

## At the Lectern

# Blended Learning: A Flipped Classroom Experiment

William R. Slomanson

### Introduction

Those who thumb the pages of this journal constantly assess why they teach the way they do. They tend not to embrace talismanic explanations of what does and does not work.<sup>1</sup> They are instead hunter-gatherers who pursue the many paths leading to what works for them. Perhaps the best they can do is to constantly assess, and reassess, their understanding of how their students learn,<sup>2</sup> and what constitutes effective teaching.<sup>3</sup>

This essay thus addresses one academy member's seismic shift, after 36 years of traditional Socratic and Problem Method teaching, to a blended learning environment. I sensed that it was time to either retire, or pursue more active learning techniques.<sup>4</sup> My first step on this journey was to articulate learning

**William R. Slomanson** is Professor of Law, Thomas Jefferson School of Law. This is a revised version of the author's presentation at American University's April 2014 Igniting Law Teaching conference, viewable at <http://legaledweb.com>. I thank John Snay, TJSJL Multimedia Specialist, for his enduring support with the video segment of my flipped class.

1. Compare ROY STUCKEY AND OTHERS, BEST PRACTICES FOR LEGAL EDUCATION: A VISION AND A ROAD MAP 98 (2007), [http://www.cleaweb.org/Resources/Documents/best\\_practices-full.pdf](http://www.cleaweb.org/Resources/Documents/best_practices-full.pdf), with Michael T. Gibson, *A Critique of Best Practices in Legal Education: Five Things All Law Professors Should Know*, 42 U. BALT. L. REV. 1 (2012) (questioning the attack on the Socratic Method at page 30, and raising problems with the recommended Problem Method at page 61).
2. See Alice M. Thomas, *Laying the Foundation for Better Student Learning in the Twenty-First Century: Incorporating an Integrated Theory of Legal Education into Doctrinal Pedagogy*, 6 WIDENER L. SYMP. J. 49 (2000).
3. See Paul Bateman, *Toward Diversity in Teaching Methods in Law Schools: Five Suggestions from the Back Row*, 17 QUINNIAC L. REV. 397 (1997).
4. See, e.g., L. DEE FINK, CREATING SIGNIFICANT LEARNING EXPERIENCES: AN INTEGRATED APPROACH TO DESIGNING COLLEGE COURSES (2003) (discussing information and ideas, experience, and reflective dialogue) and Peter Lorain, *Teaching that Emphasizes Active Engagement: Improving Learning for Middle School Students*, NATIONAL EDUCATION ASSOCIATION, <http://www.nea.org/tools/16708.htm> (last visited Jan. 16, 2014).

outcomes<sup>5</sup> and assessment techniques<sup>6</sup> for my students. We will all be doing that in the near future.<sup>7</sup>

### What is Blended Learning?

The relevant classroom formats are face-to-face, virtual, and blended. The traditional classroom environment is face-to-face only. The virtual classroom is positioned near the other end of this spectrum. Education is delivered totally online, as with Concord Law School.<sup>8</sup> Legal educators should take notice that undergraduate massive open online courses (MOOCs) are being streamed to thousands—make that tens of thousands—of students across the country.<sup>9</sup> A blended classroom, by comparison, offers both face-to-face and virtual elements. It will become increasingly attractive to administrators seeking ways to cut delivery costs, while making graduate education available to increasingly debt-averse students.<sup>10</sup>

Tackling a new pedagogical approach requires an assessment of the effectiveness of each of the above formats. A U.S. Department of Education empirical review is quite telling—except to those who believe that studies outside of legal education are suspect. The major findings in its meta-analysis of 45 empirical studies were that students in online learning courses performed better than those receiving exclusively face-to-face instruction.<sup>11</sup> Blended learning, which combines online and face-to-face elements, yielded better

