have one foot in the past. We will read a manual, for example, to understand a program before we think to let the program teach itself. Our accent from the} aware from birth of the limit-
less resource that is the Internet and intrinsically attuned to the instantaneous nature of communication that is possible, often via devices that fit in a pants pocket or a child's palm. “Digital native” students are beyond the stage of infatuation with access to sources distributed globally.\footnote{Id.} This broad scope of access is taken for granted, as globalization is not an external concept but what the student lives and breathes. To educate the student as if he or she was a “digital immigrant,” adapting to new technology, fails to take advantage of the natural intersection between the student and the environment of the 21st century marketplace.\footnote{Id.} It is hence vital that the study of law is presented in the vernacular and modes of the students.

III. CREATING A 21ST CENTURY LEGAL EDUCATION MODEL: INCORPORATING MOBILITY

A. Why Change?

While globalization and the 21st century law students clamor for a departure from traditionalism in legal education, the need for change has been directly recognized by several major commentators in recent times. The recent Carnegie Report on the legal education system, *Educating Lawyers*,\footnote{Carnegie Report, supra note 3.} and the Clinical Legal Association publication, *The Best Practices for Lawyers*,\footnote{Best Practices, supra note 3.} have strongly criticized the traditional restrictive educational path as unduly ineffective. The lack of integrated theory and practice and the dearth of professional training have created a significant disjunctive between law school and lawyering. Traditionalism fosters a growing number of unsatisfied constituencies, from the law students within the process, to the practicing attorneys who hired the students and then had to train them, to the judges before whom the attorneys appear.

B. Proposal: Change the Conceptualization of the Law School Learning Environment

The authors of the Carnegie Report on Legal Education (“Carnegie Report”)\footnote{Carnegie Report, supra note 3.} suggested several structural modifications to American legal education. The authors opined that law schools should integrate theory and practice and be much more pervasive in teaching the role of profes-
This article suggests a second structural modification related to law school learning environments. These environments are the places and circumstances in which students learn. While the 20th century student would learn in class and in the library, the 21st century student can learn at a huge distance from school and through different media as well. This article suggests that modifying learning environments is in keeping with the Carnegie Report’s recommendations and can have a significant impact on legal education in the future.

1. The 21st Century Learning Environment

A learning environment is the context in which students learn. The environment can influence both the quantity and quality of learning. The environment can further the specific aims of a particular pedagogy, such as role-playing and simulation, or simply better the retention levels of students through repetition or neuropsychological assistance, such as using acronyms or studying in a way that works best for the individual. If law students are to learn theory, practice, and professionalism as suggested by the Carnegie Report, the contexts of their learning should reflect and maximize these goals.

New learning environments can be created by using available and accessible technology or by refocusing the use of technology from an administrative aid for faculty to a tool for teaching. This new technology connects better to 21st century law students and their modes of learning, including their expectations about where learning can occur. Technology is a tool to develop strong learning environments within and outside the classroom. These new learning environments provide an opportunity

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51. Id. at 79.
52. Id.
53. Teach-nology.com, Teacher Glossary of Terms in Teaching, http://www.teach-nology.com/glossary/terms/l/ (last visited Oct. 7, 2008) [hereinafter Teacher Glossary] (defining learning environment as “[t]he place and setting where learning occurs; it is not limited to a physical classroom and includes the characteristics of the setting.”).
54. See, e.g., MARYELLEN WEIMER, LEARNER-CENTERED TEACHING: FIVE KEY CHANGES TO PRACTICE (John Wiley and Sons 2002); Anthony S. Niedwiecki, Lawyers and Learning: A Metacognitive Approach to Legal Education, 13 WIDENER L. REV. 33 (2006). In addition, learners have been viewed as having dominant learning preferences, called styles. Three characteristic styles are visual, meaning seen, auditory, meaning heard, and kinesthetic, meaning tactile. Understanding the role of learning styles in the educational process allows “studying in a way that works best for the individual.”
55. See Judith Grunert & Robert M. Diamond, The Course Syllabus: A Learning Centered Approach (Anker Publishing Com. 1997). Of course, learning environments, as well as the substance of a course, can be constructed by and reflected in the course syllabus. This tool is often overlooked.
for both enhanced substantive learning and better use of new methods of learning. For example, technology can assist students with the quality of their note-taking, a learning environment that studies link to achievement and recall.58

