

Christopher Chan

Mobile sites made simple

Solutions for smaller academic libraries

Smartphones are fast becoming standard-issue equipment for university students. Regardless of whether they choose devices running Android, iOS, or one of the other operating systems vying for a piece of the mobile pie, students are increasingly accessing the Internet through mobile devices. The 2011 Horizon Report highlighted the rising importance of mobile technology in education, and predicted the mainstream adoption of mobiles for teaching and learning within a year.¹

Libraries have of course responded to this emerging trend. Given the critical importance of the library Web site as a gateway to the entirety of a library's collections and services, much attention has been paid to the creation of mobile versions that allow smartphone users to conveniently access this vital resource. In a recent article, Brendan Ryan provided a thorough overview of how a library can develop a mobile Web site and useful advice on areas such as HTML and CSS coding.² He further emphasized the importance of code validation to ensure the

site displays properly on the wide range of devices available.

Such efforts to provide an excellent mobile experience for library users are to be applauded. However, smaller academic libraries often do

not have the required expertise or resources available to approach the creation of mobile sites in this way. It is nevertheless still necessary for them to provide the mobile access that their users are increasingly demanding,

however. Here I will describe how one academic library built a quality mobile Web site in a way that required little technical expertise on the part of its staff and a relatively minimal outlay of resources.

Going mobile at HKBU Library

The Hong Kong Baptist University (HKBU) is a government-funded institution with ap-

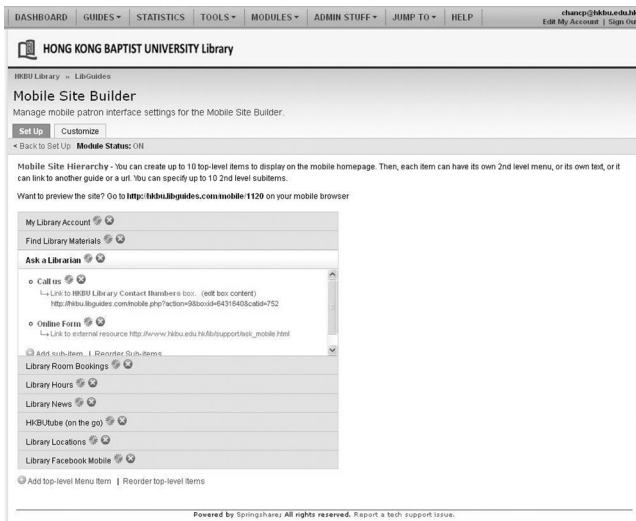


Figure 1. Mobile Site Builder interface.

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proximately 8,400 students enrolled in programs of all levels. Early in 2011, HKBU Library began to consider the creation of a mobile library Web site tailored for smartphones. Although only anecdotal observations had been made, it appeared that an increasing number of our students (perhaps even a majority) owned smartphones. The number was expected to continue to rise, as cut-throat competition has made both devices and data plans relatively affordable in Hong Kong.

There was also some indication that students were already using their devices to access the library's online services and resources. Our Web analytics statistics showed that the library Web site was receiving a substantial number of visits from mobile devices, despite the fact it was difficult to navigate on a small screen. Taking this evidence in conjunction with the wider trends reported in the literature, a decision was made to prioritize the creation of a mobile version of the HKBU Library Web site.

As a relatively small academic library, HKBU Library does not have a full-time person or department dedicated to the Web site. The project was assigned to the library's Web team, which is drawn from staff of various different departments. Since team members would be working concurrently on other projects as well as their routine departmental duties, effort was made to reduce the additional workload that the mobile Web site project would create. Although the team would have likely been capable of producing a mobile site from