5. Learning Outcomes, available at [http://www.tjssl.edu/slomansonb/CP\\_I\\_Learning\\_Outcomes.docx](http://www.tjssl.edu/slomansonb/CP_I_Learning_Outcomes.docx).
6. Assessment Chart, available at [http://www.tjssl.edu/slomansonb/CP\\_Assessment Chart.docx](http://www.tjssl.edu/slomansonb/CP_Assessment Chart.docx).
7. A.B.A. STANDARDS AND RULES OF PROC. FOR APPROVAL OF LAW SCH., Draft Standard 302, Learning Outcomes (2013), <http://www.cleaweb.org/Resources/Documents/Proposed%20Chapter%203%20changes.pdf> (last visited Apr. 25, 2014).
8. See CONCORD LAW SCHOOL, [http://ask.concordlawschool.edu/lawschool\\_landing?source=915471](http://ask.concordlawschool.edu/lawschool_landing?source=915471) (last visited Apr. 25, 2014).
9. For example, Coursera has enrolled 5 million students in its free online courses. It announced a partnership with the U.S. government to create learning hubs. Students will have Internet access to free courses supplemented by weekly in-person class discussions with local teachers or facilitators. Tamar Lewin, *U.S. Plans Global Network of Free Online Courses*, N.Y. TIMES (Oct. 31, 2013), <http://www.nytimes.com/2013/11/01/education/us-plans-global-network-of-free-online-courses.html>. For a detailed list of MOOC courses see MOOC LIST, <http://www.mooc-list.com> (last visited Apr. 25, 2014).
10. As one professor commented, over two decades ago: “Law schools have been much slower than other professional and graduate schools to adopt computer-augmented teaching methods, perhaps because little evidence has ever been presented to law teachers that the necessary expense and effort can be justified by an improvement in student learning.” Paul F. Teich, *How Effective Is Computer-Assisted Instruction? An Evaluation for Legal Educators*, 41 J. LEGAL EDUC. 489, 489 (1991).
11. The D.O.E.’s work product is succinctly analyzed in BARBARA MEANS ET AL., EVALUATION OF EVIDENCE-BASED PRACTICES IN ONLINE LEARNING: A META-ANALYSIS AND REVIEW OF ONLINE LEARNING STUDIES (rev. Sept. 2010), <http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>.

performance than purely online instruction. Those studies also revealed an average of 35 percent stronger learning outcomes for students taught in a blended format, as opposed to just face-to-face teaching.<sup>12</sup>

### What is a Flipped Class?

A simplified description of a “flipped” classroom is that: (a) the professor’s lecture is delivered at home and (b) the student’s homework is done in class.<sup>13</sup> Actually, there are many ways to flip a class; Capital University Professor Angela Upchurch has articulated a useful description.<sup>14</sup> In the traditional classroom, professors spend the majority of their time dispensing information. The students spend the majority of their class time taking notes.<sup>15</sup> Professors have little time to help them connect the analytical dots. In the flipped model, new content is presented in online, out-of-class videos. Class time may then focus on activities enhancing the overall learning environment.

You might opt to merely place your toes in the water, flipping just a few difficult classes or concepts. I, on the other hand, dove in headfirst—by flipping an entire course (Civil Procedure). I was reaching for a splashy pedagogical renewal. What follows is a bird’s-eye view of one academy member’s launch of a flipped classroom experiment. This essay will transport you into my flipped classroom. You can then decide whether this alternative could lead to renewing your pedagogical persona. But note that if we are to remain relevant we must embrace change.

### Flipping Factors

#### *Misconceptions*

I used to think that communicating with a dozen students in one class constituted a successful class. While first exploring the flipped class option, I realized that I had not necessarily reached the other 60 students that day. I was seeking a way to reverse that ritual. I had erroneously presumed that all would learn, if only I was well-prepared and they were good students. But turning the traditional homework-lecture approach upside down appeared to be a fix worth exploring.<sup>16</sup> Now, each student can begin the learning process,

12. Further detail is available in Todd E. Pettys, *The Analytic Classroom*, 60 *BUFF. L. REV.* 1255, 1304-05 (2012).

13. See JONATHAN BERGMANN & AARON SAMS, *FLIP YOUR CLASSROOM: REACH EVERY STUDENT EVERY DAY* 13 (2012) [hereinafter *Reach Every Student*].