Analyzing the perspectives of the modern law student allows faculty to adapt learning environments to the processing of a new generation.59 The goal is not to pander educational goals to modern gadgetry and gimmickry. Rather, updating the portrait of the typical law student allows the institutions and faculty to refine the role of teaching and learning in the modern law school and create learning environments both within and without the actual law school, which better equip law students for continued learning and professional practice in the 21st century.60

The computer itself creates a new learning environment for the modern student. This new environment is not only an individual environment but extends to the classroom when students bring computers into classrooms, particularly when those classrooms have wireless access to the Internet. Also, with the advent of other technologies, such as blogging and podcasting, the student has access to multiple portable learning environments.

2. Flexibility Inside the Classroom

There exists an uneasy interface between written casebooks and case analysis, on the one hand, and new technology on the other. One illustration is student use of laptop computers in the classroom.61 Many faculty members have opted to ban laptop computers from their classrooms reasoning that computer use creates a distraction for law students.62 However, this position assumes the modern student learns or


59. Alverno Coll. Staff, Self Assessment At Alverno College (G. Loacher ed, Alverno Coll. Pub. 2000) [hereinafter Self Assessment]. This analysis of law student perspectives can be done through self assessments as well as ones that are faculty-initiated.

60. Carol Gilligan, In A Different Voice 2 (Harvard Univ. Press 1982). These student perspectives can be described in terms of narratives. The utility of the narrative as a learning tool is that "the way people talk about their lives is of significance, that the language they use and connections they make reveal the world that they see and in which they act." Id.

61. See AALS Annual Meeting, Reassessing Our Roles As Scholars and Educators in Light of Change, Jan. 2-6, 2008, NY, NY, available at http://www.aals.org/am2008/index.html. Faculty discussions on student laptop use have reached a decibel sufficient to generate a special place on the agenda of the January 2008 AALS meeting agenda. One of the foci of the meeting was whether there "may be potential through electronic media for law faculty to have more influence on the law than we now have by disseminating our expertise and scholarship primarily through articles, books or public testimony." Id.

should learn in the traditional method. Another approach is to view the classroom as a new, wired learning environment that offers more, not less, to the faculty and students.

3. Student Computer Use in the Classroom Learning Environment

In one class, a fifteen student seminar, the student sitting next to me spent the better part of the entire semester engaged in various sport web-sites, checking scores and sometimes actually placing bets in class. Since there is no stigma on this type of surfing during class, my fellow student made no attempt to hide these activities from me or from anyone. In the same small class, two students sitting next to each other engaged in an instant message conversation with each other throughout the class, resulting at times in outbursts of audible laughter, sighs, and deep breaths of disgust. . . . Although some were more discreet, a simple walk around the table showed fifteen screens of content unrelated to the course.63

This description of the wired classroom is apt to most faculty experience at American law schools with technically modernized facilities. If faculty know that the student yields or splits his or her screen to share non-course and course content, perhaps faculty should endeavor to fill all the windows. When teaching the substance of a case, faculty can engage students in their world by calling on students to access related cases on Westlaw and LexisNexis, review a history or pop culture reference on Wikipedia, or seek out some detail related to the case or the notes on the Internet.64 Also, with simple projection technology and classroom Internet access, faculty can demonstrate the relationship between content by projecting their own working outline on a split screen that also includes the case itself and other content related to the course, such as an analytical map.

