

## Mobile Access—What the Library Wants: Mobiles as Discovery Enhancers

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# Mobile Access—What the Library Wants: Mobiles as Discovery Enhancers

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## Abstract

Library users now expect to be able to access academic content at any time from any location—not just in the library on a computer, but on their mobile phones, tablets, e-readers, and other mobile devices. Taylor & Francis surveyed 139 individuals to discover how use mobiles are used in a library setting, how publishers can help with content discovery in the library and which mobile functionalities are considered important. Taylor & Francis found that 78% of respondents rated mobile integration to find resources as important.

Publishing has changed dramatically over the last decade, making the shift from print to electronic. From online publishing, publishers moved to the need for digitizing archival content and finally to the phenomena of open content, enhancing discoverability of our platforms, making content accessible via mobile, and the use of social media to promote content, all of which suddenly became top priority for both publishers and librarians.

The following case study from Temple University explores the end-user approach to what professors and researchers need and want from the library. Laura Katz Rizzo, Director of the Dance BFA Program in the Esther Boyer College of Music and Dance at Temple University, has noticed a significant increase in student use of digital and mobile documents and applications in accessing material from the library and other research databases for both scholarly and research work in class and in performance.

Various strategies in use by publishers include creating a contained application native to a specific operating system (native app), developing an alternate web site that automatically launches when any mobile device is detected (mobile site), and developing journal web sites that resize when a mobile device is detected (responsive design). To determine the prevalence and functionality of these various strategies, top Library and Information Science journals were examined. It was discovered that responsive web design is the most popular strategy. Advantages and disadvantages of each strategy is described, and each strategy's impact on the user experience is explored.

## Survey Research Objectives and Demographics

The specific research objectives of the Taylor & Francis Mobile survey were:

- To understand how individuals are using mobiles in an academic and library setting.
- To determine how publishers can help with discovery in the library through mobile use.
- To know which mobile functionalities are considered important and which features add value to the library.

Of 139 survey respondents, 49% were students, 38% were academics, 7% were practitioners, and 6% were librarians.

## Survey Results

The survey results show the overwhelming use of mobile for accessing content, with 85% of respondents using their mobile devices at least once a week. This highlights the importance for publishers and librarians to make their content accessible by this avenue.

The popularity of mobile use may be linked to the fact that mobiles allow constant access to content. 78% of survey respondents stated how important it is that they have access to library content off site. Only 6% of individuals felt that it

was either “not at all important” or of “low importance.”

One respondent shared, “Having access to content in locations when you have time to spare creates more time for looking at content, and finding relevant information for research and teaching.” Another respondent stated, “I can read while I am on public transportation or in bed, right before I sleep. Therefore, I gain in matter of time and comfort.”

The survey results reveal that mobiles are used for multiple purposes in the library. Over 76% of respondents stated that they use mobile for searching and reading online content. 65% of respondents download content to read later and 31% use mobiles to view reading lists.

Search functionality was revealed as the most important feature of mobiles, with only 1% of respondents feeling it was “not at all important.” 92% of people thought it was of high or extreme importance to a mobile, showcasing how mobile is very much a discovery enhancer tool.

Other uses of mobile voted of high importance were “journal browsing,” which 63% of respondents chose as “extremely important” or of “high importance” and “saving to favorites,” voted as “extremely important” or of “high importance” by 55% of respondents. Functionalities such as “also read” and “sharing of articles via email and social media” were deemed less important, with just 40% of respondents voting “also read” as “extremely important” or of “high importance” and 26% viewing “sharing articles via social media” as “extremely important” or of “high importance.”

The survey results show the importance of mobile technology for end users globally in discovering content, and the importance of having a mobile policy in libraries which enables users to gain access to academic content when they need it.

## Conclusion

The Taylor & Francis Mobile survey shows that library users utilize mobile devices to view reading lists, download content to read later, and search

for and read online content. These results highlight the fact that people use mobiles to fulfil more than one need. The mobile functionalities deemed most important are search functionality, journal browse and saving to favorites.

With the discovery that 85% of survey respondents use their mobile devices at least once a week, it is clear that publishers and librarians must make their content accessible through mobile.

## The End User: Temple University Case Study

*Laura Katz Rizzo, Assistant Professor and BFA Program Coordinator, Esther Boyer College of Music and Dance, Temple University*

Dr. Katz Rizzo states, “In order to reach out to the student populations that I teach as well as the increasingly online world of scholarly and creative research communities, I have had to learn how to incorporate these mobile access points into my teaching and into my own research processes and portfolio building activities . . . I have found I must utilize mobile apps and online material to engage dance majors, facilitating the completion of their research assignments in required courses.”

Temple University has a nationally significant Dance Collection housing the documents of major dance companies in Philadelphia. The Temple Collection is searchable through mobile apps and devices, and students use it for research projects required for their dance history class. The institution’s special librarian devoted to Music and Dance has created guides for each department in the College and visits classes to teach students how to use digital processes to search, save, and cite digitized materials in the library’s collections.

