Expanding Access to Devices, Collections, and Services

Abstract

Although web sites accessed on phones are the most obvious type of mobile Internet use, they're not the only kind. This chapter provides other examples of mobile library services that can be geared toward diverse populations: audiobook collections, text reference and notification, and device lending programs. Where possible, the focus is on inexpensive ways to implement these services.

Chapter 2 addressed ways to make your Web presence more mobile-accessible and treated information delivery via mobile web browsers. I started here because the Web, accessed via a browser, is the first thing many of us think of when we think mobile information access. However, there are many more devices than just phones, and they have many more capabilities than web browsers. I can't hope to cover every other type of mobile service you could provide—and even if I could, something new would be available by the time you read this. What I aim to do instead in this chapter is give you examples of some diverse types of mobile services libraries can provide, in hopes of inspiring you to think broadly about the possibilities. This chapter will discuss literacy promotion and outreach using audiobooks; text reference and notification services; and expanding access to mobile devices themselves.

Audiobooks

The Little Priest Tribal College Library/Winnebago (Nebraska) Public Library is a combined academic and public library serving a largely Native American population on the Winnebago Reservation. Librarians here noticed that patrons of a variety of ages faced literacy challenges, from kids who were not read to much at home to college students who did not have college-level reading skills. As part of a multipronged strategy to combat this, the librarians built an audiobook collection encompassing hundreds of titles.[1]

An audiobook collection can be made mobile in a variety of ways. The library can lend devices, such as Playaways. In fact, the Washington, DC, public libraries will deliver devices to the homes of visually and physically handicapped patrons.[2] OverDrive supports compatibility with mobile devices including iPods and smartphones, though a desktop computer is required to transfer content onto iPods (other than the iPod Touch), so for some patrons this can be done only in-library.

Audiobooks can also be used to reach out to patrons whose first language is not English. OverDrive offers audiobooks in Spanish, though with many fewer titles than its English collection. (The first three big-city library websites I checked—New York, Los Angeles, and Chicago—all link directly to their Spanish-language collections in the sidebar of their digital book pages.) Additionally, free public domain audiobooks and podcasts can be found online in a variety of languages. Library curation could do much to make these more accessible.

If you're looking for a free option, you can create, or augment, an audiobook collection with LibriVox. This is a collection of public domain audiobooks read by volunteers. As the recordings are also explicitly in the public domain, you can do whatever you want with them. For example:

- Add them to your catalog, with links to the books for patrons to download. (Of course, this is the bare minimum, and not particularly interesting!

Nor does it include any special outreach to diverse populations. By all means catalog them, but don't stop there.)

- Curate a list of links to books you recommend for particular populations.
- Download the books to library computers and put them behind the interface of your choice.
- Slice them into chapters and create a library podcast. Then go a step further and couple your podcast with an online or face-to-face discussion group.
- Couple them with the text versions (which are also free for your use as they are in the public domain). Create self-reading books to aid language learners and patrons with reading disabilities.

LibriVox
http://librivox.org

As with OverDrive, LibriVox books can be used to reach out patrons whose first language is not English. While the vast majority of the books are in English, there are books available in forty-four languages. The best represented non-English languages are Chinese (dialect not specified), French, German, Italian, and Spanish, all of which have several hundred books available. However, there are books in languages as obscure as Esperanto and Church Slavonic.

And if there's not a good selection in your patrons' languages—create one! All LibriVox books are recorded by volunteers, from freely available public domain texts. Project Gutenberg, which supplies free texts of public domain works, allows for browsing by language in its catalog. Sixty languages are represented. Again, while English is probably the largest, there are at least fifty books available in each of fourteen languages, including Chinese, Spanish, and Portuguese.[3] (Project Gutenberg also supplies some public domain audiobooks. Most are in English, but not all.)

Project Gutenberg audiobooks
www.gutenberg.org/browse/categories/1

As LibriVox says on its volunteering page, "You do not need any prior experience to volunteer for LibriVox, nor do you need to audition or send us samples. All you need is your voice, some free software, your computer, and maybe an inexpensive microphone."[4] (And it truly is inexpensive: you can get an adequate microphone for $30.) The LibriVox site has extensive instructions on how to get started as a volunteer. Imagine hosting recording parties, where you invite your patrons to make recordings using library technology you probably already have. It's outreach, it's digital literacy,

it's content creation—and it results in something your patrons made that they, and the world, can use.

