Introduction

Intentional Integration of Tablets and Mobile Devices into Library Services

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Tablets: A (Brief) Five-Year Review

The publication of this issue of *Library Technology Reports* could almost be a birthday gift to the Apple iPad. On April 3, 2015, the iPad turned five years old; unlike most five-year-olds, though, the iPad and its siblings have influenced the way we communicate and work. For those of us in libraries, the tablet and mobile device revolution sparked by the iPad ushered in a period of excitement and exploration. We wondered how tablets might change the way we work, the way we engage with our users, and the expectations that our users bring into the library. If nothing else, we understood that tablets and mobile devices hold great promise for enhancing teaching and learning opportunities, collaborations with faculty and other colleagues, reference services, access to collections, and circulation services.

The library world was, and still is, full of trailblazers in the new and sometimes rocky terrain of mobile devices and computing. As the tablet market filled with a wide variety of models and app stores filled with an overwhelming selection of ways to use mobile devices, library and information professionals pioneered processes, systems, and strategies for integrating these tools into library services. Aside from basic technical manuals and documents, no maps existed for these mobile technology pioneers who went hands-on as they tried to figure out why and how tablet computers and other mobile devices fit into the library and higher education landscape. Indeed, over the past five years, the rapid progress of the technology has made it difficult to try to create a map that represents the most effective ways to use tablets and other mobile devices in the library setting. Creating this map, however, is exactly what the case studies in this publication endeavor to do. In our first issue of *Library Technology Reports*, which discussed integrating tablets into library services, we focused on the incredible potential for tablets and mobile devices to reshape library services, including reference and instruction.¹ This issue reframes this discussion by viewing the potential of these tools alongside realworld considerations, constraints, and concerns.

Intentional Integration

The direction and philosophy of this publication owes a debt to Char Booth's 2009 report entitled *Informing Innovation: Tracking Student Interest in Emerging Library Technologies at Ohio University.*² In this report, Booth identified "technolust" as the driving force for many of Ohio University Libraries' programs, which became a problem when library staff started feeling spread thin by all of the experimental programs they were maintaining and developing. In order to combat the technolust, the libraries moved toward what Booth labeled a "culture of assessment."³ We don't want to spoil the report if you haven't already read it, but Booth made a very persuasive argument that technology decisions in libraries should be grounded in real insight into local library, information, and technology cultures.⁴ The report includes detailed information about research design and data analysis, so we strongly encourage you to read it, if you haven't already.

The one revelation from Booth's report that we will discuss here, though, relates to data that libraries often use to make decisions about technology. Booth wrote that, while making technology decisions, "many institutions bypassed local needs assessments and developed products largely on generational assumptions of changing student information and technology expectations."5 So we could tell you that the latest Pew data indicates that 64 percent of American adults have a smartphone and over 42 percent of American adults own a tablet computer or that Educause's data shows that 58 percent of university students are projected to own tablets in 2015.6 As interesting as those numbers may be, the goal of the case studies presented here is to inspire you to think past these big data points and to focus in on your community and your library's goals.

Case Studies of Intentional Integration

It can definitely take more work, more time, and more people to make intentional, insightful decisions based on your community and your library, but the rewards are clear. The case studies included in this issue plainly depict the role of strategy and assessment in a technology-oriented project while also explaining both the processes and project outcomes. Falling into three large categories or areas of library service, the five cases selected for inclusion in this issue discuss starting new services, stopping services that may no longer be relevant, and evolving the scope of core services through the use of technology. The categories and services described here certainly don't represent a comprehensive list of areas where tablet computers and mobile devices impact libraries, but they do offer well-defined examples of what intentional integration looks like in various areas of academic library work.

Circulation and Lending

Two of the cases in this issue describe the evolution and assessment of tablet circulation programs. Of all the ways that tablets and mobile devices can be integrated into library services, circulation programs are definitely the most visible and perhaps the most popular, as well. In chapter 2, Stephen Bollinger, Nina Exner, and Octavious Spruill of North Carolina Agricultural and Technical State University share the story of the evolution of the tablet loan program at F. D. Bluford Library. Similarly, in chapter 3, Juleah Swanson describes the process for evaluating the BuckiPad project, an iPad circulation program at The Ohio State University. Both case studies outline frameworks for evaluating these programs and offer insight into how assessment data can support difficult decision-making processes. Although North Carolina Agricultural and Technical State University and The Ohio State University serve very different communities, the authors' findings in both cases convey uncertainty about the future of their libraries' lending programs. Overall, both cases emphasize the importance of thinking about what success looks like for a specific program on a specific campus.