14. *Flipping the Law School Classroom: Optimizing the Law School Classroom*, Hybrid Law Teaching Session 5 Workshops, INST. LAW TEACHING AND LEARNING (June 2013), summary available at <http://lawteaching.org/conferences/2013/workshops/session5.php#session-a>.

15. One might quip that the teacher’s notes become the student’s notes without going through the mind of either.

16. I first learned about the flipped classroom from a newspaper story about a San Diego high school teacher’s success. It caused me to wonder: why had I always limited my pedagogical reading to only *legal* resources?

at his or her own pace, by viewing my lecture essentials at home. That serves the individual needs of all class members. For decades, I had targeted that mythical swath that supposedly lies somewhere in the middle. But I was clueless about what percentage of the class was clueless. I now reach many more, especially during my multiple in-class “work breaks” (described below).

University of Utah Professors Aaron Dewald and Debora Threedy address some other misperceptions.<sup>17</sup> The first is that flipping a class means long hours in front of camera. But actually no one disputes that the videos should be short. The other common misperception is that one must possess Herculean computer skills to get a flipped class up and running. Yet, one can load previously honed work onto a variety of user-friendly platforms (identified below).

Don’t be concerned, lest the video component of a flipped class run afoul of the ABA Distance Learning Standards.<sup>18</sup> The trigger for those standards is a class where more than one-third of the course instruction occurs outside of the classroom.<sup>19</sup>

### *Videos*

I designed my videos to replace much of the traditional inter-case textbook reading. That fueled student buy in—which would not have occurred had I assigned videos in addition to such reading.

When I finished my first small batch of videos, I had my teaching assistant review them. For students on the receiving end of this innovation, this would be their first insight into the flipped class. I would not have a second chance to make a first impression.

My very first video was way too long—about 16 minutes. It was bogged down with jurisdictional sidebars. Lengthy videos can also unwittingly double the students’ workload without necessarily providing value added.<sup>20</sup> By my third redo, I reduced Video #1 to my goal of 10 minutes maximum. While my assistant ultimately said that my videos were all “fabulous,” I wasn’t yet

17. Considerations in Designing and Implementing a Hybrid Course in Legal Education, Hybrid Law Teaching Session 5 Workshops, Inst. Law Teaching and Learning (June 2013), summary *available at* <http://lawteaching.org/conferences/2013/workshops/session5.php#session-b>.
18. *See* ABA STANDARDS & RULES OF PROC. FOR APPROVAL OF LAW SCH., Standard 306(d)-(e), Interpretation 306-3 (2013-2014), *available at* [http://www.americanbar.org/groups/legal\\_education/resources/standards.html](http://www.americanbar.org/groups/legal_education/resources/standards.html).
19. A course that is *exclusively* online would be subject to the A.B.A.’s distant learning standards. One example would be an electronic motions course, where the student and professor exchange e-mails and attachments, but never meet on campus. *See, e.g.*, William R. Slomanson, *Electronic Lawyering and the Academy*, 48 J. LEGAL EDUC. 216 (1998) (motions submitted by e-mail, in optional unit tacked onto 2-unit doctrinal class).
20. *See, e.g.*, Justin Reich, *Will Flipped Classrooms Reveal the Lack of Value in Assigned Work?*, EDUC. WK., [http://blogs.edweek.org/edweek/edtechresearcher/2013/09/will\\_flipped\\_classrooms\\_reveal\\_the\\_lack\\_of\\_value\\_of\\_assigned\\_work.html](http://blogs.edweek.org/edweek/edtechresearcher/2013/09/will_flipped_classrooms_reveal_the_lack_of_value_of_assigned_work.html) (Sept. 19, 2013, 22:15).

convinced. When I stretch the school's one-semester 4-unit procedure course into a 6-unit year-long course, I may then merit that accolade.

