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Technical Services Going Mobile

How technical services librarians can benefit from integrating mobile technologies and devices into their daily workflow

By Ning Han



Technical Services Librarian Ning Han uses mobile devices to transmit scans of book title pages to the remote cataloging librarian.

Mobile technologies and devices have changed people's lives dramatically since being introduced. There are many players in this mobile technology sphere. The iPad is one of the dominant players and is considered a "must-have" technology. The iPad is not just for entertainment; lawyers are finding innovative ways to use iPads in their practices to improve productivity and efficiency. According to the 2013 Clio "Apple in Law Offices" survey, three-quarters of respondents said that they own an iPad and two thirds of them said that they currently use iPads in their law offices. iPad has penetrated the legal market.

There is a similar trend in legal education. Mobile technologies and devices have been a favorite topic of discussion at conferences in recent years. Law librarians are among the early adopters in this changing landscape. There are many great articles discussing how mobile technologies and devices can be used to facilitate reference services and research instruction at individual institutions or firms. However, what we haven't seen or heard much about is how technical services librarians can benefit from integrating mobile technologies and devices into their daily workflow.

This article will address the needs, values, and practices of using mobile devices for technical services librarians. Specifically, it will discuss areas where using a mobile device can tremendously simplify workflow and dramatically improve productivity and efficiency.

Everyone's Gone Mobile, So Why Not Technical Services?

Our Library

Like many other law libraries, George R. White Law Library is an early adopter of mobile technologies and devices, especially in the areas of reference services and legal research instruction. In addition, our students have a tendency to use tablets along with their laptops for studying. The library has always been very responsive to students' mobile-technology needs since it opened its doors in fall 2012. Under this institutional environment, I started to wonder how I could be more proactive with students' needs as a technical services librarian.

Our Technical Services Department

In addition to the law school environment, our Technical Services Department presents its own unique needs for employing mobile technologies and devices. We have a one-person technical services department. I am charged with performing a wide range of tasks, from acquisitions, system management, and cataloging to collection development, budgeting, policy setting, and student worker training. It would seem to be an overwhelming job, but the strong infrastructure support that we receive from our main campus library has made it a manageable one. That being said, on a daily basis, I still must manage to get things done in a timely and organized manner. Being efficient is key.

Take cataloging maintenance workflow, for example. I found it to be quite a waste of my time to run between stacks, my office, and the processing room in order to gather all the information I need to make necessary changes in our Integrated Library System (ILS). Oftentimes, I realize I need to refer to records other than the one I have printed out. This is especially true when working with legal serial titles. It usually takes me more than two trips to gather all the information I need. I believe that most of you, especially cataloging librarians, understand this pain. Not only is time wasted, but unnecessary printing costs are incurred. Mobilizing this workflow would be beneficial.

Maybe saying that I am a one-person department is not totally fair. We do have a cataloging librarian who works remotely for us on a part-time basis. She is based at our main campus in Portland, Oregon. We share her time with the main campus library. It is great to have extra help, but the fact that she is 400 miles away from us poses new challenges. She cannot catalog any books without seeing them. We need a solution to bridge the distance gap between our remote cataloging librarian and all the new books. In the past, the solution was the scanner/copier in our printer room. It is not a bad solution, but there are problems. Often, I need to play with different paper size options to make a scan work. Some books or binders are too bulky, so I can't get a good scan. And we share this scanner/copier with students. I often find myself in students' way as they impatiently wait to print out assignments for their classes. Most important, it is not feasible for me to add book titles or ISBNs to the subject line of a scanner email at the same time as I am doing the scanning. All the scanner-generated emails have a random subject line. I need to modify the subject line as a separate step so that we can search for all the scans when needed. Not to mention how many times the books need to be hauled around the library for such a simple task. This is another area where mobilizing and streamlining the workflow saves tons of time.

There is also the need to perform inventory control, especially for our study aids and other popular or high-demand titles. This is one of the tasks that has traditionally been performed with laptops but not necessarily through mobile devices like tablets. Lightweight

and wireless equipment would be ideal for this purpose. It would be even more ideal if the selected equipment allows us to make changes right after an error or inaccuracy is spotted during any inventory control projects. Besides, mobilizing this workflow with lightweight tablets has add-on benefits. If student workers were assigned to this kind of project, they could bring the tablet screen to their supervisor's attention if a problem was discovered. Or they also could do a screenshot if no supervisor was available at that moment.

