The BuckiPad

A Case Study on Evaluating iPad Circulation and Cost per Use at The Ohio State University Libraries

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Introduction

Enthusiasm around mobile technology and its applicability for student learning and engagement has flourished on The Ohio State University (OSU) campus. In the spring of 2012, OSU launched the Digital First initiative, aimed at transforming classroom and learning experiences for a student population of over 57,000 through use of innovative technologies. The Office of Distance Education and eLearning at OSU wrote that Digital First has "worked with the Ohio State community to develop and deliver mobile solutions for anytime, any-place learning. These include free content from iTunes U, low-cost digital textbooks, assistance with iPad deployment."[1]

A fascination with iPads in transforming the college experience is particularly pronounced at OSU. An active community of over ninety faculty and staff are engaged in sharing best practices on using iPads in the classroom. The OSU marching band has garnered tremendous press coverage for a student-led initiative to use iPads to design, practice, and perform phenomenal halftime routines, culminating with an appearance in an iPad Air commercial.[2] OSU assistant professor Nicole Kraft, from the School of Communications, has been featured in a *Washington Post* article based on her unique approach to taking attendance via Twitter, a practice enabled due to the deployment of iPads to all students in her journalism class.[3] In order to verify that students are actually in attendance, Kraft requires the tweets be relevant to the class content that day and contribute to the ongoing class discussions. Finally, the alternative student-focused paper *UWeekly* has referred to OSU as "iPad University" in an article about the various iPad initiatives on campus.[4]

The Ohio State University Libraries has sought to understand and participate in the campus-wide initiatives on mobile technology and student learning. Over the course of the 2013–2014 academic year, the libraries launched the BuckiPad Pilot Program to provide OSU students, faculty, and staff the opportunity to check out an iPad from the OSU Thompson Library.

What is most fascinating about the BuckiPad Pilot Program, as a case study, is that, in spite of a campus atmosphere ripe for iPad adoption, the circulation and assessment data of the pilot program did not reveal long-term, cost-effective sustainability.

Literature Review

In July 2012, Apple CEO Tim Cook stated, "The adoption rate of iPads in education is something I'd never seen from any technology product in history."[5] Higher education has participated in the rise of iPad adoption on campuses across the United States, involving not only students and faculty as individual consumers, but also at the institutional level through program, department, or institution-wide deployment. In fall 2010,

Seton Hill University, a small private liberal arts college in Pennsylvania, began distributing iPads to all full-time students, about 2,100 at the time.[6] Lynn University in Boca Raton, Florida, began loaning iPad Minis preloaded with e-textbooks for core curriculum to all incoming freshman in fall of 2013[7] and has expanded the program to all daytime undergraduates and new MBA students.[8] Institution-wide initiatives like these and the press coverage they generate contribute to a growing interest in using iPads in higher education as a way to transform the learning experience.

iPads in higher education have not come without controversy or backlash. When Stanford University's School of Medicine loaned iPads to all new students, it found that only a few weeks into the term, about half the students had already abandoned their iPads.[9] Back at Ohio State University, through a partnership with the Digital First initiative, the Ohio State Athletic Department has given its estimated 1,100 student-athletes an iPad as a way to enhance tutoring and mentoring services, as well as allow them to access athletic department and team content. Some students at OSU expressed concern over the program, suggesting that funds could be better used elsewhere.[10]

Academic libraries have also participated in the adoption of iPads in higher education through the development and deployment of iPad lending programs. University libraries across the country, from Haverford to CalTech, the University of South Florida to Boston College, Princeton to the University of Arizona, to name a few, have all developed programs that enable some portion of their patron population to borrow an iPad from the library.[11] Much of the research on iPad loan programs and academic libraries has focused on student use of iPads for academic purposes. At the University of Illinois, iPads were loaned to first-year students for one week, and their user behavior was explored through follow-up surveys and focus groups. Findings from this research include student emphasis on the importance of wireless connectivity in the classroom and the convenience and portability of using an iPad during class.[12] At Ryerson University, the library conducted research on long-term use of iPads among students through a project that followed four students who were given an iPad as part of the research for an academic year.[13] As Eichenlaub and her colleagues found, "the iPad is a hybrid device that can be used not only to consume information, but also to produce more content."[14]

What is common among academic libraries and universities is the student-focused outlook on iPads in higher education. From research to initiatives, iPads are seen as a way to transform the educational experience for students through improving access to information, enhancing student engagement, or offering alternative models for textbooks and course content at a reduced cost.