Student use of the wired laptop in the classroom promotes multi-tasking; however multi-tasking is not necessarily an enemy of learning. Students are not necessarily learning less when performing multiple tasks. Recent brain research has demonstrated that multi-tasking can affect a person’s ability to apply what is learned to a later task.65 The Poldrack Labs at University of California at Irvine conducted a neuroimaging study (“Poldrack study”), which demonstrated through

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63. Catherine Dunham, Stretching Towards the Future: A View of Laptop Computers in the Classroom from Both Sides of the Screen, LAW TEACHER, Spring 2007, at 1.
64. For example, when struggling to make Pennoyer v. Neff, 95 U.S. 714 (1878) relevant, students can search the history of the parties and the class can join in a lively discussion of Neff as the disbarred lawyer and bigamist to other discussions of quasi in rem jurisdiction.
brain imaging and “mapping” that the presence of a demanding secondary task during learning modulates the degree to which an individual solves the problem. The Poldrack study used fourteen human subjects aged 18-45 years with no existing neural illness or deficiency. Subjects were taught to perform a weather predicting task then asked to perform the task while recording the frequency of high and low tones heard through headphones by pressing a button with the index finger, simulating a common multi-tasking scenario involving texting. The study showed that performance of the secondary task, recording the tones, impaired the subject’s acquisition of flexible knowledge. Thus, multi-task situations may not reduce accuracy in recording information but can reduce the amount an individual understands the content of material.

“Even if distraction does not decrease the overall level of learning, it can result in the acquisition of knowledge that can be applied less flexibly in new situations.”

Although the Poldrack study suggests the picture of the proficient multi-tasker may be a fiction, it also supports the thesis that using manipulations that enhance declarative learning, such as decreasing outside stimuli and enhancing study time, will enhance performance. By directing the student’s multi-tasking world in the classroom to content areas that relate to the course, rather than sports betting, faculty are arguably decreasing, not enhancing, outside stimuli. Therefore, the risks of learning being undermined by split screen multi-tasking are reduced if faculty work within the wired classroom learning environment to adapt multiple levels of content to the course. Law faculty can use technology itself and the modern student’s comfort with technology to expand the two-dimensional paper world of the classroom into a three dimensional learning environment.

4. **Live Blogging in the Classroom**

Technology in the classroom has generated a new meta-classroom environment through live blogging. Professor Laura Appleman from the Willamette University School of Law shared her experiences with student live blogging in an October 2, 2007 posting on “Concurring Opinions,” a law faculty blog. A first year student experimented with live blogging in Professor Appleman’s torts class pursuant to the professor’s permission. The student created a blog, which facilitated an in-class dis-

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66. *Id.*
67. *Id.*
68. *Id.* Flexible application of knowledge is a highly regarded subcomponent of the family of legal thinking skills.
69. *Id.*
course between the blogging student and others about the class while the class was going on. On the live blog, students can comment on the professor and the class, ask questions, and seek clarification from each other while the class is in session. In essence, the live class blog is the online equivalent of a student discussion occurring during class.

This torts live blog raises the question of how this new micro learning environment affects the classroom learning environment. Will allowing live blogging in class engage students in the class, assuming their conversation relates to the class, or will it offer an additional distraction to students whose full attention should be focused on the class? In any event, when evaluating the proper response to a student's request to live blog, law faculty should consider the perspective of the modern law student to determine the impact of live content-based conversation on the classroom learning environment.

5. Portability Outside the Classroom

Not only has the classroom environment changed, but the environment outside the classroom where students study and learn has changed, as well. The outside learning environment, a student's individual learning environment, can be more important than the classroom learning environment because of the amount of learning that can happen through individual learning. Furthermore, the modern student learns within a portable individual learning environment. Student learning is no longer a function of place; rather it is more a function of access. Whereas the 20th century law student competed for a carrel in the library or staked out a physical space at home or at school as the location of study and thought, the 21st century law student carries this place with him in the form of a laptop computer with Internet access. Although he may prefer a certain physical location for study, he can and does study and learn everywhere the computer goes.

