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The Library Right There in My Hand: Determining User Needs for Mobile Services at a Medium-Sized Regional University

Paula Barnett-Ellis and Charlcie Pettway Vann

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Introduction

A student looking for a journal article approached the reference desk with cell phone in hand. He showed the device, with a photo of a library catalog screen, to a librarian, who was able to locate the text. The librarian then asked if he knew that some databases offered mobile access and if he would ever conduct research on his phone. He responded, yes, if he needed to, as it would be “right there in my hand,” and held up his cell phone.

While there have been a number of articles written about the need to provide mobile services for users, most have focused on large institutions. The authors, both librarians, wanted to find out how patrons of Houston Cole Library at Jacksonville State University (JSU), a small regional university, are using mobile devices and what mobile services they want or expect from the library. The possibility of finding the answers to these and other questions initiated the authors’ interest in surveying JSU students about their mobile device use. They invited 9,166 students and 1,053 employees to participate in the Mobile Devices Use Assessment Survey. The student population for the survey was composed of the total undergraduate and graduate enrollment in fall of 2011. The authors wanted to find out what mobile devices students own and whether these devices are used to access the Internet, including library web pages and services. An incentive for taking the survey was an entry into a drawing for a $15 iTunes gift card (a personal purchase by a librarian).

Both librarians noticed an increasing number of JSU students walking around campus with their eyes affixed to the little screens in their hands. The authors began to wonder how useful mobile library services would be to these connected students. JSU students come into the library with laptops, tablets, and smartphones. It is common to see students gathered at tables or sofas located near power outlets for their devices.

Interest in mobile resources is increasing campuswide as well. JSU introduced a mobile application for the iPhone in May 2011 that included a library catalog search function. A few months later, the JSU app became available for Blackberry and Android, allowing the user to “easily find books and other resources in the Houston Cole Library and even check their availability” (JSU Office of Distance Education, 2011).

Review of Literature

According to Rosario, Ascher, and Cunningham (2012), the past decade has seen a revolution in development and use of handheld devices, especially with the advent of smartphones. Mobile computing has become commonplace. Griffey (2010) states that libraries are expected to be places where people go to get information, but as mobile technology use increases, patrons want information to come to them. Additionally, Thomas (2012) writes that “a new wave of mobile-savvy users have arrived in our libraries,” users who are not only texting but arriving ready to use their e-readers, smartphones, and tablets.

Library patrons want Internet access wherever they are, and library public access computers are of no use to mobile users who do not come into the building. Libraries have been transformed by desktop computers and Internet access, according to Hanson (2011), and they must now be proactive in providing resources for their mobile users.

As Kosturski and Skornia (2011) stated, there is no one mobile program that works for all academic libraries. They write that libraries must keep in mind that what users want most from mobile services is convenience. Kosturski and Skornia noted that libraries need to take the time to see what type of devices their students use and then develop a program to pull their attention from the tiny screens and notice what the library has to offer. As growth in the use of smartphones and other mobile devices for Web access is predicted to surpass that of desktop computers, these services will extend the reach of the library beyond its walls and into hands of patrons wherever they are (Bizzle, 2011).

In 2011, librarians Dresselhaus & Shrode (2012) conducted a survey at Utah State University (USU) on undergraduate and graduate students to determine if they used handheld devices and, if so, why and how the devices were used. The authors found that 54% of the students used their mobile devices for academic work. Mobile services that students wanted included access to the online catalog, access to articles, and the ability to reserve study rooms.

Little (2011) reported in a 2010 study by University of South Dakota professor Alan Aldrich, 24 of 111 Association of Research Library institutions had mobile websites. Although this number is low, many academic
libraries are asking their users what they want, and their answer is more reliable mobile access library services (p. 267).