In addition, having a mobile device around will help ensure that the OPAC and websites are mobile compatible. I am responsible for customizing our OPAC landing page as well as our library search page. Since many of our students are using their mobile devices for research, I want to be as proactive as I can to make sure whatever the library offers is mobile-compatible.

Cloud-Based ILS

Alma, a cloud-based ILS that we recently migrated to, makes it possible for us to mobilize technical services workflows at our library. This cloud-based structure allows us to access Alma via a web browser from any device that is connected to the internet, including tablets. Basically, this cloud-based system further opens the door for our technical services department to go mobile.

Our Device Choices

All of the aforementioned needs lead to one obvious conclusion: going mobile would benefit our technical services department and the library as a whole. After getting approval from the library director, the next question is what device we should choose.

Windows 8 Tablets vs. iPads

Budget and compatibility are two of the biggest concerns when it comes to choosing a device. If we hadn't migrated to Alma, Windows 8 tablets would be the only choice available to us. A Windows 8 tablet can act as a laptop since it supports a full windows system. Traditional library systems that require installation can only be mobilized by using a Windows 8 tablet. Since Alma is cloud-based and no installation is needed, we have more options in terms of choosing a device.

If budget was unlimited, Windows 8 tablets would still be my first choice, even though they don't seem to be

necessary in our case. However, I do need to operate within a budget. A Windows 8 tablet can easily cost from \$800-\$1,400, which is way beyond the budget I have. That leaves me to choose between Android tablets and iPads. Between these two, it comes down to more of a personal preference. To me, the iPad seems to stand out more compared with other tablets available on the market.

Before I committed to iPad, I performed some compatibility tests. I needed to find out whether Alma, our ILS, and OCLC Connexion were iPad-compatible or not. I was hoping to find apps for both Alma and OCLC Connexion in the app store. Unfortunately, no such apps have been developed. The option of running both programs on Safari is still available. As I expected, both Alma and OCLC Connexion run smoothly on the iPad web browser, Safari. The interfaces came up exactly the same as on any PC. I performed a few tasks, such as adding item records, changing location code, etc., and nothing indicated that Alma and OCLC Connexion are not iPad-compatible. So iPad passed both the budget and compatibility tests.

The Quest for the Perfect Wireless Barcode Scanner

Finding a perfect wireless barcode scanner was the next agenda item. The internal library barcode we use here is in CODABAR format, and the regular ISBN barcode is in CODE 39 format. Those two formats are the most commonly used barcode formats. Presumably any barcode reader should be able to read these formats with no trouble—at least, that is the case for all of our wired desktop barcode scanners. However, I learned that this is not always the case. It is true that any barcode scanner is capable of picking up the raw data string embedded in a barcode, but not every barcode scanner can convert the raw data string to the format that we need.

In the interest of being budget-friendly, I initially purchased a relatively cheap Inateck barcode scanner off Amazon.com. It worked fine except for CODABAR reading. It picked up both the start and stop characters every time when it read a CODABAR barcode, but the start and stop characters need to be stripped in an ideal reading situation.

To give you a better idea of what I am talking about, here is sample reading of the Inateck scanner: A13702000021564B. We don't need

either the A or the B in the reading at all. All we need is the barcode itself. The other problem with this scanner is that it doesn't break each reading with a space. If you read two or more CODABAR barcodes in a row you will get: A13702000021564BA13702000021564B. It is really hard to read or work with. I contacted Inateck tech support, and they confirmed that there is no fix for either issue. But the tech support representative did indicate that we

Most wireless scanners nowadays are compatible with iPad through Bluetooth connection. I didn't run into any issues in this regard.

iPad and Socket Mobile Scanner in Action

It only took a minimum amount of initial configuration before I was able to put both the iPad and the Socket Mobile scanner into action.



A close look at the iPad and the Socket Mobile scanner. On the screen is Alma, the cloud-based integrated library system that the library migrated to in December 2013.

should go with barcode scanners in a higher price range. He pointed out that those scanners have gone through programming to eliminate such issues.

After learning all that, I started another round of searching for a perfect wireless barcode scanner. I contacted a few vendor friends for recommendations. Socket Mobile barcode scanner seemed to be the best choice for us. It is small and super lightweight with a retractable lanyard attached. Socket Mobile's customer service is also very responsive and easy to work with. When I first received the Socket Mobile barcode scanner, I ran into all the issues that I had with the Inateck scanner, but Socket Mobile found solutions to every issue. I reconfigured the scanner by following the instructions they gave me. Now the scanner is doing exactly what I want it to do, especially with CODABAR.