In the past, law faculty have had limited opportunities to influence the student's individual learning environment. As such, students have traditionally relied heavily on outside sources, including commercial outlines and study materials. This reliance permits the student to substitute the analytical and critical judgment of an unknown academic for the guidance of the student's professor. In an ideal teaching situation, law faculty would be able to construct effective learning environments inside and outside the classroom. Technology offers at least three ways for law faculty to imprint methods of study and learning onto the student's individual learning environment: interactive outlining; electronic web courses; and podcasting.
6. Interactive Outlining

Interactive outlining is predicated on the use of a wiki, which allows Internet users to alter and modify prior entries. It is a collaborative-based methodology, popularized by the online encyclopedia known as "Wikipedia." In a law context, outlines are usually constructed by individual or small groups of students, utilized solely by those in possession of these materials. Interactive outlining, utilizing a wiki, permits students and faculty to interact with each other in organizing and creating course outlines. This idea permits faculty observation and interaction outside of the classroom and even outside of "office hours," facilitating a mobile view of the learning process.

7. Electronic Web Courses

Electronic web courses are a fixture in higher education. The real issue with electronic courses lies in whether the technology is being used to deliver substance and create an effective learning environment outside the traditional classroom.

Electronic web courses, such as Blackboard and TWEN, have migrated to legal education from undergraduate education where a less paper driven approach to learning is more commonplace, particularly in some disciplines. Since the student migrates to law school from the undergraduate environment, the modern law student is often accustomed to accessing and using a course website. Law faculty can take advantage of this ready group by designing the web course to reflect a preferred organization for the class. For example, the content areas of most web course products allow for the posting of Word documents, .pdf files, Excel files, and PowerPoint presentations. If course content is posted electronically in a manner that demonstrates strong analytical organization of a given topic, the student is provided with a bank of course materials organized in a manner that demonstrates the course's

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71. Wikipedia, Wiki, http://en.wikipedia.org/wiki/Wiki (as of Oct. 6, 2008, 18:00 GMT) [hereinafter Wiki] (defining wiki as "a page or collection of Web pages designed to enable anyone (excluding blocked or banned users) who accesses it to contribute or modify content").


73. The Elon University School of Law’s Center for Engaged Learning is creating an interactive outlining site to promote collaborative learning as well as accuracy in outlining. See also The United Kingdom Center for Legal Education, http://www.ukcle.ac.uk/index.html, which is experimenting with a wiki for faculty participants.


75. See, e.g., the University of Phoenix, supra note 8.
To encourage students to use a web course, students should be accorded access to the course as a way of obtaining different and useful materials. The professor can pre-select links to certain CALI\textsuperscript{77} courses or other study materials and load those links and materials onto the web course, thus using the web course to direct students to preferable study sources. Also, most web course products allow for the sharing of materials among course members and provide discussion boards and e-mail groups for communication among members.\textsuperscript{78} By directing students to the web course for materials and communication related to the class, the faculty member is designing a new learning environment for students to access while working individually. If questions and answers are posted on a discussion board within the course, students will access that board for information, benefiting from other students’ questions. The web course can direct students through internal links so the professor can direct a student to another place within the course, perhaps a posted document or presentation, in response to a question. Although this communication can happen individually between the professor and student, if the professor directs communication through the course discussion board, all students benefit from the discussion. And, with consistent use, the web course can become the portable learning environment for the class, available to students anytime they study individually.

The real utility of electronic web courses is to redistribute the focus of a class. The class can be restructured from containing all the substantive information to perhaps containing only a substantial amount of the information, directing some information to the web course and learning environments outside the classroom. Also, the electronic course can be used as a tool to reaffirm the points in class through the posting of review problems and other materials, thus sustaining the substantive content of the class as the student moves from the classroom learning environment to the individual learning environment.

8. Podcasting: The Completely Portable Learning Environment

Podcasts are expanding the student's outside learning environment

\textsuperscript{76} Electronic folders on a web course can be set up to organize content related to a course topic, i.e. subject matter jurisdiction. The subject matter jurisdiction folder can contain all materials that would fit under that heading in an outline even if related topics are not covered chronologically in the course. If the professor chooses to discuss supplemental jurisdiction at the end of the course in connection with joinder, she could elect to include the supplemental jurisdiction materials in a folder with content on subject matter jurisdiction to demonstrate the link between jurisdictional topics.