There was no doubt, however, that I had geared up to move my teaching needle from neutral to overdrive. In my traditional classroom, students had always been trapped between my faster-than-lightening lecture mode, and their incomplete note-taking. Now, my students can digest the essential concepts at their own speed—in other words, they can pause and rewind the professor. As stated by Michel Horn, co-founder of the San Francisco think tank, the Clayton Christensen Institute for Disruptive Innovation: “Moving the delivery of basic content instruction online gives students the opportunity to hit rewind and view again a section they don't understand or fast-forward through material they have already mastered. Students decide what to watch and when. Such options give them greater ownership over their learning.”<sup>21</sup>

During my filming debut, I was not as prepared as anticipated. The flipped class experts recommend folksy chats with their students. But before my opening act,<sup>22</sup> I had decided to create a bullet point checklist like we all did when preparing for depositions. I thus approached each (short) video production, as if preparing for a conference presentation. There's no doubt that the positive video feedback I now receive would never have occurred had I decided to “wing it.”

I chose not to insert charts and diagrams into my videos. Positioning those devices on other course web pages facilitated my quest for video simplicity.<sup>23</sup> Regardless of placement, we should all consider the excellent advice of Adam Rosman based on his experience as a trial attorney. “Law schools would do well to incorporate instruction in visual presentation” as many trial practice professors do to convey complex ideas.<sup>24</sup> One might add that merely inserting a question or two at the end of the video provides some form of assessment. For example, if a student cannot answer the inserted questions, he could be directed to review the video.

I realized quickly that some seemingly minor details could have tripped me up. For instance, I generally avoided referencing key cases so my videos would be timeless rather than rendered obsolete by new cases addressing old topics. When my taping was completed, I kept my handwritten bullet points handy. I could then conveniently determine whether some supposedly fresh theme—as I prepared for class—had already been covered in the relevant video (without having to spot check the video content).

21. Michael B. Horn, *The Transformational Potential of Flipped Classrooms*, EDUC. NEXT, Summer 2013, at 78, [http://educationnext.org/files/ednext\\_XIII\\_3\\_whatnext.pdf](http://educationnext.org/files/ednext_XIII_3_whatnext.pdf).

22. I use 21 videos, in a 28 class (4-unit doctrinal first-semester) civil procedure course.

23. I created my own e-coursebook. But one can deliver such content via the traditional methods—or incorporate them into videos.

24. Adam L. Rosman, *Visualizing the Law: Using Charts, Diagrams, and Other Images to Improve Legal Briefs*, 63 J. LEGAL EDUC. 70, 70 (2013).

I belatedly chose not to require students to ask me questions about the videos at the outset of class—a form of reverse Socratic Method. While the experts recommend quizzing them to ensure they watched the video,<sup>25</sup> I decided that my students are adults and as such, were either on board or not. Adding the requirement that they *prove* they watched the assigned video was too closely allied with Professor Kingfield’s Socratic Method.<sup>26</sup> Having led the horses to water, I do not want to drown them. Yet my instincts dictate that I revisit this decision.

### *Outlining*

Student outlining is a key cog in my blended learning wheel. I’ve created this bridge and this is how I expect them to walk it. Students (particularly 1Ls) tell me that my ten-minute videos take 30 to 45 minutes to outline. I want them to outline each video before class, to facilitate their long-term memory,<sup>27</sup> improve class preparedness, avoid cramming it all in at the end, and produce an outline written in their own words.<sup>28</sup> Most students modify their initial video-based outline by incorporating the other course components on the fly.

A survey revealed the four corners of my film debut. Most students would first sample the video on a coffee break; then do home work; then return to the video to outline it, before or after class. Like *House of Cards*, Season 2, many then binge watched my entire season for the final exam.

