





Librarians, Legal Research, and Classroom iPads—A Winning Combination

Integrating iPads into legal research instruction at Boston College Law School

By Alex Berrio Matamoros and Mary Ann Neary Photo courtesy of Jason Liu, law school technology consultant at Boston College Law School



ill using a tablet computer in the classroom help motivate law students and engage their interest in legal research? This was the question vetted by the teaching librarians at Boston College Law Library while applying for a university grant to supply iPad 2s to instructors as part of a pilot program. After using the iPads for more than a semester, these same librarians can respond "Yes!" to the question of whether tablets stimulate student interest and interaction in the classroom.

Integrating the iPad into Classroom Instruction

There are six teaching librarians on the Education and Reference team. Each librarian teaches one upper-level research class per semester; these are semesterlong classes accorded either two or three credits. Our opportunity to experiment with tablets in teaching occurred when Boston College's Office of the Executive Director for Academic Technology solicited proposals for a pilot program on faculty use of tablets in teaching. The pilot program, managed by staff from the university's Instructional Design and e-Teaching Services team (bit.ly/Lbcaks), offered loaned tablets for a semester to participants who demonstrated a willingness to experiment and seek out apps to use in instruction, share their results on a private blog, be involved in monthly user group discussions on their tablet experience, and solicit student feedback on their use of the tablet in instruction. Forty participants were selected, including the six teaching librarians in the law library.

Our Devices

The pilot provided each of us with a 32GB iPad 2, a Smart Cover to protect the screen, a VGA adapter cable, and \$25 for app purchases. In early December 2011, the educational technology specialists in the law library configured each iPad and installed a default set of free apps, including the WestlawNext, HeinOnline, Fastcase, ABA Journal, Dropbox, and Remote Desktop apps. The iPads were distributed to the group at a joint training session where common tasks were reviewed so that every team member was able to hit the ground running with his or her iPad. After using the iPads for a few weeks, the team met to discuss what apps they would like to purchase. We agreed on Page, Numbers, Keynote, GoodReader, Penultimate, WritePad, FileBrowser, and LogMeIn Ignition.

Putting our Devices to Work: iPad Successes and Woes

The pilot program began in January 2012. During the semester, we taught two sections of Advanced Legal Research (instructed by Mark Sullivan, Alex Berrio Matamoros, and Karen Breda) in addition to Bankruptcy Research (instructed by Mary Ann Neary), Insurance and Civil Litigation Research (instructed by Karen Breda), Research for Criminal Law Practice (instructed by Laurel Davis), and Intellectual Property Research (instructed by Joan Shear).

We have found the pilot to be a good opportunity to think critically about how we teach our courses, how we engage our students, and how we can use technology to enhance our teaching.

We viewed the use of iPads in the legal research classroom as preparing students for iPad use in law practice. In drafting our application for the pilot program, the teaching librarians debated possible classroom uses of the iPad. Following is our resulting list and our experiences in implementing each proposed use.

1. To free librarians from the classroom podium and allow us the mobility to walk around the room while conducting our classroom presentations and demos to increase interaction and student participation. We successfully accomplished this by wirelessly mirroring what was being displayed on the iPad's screen to the in-class projector and screen using an Apple $\hat{\text{TV}}$. Because the Apple TV only provides HDMI output and our in-class projectors only support VGA, we worked with the university's Media Technology Services staff to devise a way to change the digital signal to an analog signal so that it would display correctly. Once this problem was solved, we were able to achieve this desired use, which resulted in more of a seminar aspect to the class by reducing the physical distance between instructor and students, bridging the gap from the podium to the first row of students (some 10 feet or more in certain classrooms), and creating a more collaborative environment. Compared with previous semesters, students were noticeably more engaged in the material and volunteered to answer questions more frequently when iPad mirroring was used.

2. To demonstrate and encourage use of legal research mobile apps and sites in order to help students develop

competency with mobile versions of legal research resources already taught in our courses.

Students were exposed to mobile apps for major research vendors, such as the WestlawNext and Lexis Advance iPad apps, along with tablet-friendly websites from legal research vendors, such as Bloomberg Law and Bloomberg BNA. We discussed differences between mobile versions of the research platforms and the standard web browser version.

3. To facilitate group work during class time.

In one application, an instructor divided the class into groups, with some students searching physical volumes in the stacks, taking photos of pages, entries, and indexes, and sending results back to fellow group members who were working on companion digital resources. Students learned how to analyze time efficiency differences between print and digital research formats and responded enthusiastically to the competition element.

4. To engage students in class by having them use the iPad to demonstrate their research processes, strategies, and results through in-class mirroring.

We discovered that students were more eager to demonstrate their research when the anxiety element of standing at the classroom podium was eliminated. We revealed that the app versions of some legal research platforms did not contain all of the features of the browser-based versions, making it difficult for students to accurately replicate their searches. Students, however, also discovered that certain vendors' tablet-friendly websites, such as BloombergLaw, were the exact same sites as those available in a desktop web browser, so students had no trouble replicating their research on those sites.

5. To enhance class visits to the Rare Book Room by taking photos of fragile materials, allowing students to "page through" and zoom in on document features that they would otherwise not be able to interact with. We did not have an opportunity to test this proposed use during the spring semester as we had hoped.

6. To use in research situations where being able to zoom in and closely inspect images is important, e.g., patent applications exhibits, trademarked logos or icons, and comparing artwork for copyright infringement.

We did not have an opportunity to test out this proposed use during the spring semester as we had hoped.

All librarian instructors found the iPad to be a great tool for class preparation and assignment grading. The ability to download research exercises and exams onto the iPad to grade and review proved helpful and eliminated the need to print out the assignments and carry them around when grading at home. However, we did discover that our attempts to handwrite comments on the exercises using a stylus on the iPad proved more time-consuming than worthwhile, and we quickly switched to typing comments instead. Overall, most of our proposed uses were successful, albeit with some unexpected limitations at times.

The Next Phase

At the final university user group meeting of the spring semester, participants were given the good news that the pilot was extended through the end of the fall 2012 semester. This summer, we began planning for expanded use of the iPads in our fall classes. One priority will be to expand the use of wireless mirroring and student demonstrations using the iPad to create a more seminar-like atmosphere in our courses, which may necessitate the purchase of a second Apple TV so that one can be permanently installed in one of our teaching labs where many of our courses meet while the other unit can be portable and be used in other classrooms.

Our use of iPads has also led us to consider how to retool our class sessions in order to adopt a "flipped classroom" model, which endorses the use of streamed lectures and presentations to alter how students spend their time engaging with the material in and out of the classroom. In some instances, we plan to use a screen capture app to record what is being displayed on the iPad screen during a presentation that we then narrate. This capture can be uploaded to YouTube or another videosharing site. Student assignments will include viewing a video introducing the next day's topic in lieu of a research exercise; the instructor can then begin class by briefly reviewing the content, answering students' questions, and then using the remainder of the time for in-class exercises. This approach will lead to instructors engaging directly with students as they work through exercises, individually or in small groups.

We consider the pilot's first semester to be a great success and strongly endorse the use of iPads in the legal research classroom based on our experiences. During the pilot, our students have been more engaged, were more willing to participate and answer questions, and have enjoyed getting to use the iPads on occasion. We have also found the pilot to be a good opportunity to think critically about how we teach our courses, how we engage our students, and how we can use technology to enhance our teaching. We expect that the second semester of this pilot will continue to prove that using tablets in teaching really can lead to improved legal research instruction.

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