\textsuperscript{78} See Blackboard, \textit{supra} note 8
by adding mobility. Mobility is a unique characteristic of podcasting and speaks directly to the attributes of the modern law student. Podcasts have been developed into two teaching uses: the audio and video recording of course lectures and the audio recording of supplemental course material. The most common faculty use, audio and video recording of lectures, has been found to be less useful to students. When studied, undergraduate students shunned lecture podcasting for several reasons.

First, students did not respond well to video podcasting of lectures, preferring the audio-only format since audio podcasting allowed students to access the podcast while performing a mobile task. Also, the students correctly noted that if the original lecture was not beneficial, then the recording provides nothing extra for the student. All technology conveniences aside, if the classroom environment does not promote learning, then the podcast of the lecture fails to enable students to create a better individual learning environment.

Another commonly noted shortcoming of lecture podcasts is the inability to hear questions from students on the podcast or any discussion that takes place in the lecture hall. Thus, lecture podcasting may be of very little use in a law class that regularly employs the Socratic Method of any type of group discussion. Some faculty fear that podcasting lectures will reduce class attendance. The University of Michigan study (“Michigan study”) found only a small percentage (7.5%) of students used the podcasts as a substitute for class attendance. However, the Michigan study also found that the majority of students use a lecture podcast at home, rather than in a mobile environment or with a portable device. Therefore, lecture podcasting is not adding anything to the indi-
vidual learning environment other than a repeat of the actual class.

The real potential of podcasting is best achieved by developing podcasts of supplementary materials designed specifically for the format of the class.89 Using podcasts as supplemental materials has a much better track record of positively influencing student learning outcomes and student performance.90 Supplemental podcasts are often more thoughtfully approached, designed with clear educational goals in mind, and created specifically to take advantage of the podcast format. As supplements, podcasts can be used to restructure class time. A successful format for supplement podcasts interpret one or two important class topics and offer questions for student analysis.91 This class sensitive format allows the student an opportunity to supplement his or her own learning environment based on the goals for learning outcomes set by the instructor. Furthermore, the Michigan study found supplemental material podcasts are more commonly accessed on the iPod or other portable medium.92 This preferential choice of medium supports the use of supplemental material podcasts as tools to enhance the individual’s learning environment.

Supplemental material podcasts can also be used to develop listening as a technical skill. In a study involving students at an American medical school, instructors used audio podcasts to supplement other instruction on the detection of heart murmurs in patients.93 Recordings of classical examples of heart murmurs were interspersed with educational materials then made available to students in MP3 format.94 The study found that medical students who listened to approximately 500 repetitions of each type of murmur fared almost three times better on post tests than students who had only traditional instruction.95 The podcast supplemental materials allowed medical students to develop listening as a technical skill.96 In legal education, supplemental podcasts could be used to aid students in developing key lawyer skills, such as counseling,

89. Deal, supra note 80.
92. Deal, supra note 80.
93. Barret, supra note 90, at 73-75.
94. Id.
95. Id.
96. Id.
listening, and communicating, basic tenets of traditional skills instruction.

“The true value of podcasting is its potential not necessarily to educate better but to educate further.”97 Use of a podcast as a supplemental learning material offers faculty the opportunity to connect students to material through another venue. Also, audio podcasting meets the needs of different learning styles. For example, an audio podcast can aid a primarily aural learner, thus providing that student a unique means to create his or her own learning environment.

If faculty members focus on an educational goal and then look to technology as a means to achieve the goal, the technology becomes a tool for learning rather than a modern gimmick. The decision to use a podcast or web course for certain material is no different than deciding whether to orally describe a concept or write a chart on the board. At its essence, the goal is education, not technology education. If faculty allow the technology generation gap to inhibit good instruction, faculty are turning a blind eye to new mediums that better connect law students to each other, the profession, and the world.