### *Laptops*

A laptop is not critical to the flipped class. In fact, a number of professors have banned laptops, believing they have a negative impact on note taking, learning, class participation, and overall engagement. Most of us know professors who have taken this position. I refer them to Temple University’s Professor Kristen Murray who has authoritatively negated those assumptions.<sup>29</sup>

25. Reach Every Student, *supra* note 13.
26. Whether to employ a flipped classroom and whether to use the Socratic Method are discrete decisions.
27. Students “need to develop ways to easily retrieve knowledge from their long-term memories for use in their short-term memories where thinking is done.” Scott Fruehwald, *The Biggest Problem in Legal Education: The Mismatch Between How Law Schools Teach Their Students and What Lawyers Do in Practice*, LAW PROFESSOR BLOGS NETWORK, [http://lawprofessors.typepad.com/legal\\_skills/2013/05/the-biggest-problem-in-legal-education-the-mismatch-between-how-law-schools-teach-their-students-and.html](http://lawprofessors.typepad.com/legal_skills/2013/05/the-biggest-problem-in-legal-education-the-mismatch-between-how-law-schools-teach-their-students-and.html) (May 5, 2013).
28. See Cassandra L. Hill, *Peer Editing: A Comprehensive Pedagogical Approach to Maximize Assessment Opportunities, Integrate Collaborative Learning, and Achieve Desired Outcomes*, 11 NEV. L. J. 667, 705 (2011) (stressing the importance of writing experiences designed to foster “practice ready” prose).
29. See Kristen E. Murray, *Let Them Use Laptops: Debunking the Assumptions Underlying the Debate over Laptops in the Classroom*, 36 OKLA. CITY U. L. REV. 185 (2011) (employing survey data and educational research to lay bare the major laptop myths).

The “ban” phenomenon is exacerbated by multi-tasking concerns.<sup>30</sup> One can benefit from the excellent review of the relevant literature provided by Willamette University’s Sam Jacobson<sup>31</sup> who has skillfully assessed the factors impacting student attention. He offers useful suggestions on how to address those factors in our rapidly expanding multi-media environment without imposing a blanket ban. Such bans are especially counter-intuitive, moreover, at schools requiring students to purchase laptops.

I *require* my students to websurf during class. Surfing is now directed to my Rules, Problems, Hypos, and Cases webpages.<sup>32</sup> Because of the way in which I “work the room” during their in-class collaborative activities, it is easy to observe who is surfing on the wrong beach. Thus far, I have observed only one non-conforming student doing e-mail during a class work break (described below). The laptop thus facilitates immediate linkage to the webpages containing the rules, statutes, cases, and problems in ways that could not be duplicated in my traditional casebook class.

### *Class Time*

Flipping a class involves more than just posting a lecture online. One must also focus on the other side of the flipped-class coin: how one structures class time. “The 7 Things You Should Know About the Flipped Classroom” provides a good starting point.<sup>33</sup> It identifies which courses would be best for making the transition to a flipped model. As the new kid on this block, I take no position on the assumption that the blended learning blueprint works better for only certain educational houses.

Because of the additional class time gained by my flipped classroom experiment, I can focus on supporting actors who should be in leading roles. Statutory construction is an example. I now have the time to begin most class sessions with a discussion of the key elements in each of the Federal Rules of Civil Procedure (FRCP). My prior rule reading assignments, without first

30. Perhaps the seminal assessment was done by the Joan Ganz Cooney Center and Stanford University. See CLAUDIA WALLIS, THE IMPACTS OF MEDIA MULTITASKING ON CHILDREN’S LEARNING & DEVELOPMENT: REPORT FROM A RESEARCH SEMINAR (2010), [http://multitasking.stanford.edu/MM\\_FinalReport\\_030510.pdf](http://multitasking.stanford.edu/MM_FinalReport_030510.pdf). I thus point out that they are the best multi-taskers ever, but the worst at retaining the materials—should they opt to e-mail or websurf in the wrong venues during class.
31. See M. H. Sam Jacobson, *Paying Attention or Fatally Distracted: Concentration, Memory, and Multi-Tasking in a Multi-Media World*, 16 J. LEGAL WRITING INST. 419 (2010).
32. Click the various webpages in my Federal Civil Procedure e-Book at William R. Slomanson, *Federal Civil Procedure E-Book*, T. JEFFERSON SCH. OF L. (Jan. 12, 2014), [http://www.tjls.edu/slomansonb/FedCivPro4\\_e-book.html](http://www.tjls.edu/slomansonb/FedCivPro4_e-book.html).
33. *Things You Should Know About Flipped Classrooms*, 33 EDUCAUSE (Feb. 2012), available at <https://net.educause.edu/ir/library/pdf/ELI7081.pdf>. See also Michelle Hook Dewey, *The Upside-Down Classroom: How the Flipped Lecture Model Can Be Used in Legal Education*, Session 1 Workshops, Inst. Law Teaching and Learning (June 2013), summary available at <http://lawteaching.org/conferences/2013/workshops/session1.php#session-c> [hereinafter Dewey].