Texting: Reference and Notification Services

According to Pew data from September 2011, 83 percent of American adults own cell phones, and 73 percent of them—that's 61 percent of all American adults—text. In fact, 31 percent of cell owners—that's 25 percent of adults—*prefer* text messages to phone calls; another 14 percent prefer texting in some situations.[5]

Unsurprisingly, the demographic factor most affecting texting is age. Young adults (18–24) text most frequently, with the mean user sending and receiving over 100 texts per day. The impact of age dwarfs that of any other demographic factor. However, there are also disparities by race and income. Just as we saw with mobile phone use in general, blacks and Hispanics text more intensively than whites do, with the median user sending and receiving twice as many text messages. People with lower income and education levels also text more than people at the tops of those scales. While smartphones are not required for texting, people who own them are also more likely to text.[6]

Given that texting is so pervasive, it's no surprise that many libraries have adopted it as a medium for offering services. These services fall into two broad categories: notifications and reference.

Notifications can be used for anything short. For instance, patrons can ask the library catalog to text them a call number—no more hunting for scraps of paper. You can see this in action in figures 8 and 9, which are screenshots of Eastern Kentucky University's (EKU) catalog. Figure 8 shows part of a catalog record, with the texting option highlighted. If you click on that (do your own search and try it!), you'll see a screen like that shown in figure 9. This screen will show you the information you'll be texted (title, call number, and location); prompt you for your phone number and carrier; and let you add an optional message. There's also a privacy notice and warning that charges may apply (left out of the screenshot). When I tried it, I received (quickly though not instantaneously) a text message from nobody@eastlib.uky.edu.

Eastern Kentucky University Libraries catalog
http://ekulib.kyvl.org

Other notifications that libraries provide via SMS include availability information for a given title; reminders about books coming due (and notices of books overdue); notifications that holds are available; and information provided upon request, such as

Figure 8
EKU catalog record with texting option

Figure 9
Screen for setting up call number text message from EKU catalog

library hours or a list of the patron's items on hold or overdue. Of course, anything brief is reasonable for an SMS notification service.

In fact, anything you can e-mail people from your ILS you can text them, too (though you may need to edit down to 160 characters). Most cell service providers have an SMS gateway that converts incoming e-mail to outgoing text messages. All you need is the destination phone number and the identity of the service provider, since the gateway address varies by carrier. Therefore, if you know a patron's phone number and carrier, you can send texts: just put the correct SMS gateway e-mail in your ILS instead of a normal e-mail address. Wikipedia has a list of the magic addresses for many carriers, and Jason Griffey's *Mobile Technology and Libraries* gives more information on how these gateways work.[7]

What if you'd like to give patrons more choice in the kind of notifications they can receive by text? The above examples may prompt users for a bit of needed information, but they don't offer any choices. However, libraries can and do offer more interactive notification systems, allowing users to specify the information they want from a menu of options.

An example is the text message account notifications service offered by the Skokie Public Library.[8]

Users can sign up for this service via text message. Once their number is on file, they can send specified commands to the system to request a variety of information, including lists of their holds and overdue items, courtesy and holds notifications, and overdue warnings. The responses are handled automatically. Once text notification systems are this interactive, of course, they're barely a step away from reference provision.

`utcref` is the AOL Instant Messenger handle for the University of Tennessee–Chattanooga (UTC) Lupton Library. The reference system automatically converts the text message to an instant message sent to the Lupton Library. The staff can then interact with the patron via normal IM channels, with the system handling the switching between text and IM.

While text notification and text reference systems can look similar from the patron's perspective, except that reference allows for much more free-form messages, reference does require more infrastructure on the library's part. For starters, the system has to be staffed. Librarians also need a system for receiving and responding to the text messages. This might be a dedicated phone or a system (probably vendor-supplied) that takes advantage of SMS-to-IM functionality, as in the UTC example.

If you're using a phone, there's no special technology needed; just advertise the phone's number. Training is likely minimal, as most people know how to text. The costs are the normal cost of the service plan and of acquiring the phone (though phones can be cheap or even free with new contracts). Whoever has the handset is on duty. The main advantage of this plan is its simplicity; the main disadvantage is that it's hard to share the work, since only one person can effectively be on duty at a time. (This may be a particular challenge if you've pitched your text reference service to multilingual populations.)

Using SMS-to-IM functionality may need a little more overhead to set up, but offers advantages. Even with a vendor in the picture, it need not be expensive. Because it integrates with IM, if you have existing chat reference, there's no additional technology, workflows, or staffing needed for the service—though

you will need to train people to remember to respect people's texting costs by keeping their messages brief. Vendor options can also include queue management, which allows you to monitor unanswered questions and to share the workload among multiple librarians.

There are multiple vendors you can choose from for text reference and notification services. Nina McHale has a detailed blog post about the process (and costs) of setting up text reference at the University of Colorado–Denver Auraria Library with Libraryh3lp.[9] The Skokie Library's service, described above, uses Shoutbomb. Other companies in this space include Altarama and Upside Wireless.