Every two years, the Association of College and Research Libraries Research Planning and Review Committee identifies trends in academic librarianship education. The committee consults with experts in librarianship, technology, and business to create and update the “top ten trends” list in academic libraries (ACRL Research Planning and Review Committee, 2012). The top trends in academic libraries which apply to library mobile device use are:

- Communication of value—prove its importance/worth in academia.
- Higher education —global and traditional education offered by a college or university
- Information technology—development, maintenance, and use of electronics for data.
- Mobile environments—information delivered and accessed via mobile device.
- User behavior and expectations—Libraries are often considered the last place to receive information, not the first, due to convenience and library skills.

Methods

JSU students, faculty, and staff members were invited to participate in the mobile devices survey. Although the JSU library serves the general public, the focus of the survey was only on patrons affiliated with the university. JSU students have a variety of mobile devices, ranging from laptops and cell phones to mp3 players, but the authors thought students might not know they can use them to access library services. The Mobile Devices Use Assessment Survey, conducted for two months in the fall of 2011, was designed to find out what devices the students have, what their perceptions are of mobile library services, and what services they would likely use if available for their mobile devices. As mobile device use grows among JSU students, the librarians wanted to find out what the library could do to keep up with the growth of mobile services. Selected surveys from the library literature were used to help develop questions. Of particular interest was the University of Nebraska Omaha’s Criss Library Mobile Use Study. Among the instruments the authors drew upon for developing survey questions was the University of Nebraska Omaha’s Use of Mobile Devices & Library Mobile Resources/Services by UNO Community Members Study/Survey Questions. The survey was helpful in determining types of devices and/or platforms patrons use, how they access library resources, and giving insight into what they want. Other libraries provided inspiration in survey question development by sharing surveys and making them available in published articles and websites. Other libraries’ efforts that inspired the design of the HCL survey were Archer Library at the University of Regina (Nowlan, 2013) and Ryerson University Library and Archives (Wilson and McCarthy, 2010).

After researching surveys and reading questions other libraries asked their users, the authors identified the best questions to ask the JSU community. These included type of computing devices respondents own, if they were able to access the Internet from their cell phone, which mobile device platforms they own, whether they access the Internet with them, and had they ever accessed library resources with mobile devices. After a preliminary survey was developed, the authors contacted Ms. Tienhan Ma, Coordinator of Assessment, at JSU’s Office of Research and Assessment (now the Office of Research and Planning) for assistance. She helped to focus questions for a more concise instrument that would obtain the desired information. The survey is included as Appendix A.

Results

Results showed most of the respondents were female, with 914 females and 432 males taking part in the survey. These numbers reflect JSU’s enrollment by gender. The demographics of the respondents are as follows: undergraduate students made up 73.63% of the respondents; 12.59% were graduate students; and administrators, faculty, and other staff made up 13.78%. Respondents between 19 and 25 years of age made up 43.62%.

The overall response rate was 13.21%. The number of students taking the survey totaled 1,164 out of 9,166, (total fall 2011 enrollment) or 12.70%.

17.66% of employees (administrators, faculty, and staff) completed the survey, or 186 out of 1,053.

Over three quarters, or 77%, of respondents indicated they had used any of various types of mobile devices before, such as a smartphone, e-reader, or tablet. A quarter (25.24%) of the respondents were aware that online database vendors such as Gale and EBSCOhost offer mobile access to databases. Over half of the undergraduate (52.58%) and graduate (58.58%) students indicated they were likely or very likely to conduct research using their mobile devices.

Respondents were also asked to indicate how often they used each of the listed library services and to rank their use from Never, Rarely, Sometimes, Very Often, to Always. Results showed 39.02% of the undergraduate and 38.65% of the graduate respondents (overall 35.49%) reported they used virtual reference services, such as Blackboard IM, very often or always. Of other available major library services, 9.17% of the respondents indicated they used library computers (to do assignments, perform online searches, or check e-mail), library print service and copiers, and online reference library services very often or always.
Details on the types of devices owned are presented in Figure 1 below.