Overview of the BuckiPad Pilot Program

The Ohio State University Libraries created the BuckiPad Pilot Program through an Innovation Fund grant. This grant enables librarians and staff within the OSU Libraries to develop innovative ideas and services that have the potential to produce high value for library patrons.

The BuckiPad Pilot Program was designed to allow students, faculty, and staff flexibility in how they are able to use the iPads, while also providing them with a device that features OSU and library-curated content. Some of the features and restrictions of the program include the following:

- twenty-four-hour load periods (updated from five hours halfway through the first semester of the pilot due to user feedback)
- ability to use iPads outside of the library
- only one iPad per patron per checkout (meaning patrons are unable to check out multiple iPads at a time for classroom or group use)
- no holds allowed on devices
- devices preloaded with content and apps such as those that provide access to library resources, apps unique to the OSU community, or apps recommended for purchase by users
- choice between borrowing an iPad 2 or an iPad Mini
- charger included in loan

The BuckiPad Pilot Program ran from the beginning of fall semester 2013 through the end of spring semester 2014, with iPads available for checkout from the Thompson Library at the OSU, Columbus, campus. Ten iPad 2s and ten iPad Minis were purchased for the pilot. The development and deployment of the pilot involved collaboration among various library departments, notably Acquisitions, Circulation, and IT.

Marketing efforts for the BuckiPad pilot program included the following:

- campus press coverage in the alternative weekly paper *UWeekly*, the OSU student news program Buckeye News Now, and the Digital First newsletter
- library-developed promotions on the OSU Libraries' homepage, on digital monitors found throughout Thompson Library, and in leaflets distributed at other Columbus campus branch libraries
- a poster presentation aimed at faculty during the OSU Innovate Conference
- publicity via various social media outlets, such as Twitter, from the OSU Libraries, librarians, campus partners, and patrons
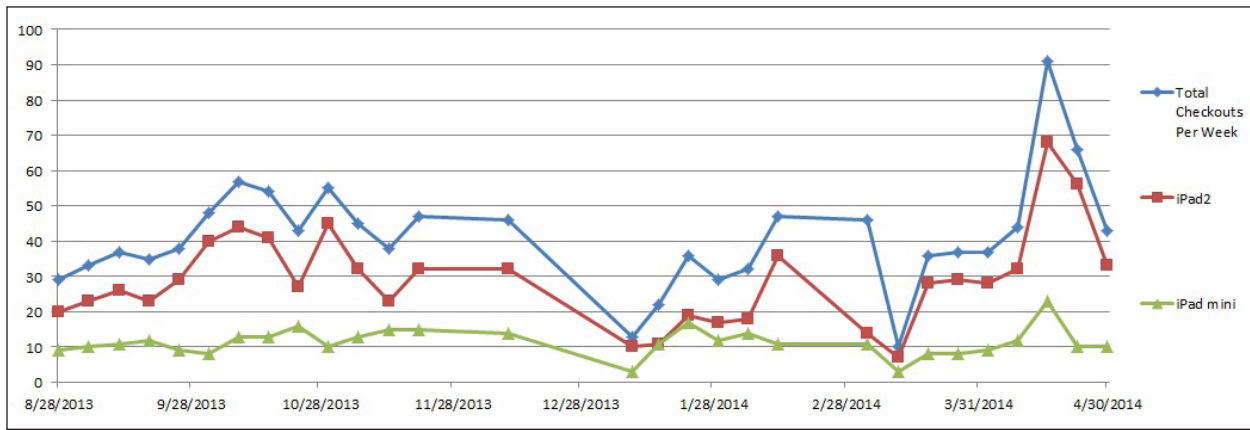
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Figure 3.1
Circulation statistics per week during the BuckiPad pilot