There are some obvious down sides to text services. One: texts are limited to 160 characters. This demands discipline on the part of librarians staffing the service and limits the depth of the reference interview and the types of reference questions that can be adequately answered. Two: patrons who do not have unlimited data plans are paying by the message. Thus, while long messages can be split up, it's undesirable to do so. Because of the potential expense, texting needs to be an opt-in service, and libraries must respect patrons by being concise. If it's necessary to convey significant information, give a teaser version in the text and use a shortened URL as a pointer to the rest.

However, texting is nearly ubiquitous, and people who text find it fast, simple, and convenient. Furthermore, texting may be more effective than e-mail for reaching some populations. People who do not have home broadband or a smartphone will find texts much more accessible than e-mails. And if your target population includes teens, not only are they usually avid texters, but for years they've seen e-mail as technology "for old people."[10] They'll use it if they have to (for instance, to communicate with stodgy parents, teachers, and, yes, institutions), but they're far more interested in other modes of communication, like texting and instant messaging.

As ever, know your patrons. People are happiest communicating when they can use their preferred medium. For some, stodgy is good. Others prefer to text.

Expanding Access to Mobile Devices

Smartphone penetration is surprisingly high, and getting higher. Even feature phones can be used to provide some mobile library services. However, this barely scratches the surface of the array of mobile devices now on the market. While smartphones can run apps and be used to read e-books, they're a different experience from a tablet computer or a dedicated e-reader device. And apps aren't necessarily available for all platforms, meaning that an Android user may be locked out of an experience available to iOS users (and vice versa). In the spirit of providing access to

all citizens, some libraries have launched programs to lend mobile devices. Here are some examples.

The L. E. Phillips Memorial Public Library in Eau Claire, Wisconsin, is the first public library to check out iPads. There are both on-site and seven-day circulating collections; patrons who are part of the library's home delivery program may check them out as well. Video tutorials on the library website help patrons explore features, including the preloaded e-book collection. Borrowers sign contracts verifying that they understand the terms of the loan, which include steep fines to deter loss, damage, or overdue devices, as well as a checklist to ensure that the device is returned in good condition with all its accessories.

According to the library, the goal of circulating iPads "is to provide library customers with opportunities to gain familiarity and comfort with new technology that allows them to make use of alternative methods of enjoying the written and spoken word and to more fully explore the Internet and its vast resources."[11] Indeed, this seems to be how patrons are using the devices. One patron, a parent, checked out iPads to explore the educational apps; another, a speech therapist, thought iPads might be useful in her work but wanted to try it out before buying the expensive device.[12]

Another device with obvious applicability to libraries is the e-reader, and many libraries have instituted e-reader lending programs. School libraries are especially prominent in this space, with Buffy Hamilton of the Unquiet Library at Creekview High School (Canton, GA) perhaps the best known. Ms. Hamilton has experimented with a Kindle lending program and, as of fall 2011, moved on to a Nook program. Both are extensively documented on her blog, *The Unquiet Librarian*.

The Unquiet Librarian

Because e-reader lending is still fairly new, there are challenges that need to be worked out, and there is not yet a standard way for libraries to handle them. Library catalogs are not well equipped to keep track of the large numbers of books on each device, and terms of service generally require books to be associated with devices, rather than letting students remix their own book playlist from the library's collection when they check out a device. Librarians need to either hack MARC records, repurposing fields to keep track of which books are on which device, or maintain their own records outside of the catalog. (For an example of the first, see the Bryant University library Kindle collection. The Unquiet Library keeps a spreadsheet.)

Libraries also need (as with the iPad program) to establish policies concerning loss and damage, and procedures to keep track of any accessories (such as cases). Particularly in a school setting, they also need

to have policies for handling material that patrons download to devices or to disable patron purchases using those devices. Finally, there are legal complexities because the devices' terms of service are geared to the consumer rather than the library market. Kindle lending programs have long operated in a legal grey area with conflicting messages from Amazon; this was a major factor in the Unquiet Library's switch to Nooks.[13] With the recent announcement of the Kindle/OverDrive partnership, there should be expanded options for library use, but the program is too new at this writing to be analyzed. Furthermore, it does not offer a solution for non-OverDrive customers. Barnes & Noble offers an in-house program for managing devices that is more library-friendly in some ways, but it still has limitations; B&N maintains some control over the devices, and their content must be managed through the B&N program.