exposing students to the video—were far less effective. One value added was that students had first read the rules when they viewed the videos—I pause for them, and then direct their attention to a split screen rules webpage. Their comparatively robust grasp of the Rules flows from taking more control of their own education. Our mutual endeavor—digesting this indescribably dry food for thought—is now a more tasteful enterprise.

Once I have fine-tuned this experiment, I hope to add more skills, as I have done in both my upper-division doctrinal courses.<sup>34</sup> For now, I have more class time to address practical war stories, deposition strategy, and how to get the client to timely participate in the interrogatory process. Such in-class details breathe life into the procedure du jour. But the caveat is that there has been far less time for adding such components in a 4-unit procedure course, as opposed to my planned 6-unit version.

I experienced my first “*Aha!* moment” early in my fall 2013 course. As my hallway and office conversations confirmed, my students wanted more classes to be flipped. As more of us do that, one hopes that more applicants will come to a school applying this fresh approach to legal education.

What about their examination performance? I do not think it wise to make this particular assessment without more data. I have high expectations. But I do not want to misrepresent the findings.

I encourage my students to form law firms. One purpose is to facilitate collaborative in-class learning. They have a several-minute “working break,” to prepare for their next in-class event, e.g., a case debate.<sup>35</sup> Most classes contain multiple breaks. During these periods I roam the room, responding to students whose hands are in the air. By responding to their questions about the upcoming case, problem, or hypo, they are encouraged to ask questions in a way I had not experienced before flipping. Some still do not know what to ask; and some others remain afraid to ask in public. But I find that all the students feel freer to ask the so-called “dumb” question when only the other students in their group/law firm are nearby. Also, they often ask a group-derived question. The time I now have to roam the room has also helped me establish a more personal connection with my students than in my first three decades of teaching. Once again, I view this improvement as evidence of their increased buy in; they are, in essence, engaged in multiple office-hour-like chats—but in class.

I also entertain questions about the last in-class event, and may announce a clarification before moving on to the next case or problem. Before flipping, I was not walking the room; I answered far fewer questions and I felt unwittingly smug about covering all the assigned reading. I took individual questions privately, after class or during office hours. I did not have the time to reach

34. See William R. Slomanson, *Pouring Skills Content into Doctrinal Bottles*, 61 J. LEGAL EDUC. 683 (2012).

35. I now have time to have them argue against one another’s firms allowing them to help run the class rather than individual students being interrogated by the professor.



more students in a more tangible way. My flipped class working breaks and the more robust, less threatening, learning environment fosters connectivity that promotes more student involvement.

I also visit students who never ask questions. These are the lone wolf hermits who reject civilization—whom I'd unwittingly ignored for 36 years. If the goal is to reach every student, hopefully during each class, I cannot merely address the working break questions just from the engaged students.<sup>36</sup> I have thus devised a few ice-breakers, designed to bring such loners into the fold. If they can chat with me in private, they will hopefully be more willing to risk public participation.

I am now spending more time on this helping-them-with-their-homework feature of the flipped classroom. That means I am devoting less time to in-front-of-the-class case analysis with only one or two captives in the hot seat.<sup>37</sup> Classes are not as teacher-focused.<sup>38</sup> I eventually hope to further limit in-class case-problem analysis—in favor of related skills exercises.

I had the time to do a problem or ungraded quiz in each class. It would be far more challenging to do so if students had not been exposed to the basic concepts before class through the videos. I no longer feel as pressured when covering the cases, again because of their initial exposure to the core concepts before class.