Though reaching all 57,000 students on the Columbus campus is unrealistic, the marketing strategy aimed to target patrons more likely to borrow an iPad. For example, the digital monitors in Thompson Library targeted students who were already users of the library and who could more easily stop by the circulation desk to check out an iPad. In addition, faculty and staff engaged in innovative teaching using iPads and other learning technology were targeted in order to encourage them to promote the BuckiPad program to their students so that learning technology gains could continue outside the classroom.

Assessment

While other measures of assessment were collected during the pilot program, such as user surveys, what ultimately mattered as a measure of success was the circulation statistics and calculations of cost per use.

Circulation Statistics

From August 21, 2013, through May 14, 2014, the iPads and iPad Minis were loaned 1,444 times from the Thompson Library. On average, the iPads and iPad Minis circulated a total of 41 times per week (see figure 3.1). Though this number may sound reasonable, if availability were maximized and every device were checked out once a day, seven days a week, then the iPads would have circulated a total of 140 times per week. Thus, when considering an average circulation per week of 41 loans against the maximum allowable loans per week, this number represents only 29 percent of the total available checkouts per week. In other words, on average, 71 percent of the iPads and iPad Minis sat idle and unused during the pilot.

For the iPad Minis specifically, which were purchased for their smaller size, greater portability, and lower price point, circulation was noticeably lower. On average, the iPad Minis circulated only 11 times per week, which translates to 85 percent of the Minis sitting idle or unused during the pilot.

If lending rates had been between 60 and 90 percent of the allowable loans (or between 84 and 126 loans per week), then the program would have been seen as successful. A rate higher than 90 percent would have indicated a need to re-evaluate the number of iPads available in the pilot program. Instead, the pilot saw a circulation rate of 29 percent, which is less than half of the lowest benchmark for success. Simply put, the iPads were not being checked out at a reasonable rate, and this is problematic for a program designed specifically to loan iPads.

Cost per Use

Through a grant, the OSU Libraries invested $11,099 in the BuckiPad Pilot Program. This funding supported the purchase of ten iPads and ten iPad Minis, a Bedford power cart to charge and store the iPads, OtterBox cases for hardware protection, a Mac Mini to manage the configuration and deployment software, Apple Lightning Adapters, and apps to be preloaded onto the iPads. These figures do not take into account the labor and overhead costs of the program.

Based on the 1,444 total loans, the cost per use during the pilot program was $7.69 per loan. Circulation statistics were collected over a period of 31 weeks. If each iPad circulated once a day, seven days a week, for all 31 weeks, then the total number of loans during the pilot would have been 4,340. Based on this figure, the lowest possible cost per use would have been $2.56 per loan. If the program were to continue at the same level of use, with no additional investment, then

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Table 3.1
Comparison of cost per use of the iPads based on actual and estimated number of loans

	Total Loans in 31 Weeks	Cost per Use
For actual number of loans in pilot program	1,444	$7.69
For maximum allowable number of loans	4,340	$2.56
For 90% of allowable loans	3,906	$2.84
For 60% of allowable loans	2,604	$4.26

by the second year, total cost per use over the program lifetime would have reached a more reasonable amount of $3.84 per loan, and in three years cost per use would have reached $2.56 (see table 3.1).

Discussion

When planning the BuckiPad lending program, it was not anticipated that the pilot would face a problem of low circulation. In the 2013–2014 academic year, the OSU Libraries served a student population of 57,466 undergraduates and graduate students on the Columbus campus. In addition, for calendar year 2013, Thompson Library saw a gate count of 2.26 million.[15] It was assumed that because of the sheer number of students on campus and volume at which the Thompson Library is used, the BuckiPad program would see high circulation rates and thus success.