Teaching and Learning

In chapter 4, on how tablets were used to evolve the instruction program at Santa Fe Community College, Deana Brown details the methodology used by librarians to inform changes to their program. The four-year evolution of this instruction program included changes in technology and classroom space, but it was driven by both a learning philosophy and an attention to user needs. The most significant thing about this case study is that it demonstrates the power of a clear vision and philosophy. Brown's depiction of the vision and philosophy that drove the changes at Santa Fe Community College also emphasizes the role that assessment plays in enacting a particular philosophy and measuring whether or not a program has achieved success.

William Hicks's description in chapter 5 of the process of building a mobile device testing and development lab at the University of North Texas (UNT) Libraries links this project to user needs as well as strategic goals at the state level. Pointing to a directive from the Texas State Library and Archival Commission to ensure that Texas libraries developed mobile web options valuable to their users, Hicks writes that the lab developed at UNT Libraries has both internal and public objectives. Data gathered at the community level allowed Hicks and his team to make appropriate decisions related to the technology and services offered by the lab. Hicks stresses that the mobile device testing and development lab at UNT Libraries endeavors to represent both a learning environment for users who are aspiring developers and a testing lab for the development of internal projects that would enhance the design of the libraries' mobile presence and user access. Because of its dual purpose, Hicks's project spans the categories of "teaching and learning" and "access and design."

Access and Design

Tablets and mobile devices change the ways that users experience and access collections and other

library resources. Hicks and his colleagues at UNT addressed this consideration through the development of a mobile device testing and development lab; Aaron Ganci and John McCullough of OCLC, however, share in chapter 6 the process of actually developing solutions that deal with providing access to library content on the mobile web. Specifically, Ganci and McCullough explain different approaches to working in responsive web environments. More importantly, they discuss why they chose to use a specific approach called "mobile-first" to guide their methodologies and processes for gathering input from stakeholders and usability data from a beta site.

While they focus on two different pieces of the access and design area, the chapters authored by Hicks and by Ganci and McCullough agree that the diverse range of mobile technologies and tools is a challenge for libraries, library users, and even library companies like OCLC. The authors' emphasis on the many different tablet models, software, and other tools available serves to underscore the importance of understanding characteristics of user groups and communities in order to be able to make the best decisions when there are many options. Being intentional and strategic, though, when transforming library services by integrating technology can and should include additional components or best practices for ensuring that the changes being made are beneficial to the user communities and impactful for the library organizations involved.

Best Practices for Intentionally Integrating Tablets and Mobile Devices

Although the case studies in this issue come from a wide variety of institutions and perspectives, their stories share certain features. The approaches and methods described in these cases converge on a number of elements critical for being intentional about how technologies like tablets and mobile devices are integrated into library services. While perhaps not a complete map for navigating territory fraught with new technologies, the best practices identified here do serve as guideposts or trail markers for anyone ready to move out of the exploration phase and toward something more strategic and intentional.

Working within the Big Picture

A number of the authors who wrote case studies for this publication mentioned the role of considering institutional or state-wide strategic goals and directions. William Hicks connects the development of UNT's mobile device testing and development lab to a Texas State Library and Archival Commission goal. Similarly, Deana Brown ties changes in the library instruction program at Santa Fe Community College to reports from the New Mexico Department of Higher Education and the New Mexico State Library. In both of these cases, the changes and new services were supported at every level in the organization because they related to goals that were bigger than a single service.

State-, university-, and even library-level missions and strategic plans can offer direction for new or transforming library services. Reviewing these plans, statements, and other documents can be an important first step in making decisions about how to integrate new technologies. Furthermore, connecting programs and services to specific "big picture" goals can help you acquire the support from leaders and administrators and the buy-in from collaborators and users that are needed in order to get innovative projects off the ground.

Understanding the Community

Char Booth warns us of the danger of bypassing local needs assessments in favor of relying on perceptions and data about nationwide or even worldwide trends.⁷ Each of the case studies included here describes the special attention that the authors paid to understanding their local community and the specific user needs within that community. A number of the authors used surveys to gather this data; a few, like Aaron Ganci and John McCullough, used focus groups and workshops to gain a better understanding of community needs. William Hicks even turned to usage data gathered through Google Analytics to assess user needs and behaviors.