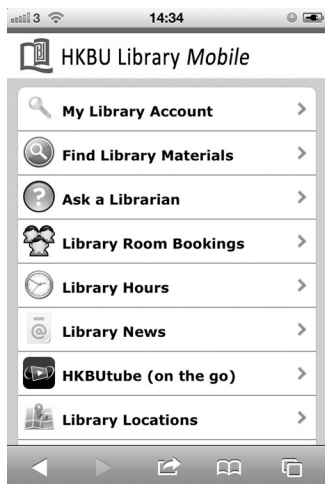


Figure 2. HKBU Library mobile homepage

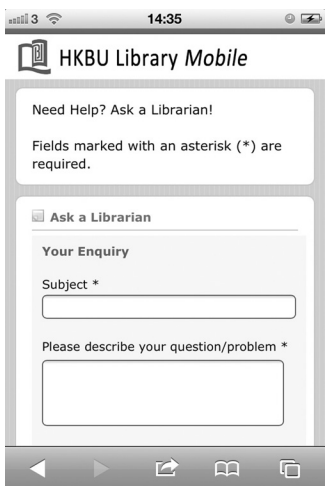


Figure 3. Mobile Ask a Librarian online form

scratch, we tried to identify ways to reduce the time and effort spent without compromising on the quality of the final product.

Mobile Site Builder

By happy coincidence, at around the time the team began work on the project, Springshare (a company best known for its LibGuides platform) released a new tool called Mobile Site Builder. LibGuides is very mobile-friendly, to the extent that some libraries have adapted it for the creation of mobile

Web sites.³ It is therefore unsurprising that the company launched a product for the specific purpose of mobile site creation.

After examining the features of Mobile Site Builder, several advantages relevant to HKBU Library's needs became apparent:

- A simple point-and-click interface for Web site construction, which does not require any specialized technical expertise. Changes and updates to the site can be made easily via the browser-based administrator tools. At the same time, customization of the HTML and CSS code is possible (within limitations).
- The tool takes the problem of ensuring that the site works on all different types of devices out of the library's hands. From previous experi-

ence with viewing LibGuides pages on mobile devices, we knew that the vendor was able to deliver attractive pages on a variety of different smartphones.

- The site itself is hosted on Springshare's servers, relieving the library of associated technical and maintenance responsibilities.

By removing much of the complexity

involved in putting together a mobile Web site, it was believed that Mobile Site Builder would enable the fairly swift completion of a mobile Web site. An additional attraction was that the cost was quite reasonable, given the amount of staff time that it would save. An order was therefore placed for the product, which was quickly enabled as a module of our existing LibGuides system.

With Mobile Site Builder in place, the team was able to focus on site content. When approaching this task, it is better to determine what mobile users would want from the site, rather than simply reproducing the desktop Web site for the small screen.⁴ For this, we relied primarily on our own understanding of the needs of our users in the mobile context. Team members agreed that items like library opening hours, contact information, and access to their library accounts would all be things that users would expect from a mobile library Web site. Useful insights were also gleaned from the statistics for our full site, which revealed that the top destination for mobile visitors was the online room booking system. This was duly included on the list of content for our mobile site.

Based on this initial plan, Mobile Site Builder was then used to put together the site. The site creation interface is very simple, with just two tabs: “Set Up” and “Customize” (see Figure 1). The “Set Up” tab is where the structure and content of the mobile site is configured. On the “Customize” tab, options for changing the color of the site and adding a custom banner can be found. Additionally, custom <HEAD> code can be added here, this was used to embed our Web analytics tracking code into the pages of the mobile site.

We were quickly able to construct a mobile homepage consisting of ten top-level items (see Figure 2). Items on the home-

page can link to content boxes, secondary menus, or to external resources. Appropriate icons were added to make the page more attractive. To further save staff time, these were obtained from free sources on the Web instead of being designed in-house. Care was taken to use only those graphics clearly marked as being licensed for such use.

As previously mentioned, all of this content is hosted on the vendor’s servers. However, we did decide to create and host one page of the mobile site on the library’s own server. This was the online form through which users can submit questions to the library’s e-mail inquiry service. As this requires users to disclose their personal

information, the library was more comfortable with this page remaining within the university network. To ensure seamless integration, the form was designed to mimic the appearance of the mobile site (see Figure 3).

While our experience with Mobile Site Builder was largely positive, it should be noted that the tool places some significant limitations on what designers can accomplish. The design and layout of the site, consisting of stacked rows of menu options, is essentially fixed.

No alternative schemes (for example, rows of icons in the style of an iOS/Android home screen) are provided. For content boxes, as well, it is sometimes difficult to customize certain elements exactly to the designer’s liking.