IV. IMPLICATIONS OF IMPLEMENTING PORTABLE LEARNING FOR THE 21ST CENTURY LAW SCHOOL

The re-conceptualization of a mobile legal education process has many implications for the overall enterprise. These implications alter not just the immediate classroom substance or dynamic, but foundational structures, power distribution, and ideas about learning and objectives.

A. FOUNDATIONAL STRUCTURES

The deep structural issue raised by portable learning includes a basic question about what ought to be the subject of face-to-face education. In particular, it creates a burden of proof question – what justifies including some aspects of learning in a visible, face-to-face context and excluding other aspects of the learning process to portable locations? That is to say, what types of learning benefit from face-to-face immediacy? When viewing piano lessons or language classes, each can be done online. In law schools, online courses are becoming common.98 At Concord University in California, the entire legal education is online.99 These forms of distance learning include both synchronous and asynchronous

98. See, e.g., Cornell University Law School’s popular online survey courses.
99. Concord University, supra note 8.
forms of interaction. If asynchronous education is considered as valuable a process as synchronous classes, then much of the legal education process can be transferred to such a format. The assumption that face-to-face classes are better must be justified and articulated with greater persuasiveness in light of the ease and benefits from regular student postings, especially those which permit instantaneous evaluation and feedback.

B. Maximizing the Classroom

A correlative issue is how to maximize the legal education classroom, incorporating mobility inside the room and not just on the outside. Maximizing the classroom has a completely different meaning when it refers to incorporating technology and student ideas of learning, rather than the strict linear construct of the traditional legal education.

While many teachers now use PowerPoint slides, graphics and videos, this notion of maximization is integrative in theory as well as practice. The pivotal questions becomes, what kinds of integration work best, and why?

C. Power Shifts

It is always difficult to shift current and long-entrenched power relationships. This recognition of mobility does exactly that, however, taking some control away from the teacher and providing students with more choice – and more responsibility – over their educations. Students have to schedule listening to podcasts and participating in the course outside of class in a different way than simply “studying” for a course. With required online posts, the nature of a course changes and teachers are less “sages” dispensing information than “coaches” providing critiques and feedback, as well as providing ways to improve skills. The idea of change can be threatening in and of itself. Promoting portable learning to law professors raised in a traditional 20th century environment will be difficult and sometimes insuperable. The notion of adaptation often conflicts with the idea of stare decisis, controlling precedent – where looking to the past often provides important keys to the future. This concept is modified and reconstructed with the infusion of 21st century ideas and students.

D. Making Learning Visible Outside of Class

Perhaps the most salient implication of considering portability in the learning process is the recognition that learning outside the classroom can be interactive, not just between students, but between teachers and students. This kind of interactivity makes the learning that occurs outside of a class visible to the teacher and a more significant part of the
course. Interactivity allows teachers to observe, comment on and correct study techniques and habits. Teachers also can create feedback loops and formative assessments that both facilitate the learning of new material and enhance the embedding of old material.

V. CONCLUSION

Advances in technology provide opportunities for law schools to meet the changing demands of the 21st century, particularly regarding the new ways students learn. However, these technological opportunities do not mean simply supplementing the traditional orthodoxy of casebooks, Socratic Method, and physically studying in a law library. Instead, law schools should consciously reconstruct the learning environments within and outside the classroom. Within the classroom, technology could be integrated into the learning process, using such tools as the Internet, PowerPoint, and other sources. Student learning outside the classroom could be similarly augmented and reaffirmed. Professors could influence the learning environments outside the classroom through the use of electronic platforms, such as TWEN and Blackboard and mobile environments, such as those created by podcasts, which could be downloaded onto an iPod.

Intentionally addressing learning environments offers law schools the institutional opportunity to implement some of the ideas found in the Carnegie and Best Practices Reports without a total overhaul of the existing system. The redesigned learning environments could provide an effective and efficient mechanism for revising well-entrenched practices.

While downsides exist — students will inevitably surf the Web in a classroom if the opportunity presents itself — the documented multi-tasking nature of 21st century students does not necessarily diminish the learning process. To the contrary, resisting 21st century demands likely will prove futile and counterproductive in the long-term.
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