

University of Texas Mobile Library Search

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ABSTRACT

This demonstration will showcase a prototype Mobile application we built for accessing the library catalog at the University of Texas. The demonstration is intended to complement the short paper, Mobile Phone Search for Library Catalogs that will appear at ASIS&T 2010. In particular, we will provide attendees a hands-on experience seeing and using our interface, as well as an opportunity to discuss design alternatives and tradeoffs with us in person. We will show how MUT can provide library patrons with a faster and easier access via a customized mobile application.

Keywords

Mobile search, information access, interface design.

PROJECT BACKGROUND

While some libraries have begun to offer customized mobile applications for their online public access catalogs (OPACs), little research has investigated the relative costs vs. benefits associated with developing such applications. While these technological advances suggest a variety of promising opportunities, our community lacks a detailed understanding of the capabilities and costs associated with developing customized catalog access applications for this latest generation of mobile devices.

To explore these questions “hands-on”, we designed, built, and evaluated a prototype catalog Mobile access application for University of Texas library catalog (MUT) based on the Google Android mobile platform. Our experience suggests such an application can be built to provide basic functionality with relatively little effort and deliver a significantly improved user experience in comparison to a traditional browser-based OPAC.

Before designing MUT, we surveyed similar applications and the standard features to determine best practices. Overall, current applications are similar to one another. The main difference is in the colors, layout and design of those elements that most, of the applications contained. The

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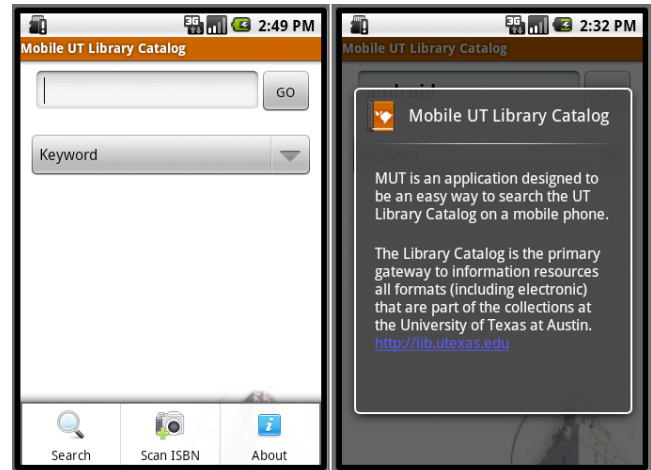


Figure 1. The MUT main view, menu bar, and “about”.

following trends were observed and incorporated into our design: 1) *Search box and button*: A typical interface for the library applications surveyed included a search bar with a “go” button on the same line, 2) *Search type options*: Also, a drop down menu that had selection options for searching by keyword, title, author, or other standard library options was common, 3) *Cover image*: Only a few more recent applications included a cover image, 4) *Author and title*: These elements were commonly included and received a prominent place, 5) *Status of book*: All applications except WorldCat included this, and it was usually prominent, 6) *Call number and location*: All surveyed applications included this metadata, 7) *Scan*: WorldCat was the only application that provided a scan option ISBN.

PROJECT DESCRIPTION

MUT is a standardized application based on our background research and built for a university library catalog to fit the look and feel of the University of Texas at Austin image. MUT is designed using the Android platform, a Java-based programming language. The free and open-source nature of the platform and the availability of an emulator and a test phone (the Motorola Droid A855) made the platform a good choice for our prototype.

MUT is made up of three search views: the front page where the search was conducted, a results list page with the title and author of up to fifty results, and an item view with details about a specific result (Figure 2, 3).

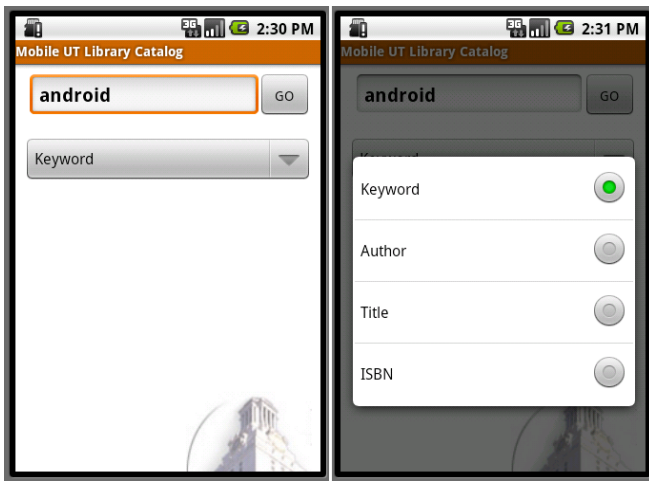


Figure 2. *Left*: the MUT search interface, and *right*: the four search types that users can choose from.