If the pilot were to continue an additional two to three years, cost per use could have reached reasonable amount of $2.84 to $4.26 per checkout. With low usage and high cost per use, additional investment into the BuckiPad program in order to create a sustainable service is not advisable. However, the issue with the BuckiPad pilot is not only the cost. The issue is the underutilization of the iPad lending service in comparison to both the number of iPads available and the student population served. The major question that came out of this pilot is, why was circulation of the iPads so low?

With a campus culture embracing emerging technology trends like iPads and a marketing plan that was thoughtfully crafted to target potential users, neither the culture nor the promotion of the plan was an obvious reason for low circulation rates. So then, what other reasons could be driving low circulation rates of the iPads? Perhaps there is something else about the iPad and its brand that impacts circulation and use.

The iPad, originally designed as a personal consumer device, has not been branded as something to be shared. Because of this fact, perhaps the iPad is not an item conducive to traditional lending in a library. Some

of the research on iPad lending begins to address this notion. Hahn and Bussell wrote that "configurability to individual needs was another key trend from results surrounding mobile apps. Students wanted the library to have apps relating to major fields of study that directly meet their assignment-level needs and can connect them with specific, useful, current course information."[16] In their article on iPad lending programs within health sciences libraries, Gillum and Chiplock wrote that "lines are blurred between personal and educational use of the iPad, as it is so efficient at both" and further suggest that librarians and faculty need to emphasize the academic value of the iPad in order to distinguish the iPad as a tool for student's educational use.[17] What both of these findings suggest is that iPad lending in academic libraries may benefit from the development of programs that embrace this hybrid notion of an iPad—a sharable device that is best suited for individual configurability, as well as one that serves both educational and personal needs.

Longer loan periods may be one way of developing an iPad lending program that embraces its value as both an educational and a personal device. As Hahn and Bussell found, "we . . . thought that one week would be sufficient time with an iPad, but as we talked with the students we recognized that they might need longer checkout times to truly experiment with the iPad and take advantage of all its features."[18] At Ryerson University, a research project studied students' use of library provided iPads during the course of a full academic year. When participants in this research project were asked about the idea of shorter-term device loans, though they were supportive, they expressed concern "due to the personalized nature of this device (email, course-ware, scheduling, music, and photos) . . . [and] also expressed concerns that it would be difficult to start anew with each loan."[19]

The question, however, is what *is* an ideal loan period? Would it be a full term or a full academic year? Furthermore, should it be the responsibility of the library to loan devices for longer periods of time, or is this an initiative better suited to another department on campus? For example, at OSU, should the libraries consider term-long iPad loans, or should iPads be loaned at the departmental level for students enrolled in courses where iPad use in the classroom is already occurring?

Conclusion

Though the BuckiPad Pilot Program did not pan out as a long-term, sustainable service for OSU Libraries, the pilot's shortcomings provided invaluable insight and perspective. The low number of loans during the pilot program challenged assumptions and preconceived ideas about students and technology trends. At

a university the size of OSU, it is no longer a valid assumption that the adage "if you build it, they will come" can apply to any student-focused project. The sheer number of students and existing high usage of the Thompson Library do not necessarily translate into high use of all services and programs offered by the libraries, such as the BuckiPad program. Instead, intimate knowledge of students and their needs, expectations, and perceptions of library services and of technology is necessary for program development.

Whether it stems from branding by Apple or from how iPads have been adopted by consumers, the iPad is a personal device and cannot be easily divorced from this image. For libraries considering iPad lending programs, it is essential to understand this concept. Structuring an iPad lending program that addresses user preference for iPads as personal devices may help to create a successful iPad lending program.

Existing research and the findings from this article suggest that students' relationship with iPads and technology in higher education is much more complex than someone might assume at first. Further research is needed on why students adopt or reject technology, in addition to the existing research on what they use and how they use it. Further research in this area could provide a deeper understanding of the role of iPads and other emerging technologies in higher education as well as providing guidance to both libraries and institutions in designing and investing in new technology initiatives.

Notes

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