Bye-Bye Painful Scanning Process

As I described earlier, I need to scan new books and send images of the title page and t.p.verso to our remote cataloger. The remote cataloger and I share an Outlook inbox just for those scans. We use the inbox as a repository for all the titles to be cataloged as well as an organizing tool for the already-cataloged titles. I added this Outlook inbox to the iPad so that I can send and receive scans from the device. After the iPad and the wireless barcode scanner were introduced to the workflow, I no longer needed to haul new books to the printer room and to the processing room. Scanning can now be done wherever the new books are located. I also no longer need to occupy or take the scanner/copier away from our students. Most importantly, I no longer need to revise subject line or supply location and material-type notes in a

separate step. The iPad serves both as an image scanner and a PC in this case.

When I first switched to the iPad for scanning, I proposed snapping photos and sending those photos as attachments to our remote cataloger. But the feedback I received is that multiple photo attachments are harder to work with than a single PDF file. Based on this feedback, I installed an app called CamScanner, which helps with converting image files into PDF files and is even capable of OCRing your files if needed. But the simple capability of converting image files to PDFs is sufficient for us.

To be more specific, I use the CamScanner app to create a “New Doc.” Then I take photos of the book’s cover page, title page, t.p.verso, and the back cover page. If it is a multi-volume set, I may take more photos. But generally, four photos per book is good enough. CamScanner then converts the photos into one PDF file so that I can email it to the shared Outlook inbox. When composing the email, I am able to type the book title in the subject line and use the wireless scanner to scan the ISBN into the subject line. Plugging in titles and ISBNs enables us to search for a specific title when needed. I am also able to supply information like location code, bookcirc, or booknoncirc in the body of the email so that the cataloger knows how to code each title properly in our ILS. The cumbersome two-step workflow gets simplified with an iPad and a wireless barcode scanner.

Cataloging Maintenance Gone Efficient

Cataloging maintenance has become so much more efficient after we started using the iPad and wireless scanner combination. We now only need to make one trip to the stacks. In addition,

we eliminated the need to print out records for reference and to bring pen and scratch paper for notes. Locating the problem records in the local ILS and cross-referencing to the correct records in OCLC Connexion while in the stacks has also become much easier with a mobile device like the iPad. Most errors can be fixed right after they are spotted. For the ones that cannot be fixed on-site, I always have the option to either take screenshots of the problem records or take photos of the physical items in question so that I can do more research after returning to my office.

No doubt, mobilizing the cataloging maintenance workflow can tremendously improve efficiency and productivity. This would especially be true for large law libraries with stacks spread among different floors. In my case, since there is no need to go back and forth between stacks and my office, I no longer get interrupted by other peripheral matters and can stay on task longer. More work gets done, and it takes less time to do it. It also potentially improves data accuracy because there is no need to rely solely on memory or notes.

A Better Tool for Inventory Control

I have also discovered that the iPad and wireless barcode scanner are powerful tools when it comes to inventory control. It is definitely much more lightweight and less cumbersome compared with the laptop option. The iPad workflow is quite similar to the workflow of using a laptop. As I mentioned earlier, mobility is one of the important benefits of using an iPad and wireless barcode scanner in this scenario. I have to employ student workers to work on projects like this, and they often don’t feel comfortable making changes to our ILS unless they are well-trained. With the iPad, whoever

is assigned to perform the inventory control can bring the screen to my attention if an atypical problem is discovered. If I am unavailable at the moment, they can take a screenshot to show me when I become available.

For the Future

Going forward, I see many other areas within the library workflow that could benefit from going mobile—and these areas are not limited to technical services. In the near future, I would like to see at least two more things happen: mobilizing the check-in and check-out workflow as well as the fines-collection workflow. It is very much like bringing the retail store check-out style to the library setting. With an external credit card reader attached to an iPad, fines collection can be handled in a similar manner, as long as the system infrastructure supports it.

Overall, from what I have tested, going mobile does a lot of good for me and our technical services department. There is an obvious improvement in efficiency and productivity, as expected. Moving forward, we would like to develop other creative ways to integrate mobile technologies into our daily workflow. If you are a technical services librarian who is interested in improving your workflow, I would strongly suggest you consider employing mobile devices. Please feel free to contact me if you have any questions about employing mobile technologies in your own technical services department. ■



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