In the end, sacrificing complete control over the design and appearance of the Web site was well worth the time and effort saved. However, Mobile Site Builder could not help with a major hurdle for the project—the OPAC. The experience of other libraries reported in the literature indicated to us that a mobile catalog is an essential feature for any library mobile Web site.⁵ Merely linking to the full version of the catalog and



Figure 4. AirPAC main screen

4,460 people visited this site



Figure 5. HKBU Library mobile usage data (January 9 to April 10)

expecting users to navigate that interface on their smartphone screens was deemed unacceptably detrimental to the user experience. How best for a small academic library to approach this problem?

AirPAC

Larger university libraries have been able to develop their own mobile catalogs in-house, and have enjoyed success in doing so.⁶ For smaller institutions, even if the expertise is available, the demands of other projects and time constraints may make this approach unfeasible. The only other solution is to implement a vendor-supplied mobile version of the catalog.

Given the importance placed on the inclusion of the catalog on the mobile site, HKBU Library decided to purchase the relevant add-on module from its ILMs vendor (Innovative Interfaces, Inc). This module, called AirPAC, allows patrons to browse the catalog, check due dates, and request/renew library material on their smartphones.

The biggest issue HKBU Library had with this approach was the financial expense associated with the module, which was considerably greater than that of Mobile Site Builder. This was exacerbated by a glaring lack of customization options. The only real

visual change that could be made was the addition of a customized logo to the top bar (see Figure 4). Even the color scheme cannot be altered. These issues were subjected to considerable deliberation, but ultimately the fact that AirPAC would allow us to hasten the release of the mobile Web site was the deciding factor.

Once the vendor had installed the module, it was a straightforward matter to provide links to it on the mobile Web site. We also instructed the vendor to remove the “Library Information” page that comes as standard on AirPAC, and to replace it with a link back to the mobile Web site. In this way the mobile site and AirPAC were integrated in a similar manner to the full Web site and the OPAC.

Launch and reception

At the time of writing, HKBU Library Mobile has been live for about three months following its official launch on January 9, 2012. It is obviously early days, but the usage data that we have collected so far have been encouraging. Figures 5 and 6 summarize the web analytics data collected for the mobile site and AirPAC respectively (these are recorded separately for statistical purposes). We recorded over 4,400 unique visitors to the mobile site in the period from January 9 to April 10. This is quite a significant level of use given the size of the student and faculty population at HKBU.

As described in the preceding section, it is necessary for users to go through the mobile site in order to access AirPAC. It is thus interesting to note that the number of visits to AirPAC (9,324) is very close to the number of visits to the mobile site (10,314), suggesting that the vast majority of visitors make use of AirPAC. This lends support to

4,384 people visited this site



Figure 6. HKBU Library AirPAC usage data (January 9 to April 10)

the prevailing view that a mobile catalog is an essential feature for a library mobile Web site.

While these data provide a useful starting point, we intend to conduct a more fulsome evaluation of the project in the near future. This will include the gathering of qualitative feedback from our users.

Conclusion

Purchasing mobile products from vendors is not a perfect solution for all academic libraries in addressing the mobile needs of their users. There is far less scope for customization, and larger libraries with in-house programming capabilities may find that they can better serve their users by developing their own mobile offerings from scratch. However, for those libraries where the time, resources, and expertise to create innovative mobile applications are simply not available, the vendor approach allows for the rapid deployment of a robust Web site to meet user demand for mobile library services.

Notes

1. L. Johnson, R. Smith, H. Willis, A. Levine, and K. Haywood, 2011 Horizon Report (Austin, TX: The New Media Consortium, 2011).
2. Brendan Ryan, "Developing Library Websites Optimized for Mobile Devices," *Reference Librarian* 52, no. 1 (2011): 128–35.
3. Tiffini Travis and Aaron Tay, "Designing Low-Cost Mobile Websites for Libraries," *Bulletin of the American Society for Information Science and Technology* 38, no. 1 (2011): 24–29.
4. Cindi Trainor, "Planning for a Mobile Site," *American Libraries* 41, no. 4 (2010): 26.
5. Chad Haefele, "One Block at a Time: Building a Mobile Site Step by Step," *Reference Librarian* 52, no. 1 (2011): 117–27.
6. Laurie Bridges, Hannah Gascho Rempel, and Kimberly Griggs, "Making the Case for a Fully Mobile Library Web Site: From Floor Maps to the Catalog," *Reference Services Review* 38, no. 2 (2010): 309–20. *↗*

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