Senior Seminar is a senior capstone writing class in which students articulate their comprehensive knowledge (summarizing the majority of their curricular work over the past three and a half years) and use this knowledge to develop a sense of where they want to go after graduation and how to create digital portfolios housed on websites that they can use in marketing

themselves in the wider dance field. They must build a digital portfolio that includes an artistic vision/mission statement, teaching philosophy, video reel, photographs, CV, business cards, logo, and a website that houses all of this information.

Temple University's General Education Program has stringent requirements for course proposals that ensure that all approved courses in a specific area address not only the larger general education learning goals, but also the learning goals for each area, whether it be Quantitative Literacy, Race and Diversity, World Society, or Science and Technology. The course encourages both information literacy and critical thinking in engagement with mobile resources on the part of students. Students research the companies they will see through their online profiles on Facebook and Twitter, as well as library resources including video databases, the online dance encyclopedia, and other online research guides. Part of the course involves deciphering differences in how an artist is represented on their website, on Facebook, in newspaper reviews and in scholarly dance research.

In writing her latest book, *Dancing the Fairy Tale*, Dr. Katz Rizzo used mobile applications to research the specific details of dance and other cultural productions as well as other important events affecting the context in which these productions took place (Philadelphia). This included online research guides and catalogs as well as social media groups and the websites of performance venues and other important landmarks and cultural institutions.

The Society of Dance History Scholars, Congress on Research in Dance, Popular Culture Association, CORPS de Ballet, International, National Dance Education Organization, American Ballet Theatre, National Choreographic Competition, and Jacobs Pillow all have online presences including archival material, blogs, Facebook and Twitter pages, blog feeds, and relationships with libraries housing special collections of content important to these organizations and their specific missions. Temple's Library directs users to different blogs and archives, as well as research grants in special areas.

## Conclusion

The survey results and the case study from Temple University showcase that due to the nature of mobile, the library is also becoming mobile in nature. The library is no longer one physical location, and mobile devices are popular discovery enhancement tools that enable users to access library content from any location, at any time.

## Should There Be an App for That? Scholarly Journals on Mobile Devices

*Linda Wobbe, MLIS, Head, Collection Management, Saint Mary's College of California*

### Background

*Academic library users want library resources on their mobile devices.* Surveys show 80% of college students own smart phones. A Ball State University survey finds 89% of their students own smart phones (Ransford, 2014). The Pew Research Internet Project Mobile Technology Fact Sheet (2014) reports 83% of the 18-29 age group owns smart phones. An annual survey conducted for Pearson (2014) by the Harris Poll concludes that 75% of high school students have smart phones and 42% use tablets. Pew (2014) reports tablets are owned by 42% of adults.

Students report interest in using their mobile devices for conducting library research (Barnett-Ellis & Vann, 2014; Caniano & Catalano, 2014). Libraries have implemented mobile sites and developed or purchased mobile catalogs. But libraries don't control the mobile sites of scholarly content. Schmidt (2013) offers a critique of carefully designed mobile library sites connecting to the widely varied mobile publishing strategies offered by publishers.

*Options for delivery of mobile content.* In 2011, mobile apps for databases and journals were released (Burns & Rofofsky, 2011; Hawkins, 2011; Kaser, 2011, Krishnan, 2011 ). While thousands of individual journal apps exist, dedicated apps must be designed for every operating system, which would be an enormous undertaking (Clark, 2012).

Alternatives to native apps include mobile sites and responsive design.

## Study

This investigation used library and information technology journals to identify the omobile options in use by publishers. To determine a list of journals to test, highly regarded journals (Manzari, 2013; Nixon, 2014), and highly cited journals (Nixon, 2014; Xia, 2012) were reviewed. Widely distributed journals were determined using *Gale Directory of Publications and Broadcast Media* (2014). The top 25 journals from these studies were investigated to determine the availability of mobile apps, mobile sites, or responsive design. Testing devices were an iPhone 4S, and and iPad mini.