![Device Ownership Chart]

When asked if they ever needed to access library resources but were unable to get to a computer, the results in Table 1 show that 17.51% of the undergraduate and 15.38% of the graduate respondents indicated many times, and 44.74% of the undergraduates and 44.38% of the graduates reported sometimes. Results from the other groups surveyed are detailed as well.

**TABLE 1  Have you ever needed to access library services but were unable to get to a computer?**

<table>
<thead>
<tr>
<th></th>
<th>Many times</th>
<th>Sometimes</th>
<th>Almost Never</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>17.51%</td>
<td>44.74%</td>
<td>19.84%</td>
<td>17.91%</td>
</tr>
<tr>
<td>Graduate</td>
<td>15.38%</td>
<td>44.38%</td>
<td>23.08%</td>
<td>17.16%</td>
</tr>
<tr>
<td>Administrator</td>
<td>14.29%</td>
<td>35.71%</td>
<td>21.43%</td>
<td>28.57%</td>
</tr>
<tr>
<td>Faculty</td>
<td>11.21%</td>
<td>31.78%</td>
<td>30.84%</td>
<td>26.17%</td>
</tr>
<tr>
<td>Staff</td>
<td>3.13%</td>
<td>17.19%</td>
<td>32.81%</td>
<td>46.88%</td>
</tr>
<tr>
<td>Total</td>
<td>16.02%</td>
<td>42.25%</td>
<td>21.76%</td>
<td>19.97%</td>
</tr>
</tbody>
</table>

When asked which services or web pages they would most likely use if mobile access were offered, over one half indicated they would most likely use virtual reference service (54.89%), catalog (51.58%), and periodical databases (50.85%), as presented in Table 2.

**TABLE 2 Services that respondents indicated they would use if available through mobile access**

<table>
<thead>
<tr>
<th>Service</th>
<th>Respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Reference</td>
<td>746</td>
<td>55%</td>
</tr>
<tr>
<td>Catalog</td>
<td>701</td>
<td>52%</td>
</tr>
<tr>
<td>Databases</td>
<td>691</td>
<td>51%</td>
</tr>
<tr>
<td>Ask a Librarian</td>
<td>511</td>
<td>38%</td>
</tr>
<tr>
<td>Handouts</td>
<td>285</td>
<td>21%</td>
</tr>
<tr>
<td>Laptop checkout</td>
<td>255</td>
<td>19%</td>
</tr>
<tr>
<td>Other</td>
<td>40</td>
<td>3%</td>
</tr>
</tbody>
</table>

Other services specified by respondents include:
- AV equipment request (2)
- E-books
- GEM e-mail (2)
- Google/Search options
- Interlibrary loan request (2)
- Library hours
- MyJSU access
- Online database vendors (Biological)
- Online journal access (2)
- References: CINAHL Plus
- Virtual checkout (downloadable)

Of the 100 respondents who provided comments, 62 reported using mobile devices to access HCL services was a great idea and would be very useful to students. A few (4) said that they didn’t like the idea or thought it was not likely to be useful to students. A few did not own a mobile device, and several preferred not to use one. Offering e-books for use on readers and the iPad, and training sessions on how to use them, were suggested. Questions were asked about how to access HCL services from mobile devices. Some wondered if mobile access would require an application, what limitations it would it have, and whether they would have access to annual reports, research papers, and citations to books. The following are selected quotes from survey answers.

- Any and ALL opportunities for remote utilization of library resources and services are welcome!
- Anything that is mobile would be GREAT! But HCL better consider the wi-fi because it sucks, and Students don’t want to use all their data. I would Probably pay more tuition if they improved.
- Being able to find books online at any moment is Extremely helpful—especially when discussing Projects and papers in class. Being able to form my topics around the books and materials available to me is great.

**Discussion**

Since the completion of the survey, HCL has added some mobile services, including mobile accessible interfaces for
the online catalog and LibGuides. Database vendors also offer mobile interfaces. An ad hoc tablet use task force was formed to research and investigate how tablets and e-readers are used in academic libraries.

