Mobile Device Applications for Libraries

www.bsu.edu/libraries/mobile

Developing a Small-Screen Handheld Mobile Device User Interface for Library Applications

Bradley D. Faust, Asst. Dean for Library Information Technology Services, Ball State University Libraries
Discussion Points

- Background on the Ball State University Libraries Mobile Initiatives
- Why continued interest in Mobile Development?
- Current Mobile Grant Project Overview
- Computer Availability Phase
- Mobile Site Upgrade Phase
- Digital Library Access Phase
Mobile Project Background

• Initial mobile project began in 2004
• A $15,000 LSTA Technology Grant supported most development work
• Outcomes included
  – A mobile device interface to our OPAC
  – A mobile device friendly list of Journals
  – A mobile device friendly library information base
  – Links to mobile device friendly Web site
Mobile Project Background

- 1\textsuperscript{st} grant ended in 2005
- Minor mobile Web site updates were applied until 2009
- In early 2009, we applied for a second LSTA Technology Grant
- LSTA Grant awarded in May 2009, and work began in July when we hired a Mobile Computing Developer
Continued Interest in Mobile

- Better, faster, higher capacity networks and handheld devices (said this in 2007)
- Price/performance of device ownership is improving
- Increase library resources and information access options
- Images, audio and video can be more easily presented on mobile devices
Current Mobile Grant Project

- Three Project Phases
  - Computer Availability Module
  - Updates to Existing Mobile Web Site
    - Site Redesign to support modern mobile devices
    - MOPAC (mobile OPAC) - update underway
    - Mobile Journals - update underway
  - Building a Digital Media Repository (DMR)
    - Mobile user interface (UI)
      - DMR is based on CONTENTdm
Computer Availability Module

• What is it?
  – It is a tool to allow students to identify areas in Bracken Library where computers are available

• How does it operate?
  – A computer agent installed on each public PC
  – The computer agent reports information back to a server where it is used to produce FLASH based floor plans, and the mobile UI
Computer Availability System

University Libraries

Computer Availability System > Bracken - 1st Floor

Bracken - 1st Floor
## Computer Availability Module

### University Libraries

#### Ball State University

**Library Computer Availability**

<table>
<thead>
<tr>
<th>FLOOR</th>
<th>NO. AVAIL.</th>
<th>% AVAIL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Level</td>
<td>31/51</td>
<td>61%</td>
</tr>
<tr>
<td>First Floor</td>
<td>64/142</td>
<td>45%</td>
</tr>
<tr>
<td>Second Floor</td>
<td>20/31</td>
<td>65%</td>
</tr>
<tr>
<td>Third Floor</td>
<td>52/64</td>
<td>81%</td>
</tr>
<tr>
<td>Fourth Floor</td>
<td>36/41</td>
<td>88%</td>
</tr>
</tbody>
</table>

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**Availability**

<table>
<thead>
<tr>
<th>FLOOR</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Lower Level</td>
<td>36/51</td>
<td>71%</td>
</tr>
<tr>
<td>First Floor</td>
<td>55/142</td>
<td>39%</td>
</tr>
<tr>
<td>Second Floor</td>
<td>17/31</td>
<td>55%</td>
</tr>
<tr>
<td>Third Floor</td>
<td>51/64</td>
<td>80%</td>
</tr>
<tr>
<td>Fourth Floor</td>
<td>36/41</td>
<td>88%</td>
</tr>
</tbody>
</table>
Existing Mobile Site Updates

- Updating the look and feel of the site
  - To work on iPhone and iPod Touch units
  - To work on other mobile devices
- Improving functionality of the existing applications
- Developing a new instructional video interface
- Updating and adding links to useful external mobile web sites
Mobile Site Updates

- Previous Homepage

Previous Homepage

Previous Homepage
Mobile Site Updates

CardCat Mobile

- Keyword
- Author
- Title
- Subject
- And Also...
- Search
- Home

http://www.bsu.edu/libraries/MOPA
Sample Videos - Nursing

Abdomen

Examination of the Kidneys

Describing Your Findings
Digital Library Access for Mobile

- **Context/Challenges**
  - CONTENTdm based Digital Media Repository
  - Multiple asset types: image, video, audio, compound objects, 3D, text
  - Streaming audio and video, how to deliver to mobile devices?
- **Application Development**
  - iPhone App or Web Application?
  - Who will develop it?
Why?

- To extend access opportunities to digital assets and objects in our collections
- To connect the DMR to an increasingly mobile client base
- To extend the value of research material
- To deliver multimedia objects that work well on modern mobile devices and networks
Digital Library Access for Mobile

- DMR Mobile UI prototype in iPlotz service
- iplotz.com/app/viewer.php?k=b709469a14b09b8071562ed9dd4dad1a&pr=6227&pg=6227_5&a=4830
Digital Library Access for Mobile

- Jing version of DMR Mobile UI Prototype
- [www.bsu.edu/libraries/lits/rtv/libmobilinit.htm](http://www.bsu.edu/libraries/lits/rtv/libmobilinit.htm)
Digital Library Access

- DMR Outreach at Ball State University
  - Microsoft Surface application
    - Ball State University Maps and Photos
  - Multi-platform PowerPoint Generator for CONTENTdm
    - BSU application
  - Catalog record links, embedded images, etc.
  - Mobile device access to the DMR assets
Grant Project Team

- **Bradley D. Faust**
  - Assistant Dean for Library Information Technology Services

- **Daniel J. H. Lakes**
  - Mobile Computing Developer

- **R. Todd Vandenbark**
  - Special Projects Developer

- **Project Co-Investigators**
  - Arthur W. Häfner, Ph.D., M.B.A., and
  - Bradley D. Faust, M.L.S.
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