From the menu in MUT (Figure 1), users can also select “scan” option (Figure 3). This option scans the ISBN of a book and return whether or not the book is in the UT library. If it is, users can view details about the book in the same manner as if they had searched for the book. The detailed item page also includes four icons at the bottom that link to additional functions for the application: view the book on Amazon, email the book, place a hold on the book, and save the book to a personalized list (Figure 4).

The following guidelines are important to the MUT project. 1) *Task-specificity*: Each application should be focused on one task, 2) *Screen appropriate size*: The fit of custom mobile applications limits time and frustration for users, 3) *Library user services*: Added functionality of options such as “place hold”, “save”, and “Amazon” is a benefit, but should be used sparingly, and 4) *Automation of search*: The scan function reduces typing effort and errors.

Our experience suggests that in comparison to existing browser-based OPACs, libraries can build simple, well-liked mobile applications at relatively low cost and effort.

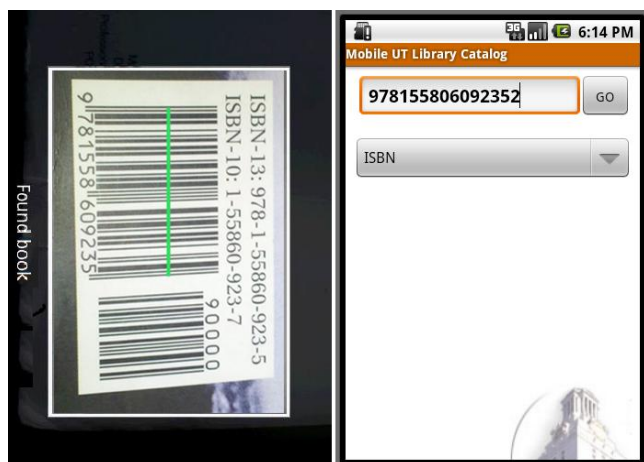


Figure 3. Search a book by scanning ISBN barcodes

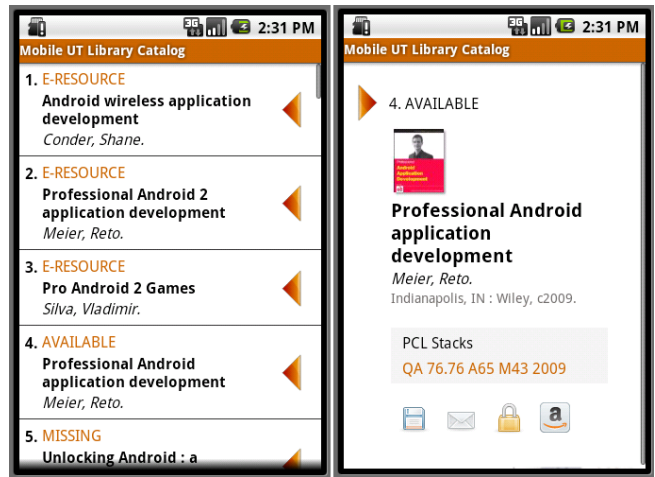


Figure 4. The search result list and the detailed item view.

We anticipate that mobile application maintenance will be relatively inexpensive by designing these applications as thin interface layers atop a maintained catalog access API.

We would like to support our short paper with this demo to help people better understand our application. Mobile applications are gaining traction in the community and a demonstration of MUT will help to stimulate ideas in those who are interested in such applications.

SUPPORTING EQUIPMENT

This demonstration will be performed on one or more Android phones which we will provide. We also have a video demonstration we can play if there is a computer with display provided; however, we do not consider the video to be necessary for the demonstration.

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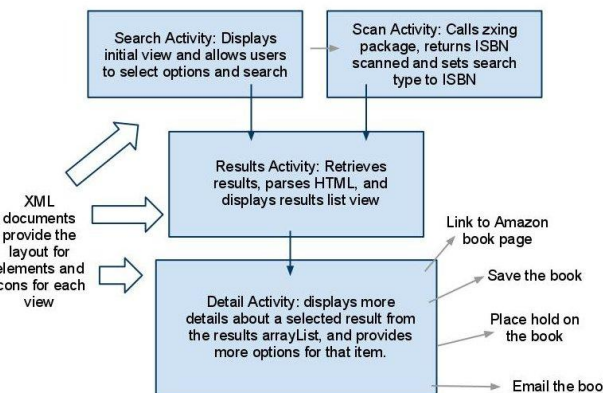


Figure 5. MUT's Android architecture consists of four main activities, two for searching, one to retrieve results, and one to show a detailed view of an item.