Results indicate that JSU students are more than twice as likely to use mobile devices than faculty and staff. A total of 1,157 students filled out the survey. (See Table 4) Out of 319 full time faculty members, 107 completed the survey. In addition, out of 560 full time staff members, 64 completed the survey. Faculty and staff numbers are from JSU Fact Book 2012-2013. (Jacksonville State University Fact Book 2012-2013). This shows that the use of mobile devices is more prevalent among JSU students than faculty and staff members. The authors also deduced that some faculty members have not adopted mobile devices as readily as students. Moreover, staff members who work outside do not have time to access mobile resources.

Academic libraries, whether large or small, have an obligation to students, potential students, and all users to connect them to the information they need in the most accurate and convenient format possible. Exploring future technologies will keep academic libraries current and relevant, as students expect to have access to information anywhere and anytime.

The authors would like to conduct the study again in the near future, as it would be interesting to see how students feel a few years later, and what devices they use or would like to use to access library resources wherever they are. Other information that would be useful would be to find out in which school or college a student is enrolled and/or their majors.

Conclusion
The purpose of this research was to find out how HCL patrons used mobile devices to access library services. Respondents said they were likely to use virtual reference, the online catalog, and periodical databases if mobile access was available. The findings indicate that mobile use will increase for HCL services. The authors’ findings were similar to those of larger institutions. Results show that students are interested in having access to library mobile resources, even if they do not own the latest mobile devices. The authors concluded that more marketing of the library’s resources was needed because students were not fully aware of all the mobile services available. In order to provide library users with the best services whenever and wherever needed, library faculty and staff must stay current with evolving technology.

References


Appendix A

Survey Questions

1. How often do you use each of the following library services?

<table>
<thead>
<tr>
<th>Service</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Periodical Databases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laptop Checkouts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ask a Librarian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handouts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virtual Reference Services such as Blackboard IM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (Please specify in the “Other” below)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Increasingly, libraries are offering mobile access to services. The following questions are designed to find out if Houston Cole Library (HCL) users have an interest in such services.

2. Have you ever used a mobile device, like a smartphone, iPad, etc. to access websites?
   - [ ] Yes
   - [ ] No

3. What type of mobile device do you have? (Select all that apply)
   - [ ] iPhone/Android/Blackberry/Other smartphone
   - [ ] Cell phone (not smartphone)
   - [ ] E-Reader (such as Kindle, Nook, etc.)
   - [ ] Tablet (iPad, Android, etc.)
   - [ ] None

4. Have you ever needed to access library resources when you were not able to get to a computer?
   - [ ] Many times
   - [ ] Sometimes
   - [ ] Almost Never
   - [ ] Never
5. If the HCL offered mobile access, which services or web pages would you most likely use? (Select all that apply)

☐ Catalog
☐ Periodical Databases
☐ Laptop checkout
☐ Ask a Librarian
☐ Handouts
☐ Virtual Reference Service, such as Blackboard IM
☐ Other (please specify) __________________________

6. Are you aware that online database vendors, such as Gale and EBSCOhost, offer mobile access to databases such as CINAHL, Academic OneFile, etc.?

☐ Yes
☐ No

7. How likely are you to use an online database to conduct research using your mobile device?

☐ Very likely
☐ Likely
☐ Somewhat likely
☐ Not likely

8. Please let us know of any comments or questions you have about mobile library access.

______________________________________________________________
______________________________________________________________

Information about you

9. Are you a(n) (Your primary role)

☐ Undergraduate student
☐ Graduate student
☐ Administrator
☐ Faculty
☐ Staff

10. Your age

☐ 18 or younger
☐ 19–25
☐ 26–35
☐ 36–45
☐ 46–55
☐ 56 or older

11. Your gender

☐ Male
☐ Female

12. If you would like to be entered into a drawing for a $15 iTunes gift card, please provide the following information. The winner will be notified by phone and e-mail.

Name: ____________________
E-mail: ____________________
Contact phone number: ____________________