Kindle posts
http://theunquietlibrarian.wordpress.com/category/kindle

Nook posts
http://theunquietlibrarian.wordpress.com/category/nooks-at-the-unquiet-library

Bryant University library Kindle collection
www.bryant.edu/wps/wcm/connect/Bryant/Divisions/Information%20Services/Library/Access%20Services/Kindles

One final obvious disadvantage to all mobile devices lending programs is cost. These devices are not cheap. Eau Claire's program was funded by a $50,000 grant from the Presto Foundation;[14] Chambersburg also secured grant funding to launch its project. Creekview was able to use a mix of state funding set aside for library materials and local funds such as fines and donations, but also recommends that libraries interested in e-reader programs look into grants. In short, there are many sources of funding outside of the regular library operating budget that people can, and should, look to when considering lending mobile devices.

Of course, there are also advantages to a device lending program. Many people, even skeptics, find that they just like the experience of e-readers: the ease of use, the control over font size, the ability to keep an entire library in your pocket. Ms. Hamilton's program was driven by basic values of librarianship: "I want to implement this pilot project to provide our students the opportunity to read on a device that they otherwise might not be able to access and to provide them an alternate reading experience in hopes that we can meet the needs of all students."[15] Not only her device selection but her marketing and book purchase policies speak to the goal of getting all students interested in reading.

According to *School Library Journal,* Ms. Hamilton has found other benefits of the program based in "the three P's of librarianship—participation, portability, and personalization." Students like participating in book purchase decisions, and then being able to carry a personally relevant library with them. And in fact, the article goes on to note a fourth *P*: privacy. Teenagers don't always want their friends to know what they're reading, which might inhibit them from checking out certain paper books—but that's not a problem with the Kindle.[16]

In the same article, librarians at middle schools in Chambersburg, Pennsylvania, note other advantages. Joanne Hammond notes that reluctant readers who might be intimidated by the size of a lengthy book in paper format won't notice it in electronic—they can just be pulled along by the story and tackle more ambitious books. Katherine Miller, who uses iPads for her e-book program, says that the iTranslate program helps English language learners look up unfamiliar words using their native language. Dedicated e-readers (as opposed to tablets) may not have this functionality, but they do typically have dictionaries, so again they provide in-line help with unfamiliar words.

Finally, note that the list of devices you might lend is large, and growing. The best device for your library depends on a number of factors, including cost and your aims in lending it. Are you aiming to provide a reading device, or to give patrons the experience of cutting-edge hardware, like the librarians in this article? Or are you looking to do something else, like put content creation tools (literally) into people's hands, or provide access to educational apps, or expand the reach of location-based services?

In this report I've discussed only iPads, Kindles, and Nooks. Some other devices you might wish to consider include these:

- Other brands of e-reader—a constantly growing list.
- iPod Touches. Popular as classroom devices, they have many educational apps available, and a large number of bloggers discuss implementing their iPod programs and maintaining their collections for classroom use. They provide many of the options of other iOS devices, such as access to the App Store and a touchscreen interface, though their location-based capabilities are limited (as they use only Wi-Fi when available, not GPS, to determine location information). They're iPhone-sized rather than iPad-sized, which may or may not be an advantage, depending on your use case. They also start at less than half the price of an iPad.
- Android-based tablet computers. (There are many, and CNET has reviewed many.) While they don't necessarily cost less than an iPad, they provide

access to a different array of apps. It's also a much more open app ecosystem—it's easier to develop apps for Android and the operating system is open source—which might appeal to library values.

> ## CNET reviews of Android tablets
> http://reviews.cnet.com/best-tablets/best-5-android-tablets

- The Kindle Fire. This tablet computer is available only for preorder as of this writing. Its obvious advantage is its low price ($199, the same as a low-end iPod Touch, and well under half an iPad). Amazon's recent deal with OverDrive has made its books more library-friendly as well. However, historically library programs have operated in a grey area of Amazon terms of service, and the company has not been particularly friendly toward library use cases, so anyone considering a library Fire program should read the terms carefully.
- A Nook reader, as a tablet. While a Nook ships as an e-reader, it's really an Android tablet computer set to boot into the Nook app. By rooting the app—that is, gaining access to its operating system as a privileged user—you can convert it into a low-cost, low-end, but fully functional Android tablet computer. (See nookDevs for the latest instructions on how to do this, as well as all sorts of other ways you can hack a Nook.) Rooting your device is explicitly legal (at least until 2013) according to the Librarian of Congress's 2010 round of DMCA exemptions. However, it's worth noting that it will certainly void your warranty.

> ## nookDevs
> http://nookdevs.com
>
> ## Exemption to Prohibition on Circumvention of Copyright Protection Systems
> www.copyright.gov/1201

Notes

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