Regardless of the research methodology or type of data that you choose to use, the simple act of paying attention to user behaviors, needs, and characteristics is the important thing. A lot of relevant data may already exist in your library and on your campus that you would be able to use for gaining insight into your community. Campus enrollment demographics, technology requirements, and even career services information will be able to provide insight into your users that will allow you to be more intentional in the technology choices that you make.

Seeking and Building Collaborations

Nearly all of the cases described here also mention collaborating with colleagues as an important component of success. Seeking out and working with individuals who can assist with making your project a reality is a process that also ensures different perspectives and skill sets are represented in the project development. In her case study on the pilot lending program at The Ohio State University Libraries, Juleah Swanson notes that the project was dependent on a close collaboration among various library departments, including acquisitions, IT, and circulation.

Part of intentionally integrating technologies into library services can and should involve intentionally including colleagues from within the library or the community who can help support and guide the program. Because tablets and mobile devices, in particular, rely on wireless networks and other IT-related factors, it can be especially important to collaborate with the groups or departments that handle these issues in your library. If technology-integration projects are related to both institutional goals and community needs, though, finding enthusiastic collaborators should not be a problem.

Assessing

Assessment goes hand-in-hand with understanding the community and working within the big picture. By understanding specific user needs and specific institutional and organizational goals, describing and measuring success is not difficult. Again, almost all of the case studies included in this publication assess their programs and projects on some level. The two tablet lending programs, for example, use surveys and circulation data to gauge the impact of the programs and make difficult decisions about the future of the programs. As these two case studies demonstrate, developing an assessment plan and timeline at the beginning of a project involving tablets or mobile devices is the best way to be intentional about evaluating whether or not the program is actually meeting organizational or user needs. Assessment can be included as a means for making improvements to a program or for deciding whether or not to continue with a program.

Knowing When to Stop

If assessment data shows that users' needs aren't being met or that a library's investment in a particular project or service is too much, then it may be necessary to discontinue the project or service. The assessment data from both cases describing tablet lending programs indicated that these programs may not be as useful or as realistic as their creators originally thought. In one case, decreasing circulation statistics pointed to changing user needs, and in the other case, the library may not be able to continue to invest in maintaining and upgrading hardware and software.

It can be sad and frustrating to realize that a program, however intentionally developed, may not be working out in reality. However, making the decision to stop a program that isn't what your library or community needs is also intentional and strategic. Discontinuing one program can often mean that resources are available for a new project that may be more valuable and impactful for the library and its surrounding community. Furthermore, it can mean that individuals involved in new projects integrating tablets, mobile devices, and other technologies are not spread too thin and really are able to focus on thinking about the big picture, understanding the community, building collaborations, and assessing future projects.

Final Thoughts

While the editors and contributing authors worked hard on this issue, the world of technology continued to change and evolve. With the announcement of the Apple Watch in September 2014, the technology landscape has again shifted to include mainstream discussions of wearable tech and other trends that once belonged solely to the realm of science fiction. It can be challenging to keep up with technology trends and revolutions, but the library world's response to the appearance of tablet computers and other mobile devices has been inspiring. We embraced this new technology as a way to promote the core values, ethics, and competencies that have always driven the library profession. As we move from questions to exploration to strategic action, it is clear that the processes that we develop now will benefit us long after tablet computers have evolved into the next new thing that we need to learn how to integrate into our library services in effective, impactful, and intentional ways.

Notes

- Rebecca K. Miller, Carolyn Meier, and Heather Moorefield-Lang, eds., "Rethinking Reference and Instruction with Tablets," *Library Technology Reports* 48, no. 8 (November 2012).
- Char Booth, Informing Innovation: Tracking Student Interest in Emerging Technologies at Ohio University (Chicago: Association of College and Research Libraries, 2009), www.ala.org/acrl/sites/ala.org.acrl/ files/content/publications/booksanddigitalresources/ digital/ii-booth.pdf.
- 3. Ibid., 2.
- 4. Ibid., 103.
- 5. Ibid., 9.
- "Device Ownership over Time," Pew Research Center website, accessed May 26, 2015, www.pewinternet .org/data-trend/mobile/device-ownership; Eden Dahlstrom and Jacqueline Bichsel, *ECAR Study of Undergraduate Students and Information Technol*ogy, 2014, research report (Louisville, CO: Educause Center for Analysis and Research, October 2014), 15, figure 6, http://net.educause.edu/ir/library/pdf/ ss14/ERS1406.pdf.
- 7. Booth, Informing Innovation, 9.