## Journals Investigated and Results

1. *American Libraries*—American Library Association—0002-9769 (c)
2. *Annual Review of Information Science and Technology*—Information today/Wiley— 0066-4200 (c)
3. *Aslib Journal of Information Management*—Emerald—2050-3806 (b)
4. *Chronicle of Higher Education*—Chronicle of Higher Education—0009-5982 (a)
5. *College & Research Libraries*—Association of College and Research Libraries—0010-0870 (a-**BrowZine open access content**)
6. *College & Research Libraries News*—Association of College and Research Libraries/Highwire—0099-0086 (b)
7. *Collection Management*—Routledge/Taylor & Francis—0146-2679 (b)
8. *D—Lib Magazine: The Magazine of Digital Library Research*—1082-9873 (c)
9. *Government Information Quarterly*—Elsevier—0740-624X (c)
10. *Information Processing and Management*—Elsevier—0306-4573 (c)
11. *The Journal of Academic Librarianship*—Pergamon—0099-1333 (c)
12. *Journal of Computer-Mediated Communication*—Wiley—1083-6101 (c)
13. *Journal of Documentation*—Emerald—0022-0418 (b)
14. *Journal of Information Science*—SAGE—0165-5515 (b)
15. *Journal of Medical Internet Research*—1438-8871 (b)
16. *Journal of the Association for Information Science and Technology (JASIST)*— John Wiley—2330-1635 (a)
17. *Journal of the Medical Library Association*—Medical Library Association/PubMed—1536-5050 (b)
18. *Library Collections, Acquisitions, and Technical Services*—Taylor & Francis—1464-9055 (b)
19. *Library & Information Science Research*—Pergamon/Elsevier—0740-8188 (c)
20. *Library Journal*—Library Journals—0363-0277 (a)
21. *Library Quarterly*—University of Chicago Press/JSTOR- 0024-2519 (b)
22. *Library Resources & Technical Services*—American Library Association—0024-2527 (c)
23. *Library Trends*—Johns Hopkins/Project MUSE—0024-2594 (c)
24. *Libri: International Journal of Libraries and Information Services*—De Gruyter Saur—0024-2667 (c)
25. *Reference & User Services Quarterly*—American Library Association—2163-5242 (c)

**Native Apps—16% (a).** Four of the 25 journals investigated provide native apps. Two of the four apps are not available for iPhone, only iPads. BrowZine, a subscription app, is available for 76% of the journals studies. Android apps were not

tested. iTunes apps allow for a sleek reading and browsing experience, although authentication can require a visit to the standard site. Sharing options that are standard on iPad's include printing, emailing, texting, or social media.

*BrowZine*: Available by subscription, or use the free app to access open-access content. Provides access to all but four of the top 25 titles; limited to scholarly journals. Exceptions are *American Libraries*, *Chronicle of Higher Education*, *College & Research Libraries News*, and *Library Journal*. BrowZine does not currently offer search.

**Mobile Sites and Web Apps—36% (b).** Nine of the 25 journals studied offer mobile sites. Most journals have both html and pdf article options. Pdf articles on iPads or iPhones are easy to read, or save to iBooks or Google Drive for other saving or sharing options, including print and email. HTML is more variable. On an iPad, HTML usually allows for social media sharing, as well as printing and email. Authentication can be achieved using standard authentication although vendor instructions describe a complicated pairing system requiring users to access the site on campus first to register. Pairing expires. Most versions are not optimized for the iPad mini. JSTOR's web app offers a link to "Get Access" using standard authentication for registered institutions.

**Responsive Design—48% (c).** Twelve of the 25 journals offer responsive design. You navigate to the regular site using standard authentication, and the site is altered depending on the device. Similar to the web apps, some sites have three sizes, one for each a smartphone, tablet, and computer. Small laptop screens, like a MacBook, are sometimes detected as tablets. A small tablet, such as an iPad mini, is sometimes detected as a smartphone. This results in some silly experiences, such as search results limited to 1/3 of the screen, which is unreadable on a mobile phone. Most are very difficult to read on an iPhone; exceptions are noted below.

American Library Association, MetaPress.  
Responsive design. Complicated registration process.

De Gruyter Saur. Responsive design renders reasonably well on both iPhone and iPad.

## Mobile Problems

*Authentication.* With native apps and some mobile sites, authentication can involve a complicated pairing system that expires in a few months.

*Device recognition.* Mobile-recognition strategies are unable to meet the needs of the wide variety of devices available.

*Full site.* W3C's basic guidelines (2008) state that a link back to the full site should be utilized on all mobile apps and optimized sites. Unfortunately, the link back to the full site is often difficult to locate or not available on scholarly publisher sites.

*Accessibility.* A website designed according to standards for a mobile device can serve as a way to improving accessibility for all users. W3C (2009) provides a cross-walk between the two standards to highlight what needs to be done whether you already have an accessible site, or you already have a mobile site. iPads and iPhones have an array of built-in accessibility features (Baga, 2012).

*Sharing.* Both iPhones and iPads have sharing options built in, and every mobile site can be bookmarked, every pdf article can be shared through many social media options, emailed, printed, or saved to iBooks.

*Communicating to users.* There is no systematic approach to informing users of mobile options. Trott & Jackson (2013) found that 87% of 99 ARL Libraries' lists of databases had no information about mobile database apps or interfaces. Some creative approaches to this problem exist. Watkins, Battles, & Vacek (2013) report the development of a Drupal system to display an identifier for databases that are most suitable for mobile devices. The University of California California Digital Library support policy (2010) abdicates responsibility for providing assistance, and says "the user expectation must be set that use of non-mobile-optimized interfaces is unknown territory, and . . . these sites may have problems with access, display, and performance."

However, CDL notes that the greatest difficulty with mobile sites is authentication.

## Conclusion

Each solution presents suboptimal user experience. Native apps provide authentication challenges. BrowZine, an app that provides access

to almost all the journals investigated is subscription-based and does not offer search. Mobile sites do not render well on all devices, and present authentication challenges. Responsive design, the most frequently used strategy, uses standard authentication, but is not optimized for all devices.

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