### *Student Surveys*

Law students are generally liberal, except when it comes to change. So I conducted multiple not-so-scientific surveys. I did not want to supposedly lead a parade, look back, and see no one marching behind me. In the first survey—at the end of the second week, and arguably too early—most students seemed to be on board. However, the jury was out for the rest. My mid-semester survey was more revealing; it included a total of 139 students in a first-semester day class and a third-semester night class. Contrary to my earlier expectation, I could not detect a significant difference between these two groups. As thus combined, 122 survey participants both watched and outlined the videos; 15 watched, but did not outline them; and two neither watched nor outlined the videos.

In both surveys students commented that viewing the videos before class helped them to better organize the puzzle pieces. The consensus was that they were thus able to write less, take better class notes, and formulate

36. I have more work to do with this experiment. But by reaching more students than possible in the traditional classroom, I certainly moved in the direction experts point. See Reach Every Student, *supra* note 13.

37. Nothing I have done or will do impacts student preparedness. (Lady Luck is my constant. Students place their law firm names on playing cards. I then call on law firms to choose the presenter for the next case debate. No one gets lost in the shuffle, as I did not permit the same person to perpetually represent the firm.)

38. Throughout my career, my best classes have been those where two or more students are debating while I play the traffic cop. I am now controlling more intersections.

better questions in class. Their in-class experience was not as overwhelming, given their early exposure to the concepts via the video previews. The videos also facilitated their ability to look up words they did not understand. They especially welcomed the opportunity to privately communicate with the instructor on multiple occasions in each class.

### *Tech Options*

There are a number of technical options for delivering out-of-class content, including many familiar content management systems such as TWEN, Blackboard, Moodle, and Desire 2 Learn. The available webcasting software includes Camtasia, Snagit, Jing, Cam Studio, EdCanvas, Opencast Matterhorn, and Panopto. Other options include YouTube, Screencast, Scribblink, iPad, and Echo360. Rather than clog this essay with technical reference footnotes, I recommend you consult Professor Dewey's Institute for Law Teaching and Learning presentation handout entitled, "The Upside-Down Classroom: How the Flipped Lecture Model Can Be Used in Legal Education."<sup>39</sup>

Do not despair if you (or they) experience a technical glitch. One way to minimize such problems is to advise your students to have more than one browser loaded onto their laptops. Fairly early in my fall 2013 launch, a number of students advised me that they could not access the password-protected videos.<sup>40</sup> My tech crew determined that accessing protected webpages through Internet Explorer was problematic but other browsers worked. Fortunately, most students had already loaded other browsers onto their laptops. I then cancelled the 911 call to my cardiologist. Caveat: the more familiar you and your students are with your chosen platform (e.g., YouTube), the less likely you will experience a steep learning curve or school-specific technical glitches.

### **Conclusion**

It is too soon to conclude authoritatively. However, as one observer notes, "Like everything disruptive, online education is highly controversial. But the flipped classroom is a strategy that nearly everyone agrees on. 'It's truly the only thing I write about as having broad positive agreement.'"<sup>41</sup> My upcoming flip of the year-long, 6-unit version of my 4-unit class will trigger numerous conclusions—which will supplement this essay at the above *legaledweb* blog.

39. See Michelle Hook Dewey, *The Upside-Down Classroom: How the Flipped Lecture Model Can Be Used in Legal Education*, <http://lawteaching.org/conferences/2013/handouts/1c-Upside-DownClassroom.pdf> (June 2013).

40. These are the Video and the Quiz-Problem Solution webpages. I "privatized" those pages, until I decide whether to offer my course to an open-source course delivery platform.

41. Tina Rosenberg, *Turning Education Upside Down*, N.Y. TIMES (Oct. 9, 2013, 11:45 AM), [http://opinionator.blogs.nytimes.com/2013/10/09/turning-education-upside-down/?\\_r=0](http://opinionator.blogs.nytimes.com/2013/10/09/turning-education-upside-down/?_r=0) (quoting Justin Reich, a fellow at the Berkman Center for Internet and Society at Harvard who studies technology and education). For more detail regarding Reich's work see *supra*, note 20.