Looking to the Mobile Future in Teaching & Learning: Making a Commitment or Observing from the Sidelines

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5TH INTERNATIONAL M-LIBRARIES CONFERENCE
THE OPEN UNIVERSITY (UK) & THE CHINESE UNIVERSITY OF HONG KONG
MAY 29, 2014
Coalition for Networked Information (CNI)

Non-profit association
Joint program of ARL and EDUCAUSE
Bridging library/IT interests in the digital environment
www.cni.org
Libraries in the Mobile Environment – My Focus

- Libraries working on innovation with the curriculum
- Library involvement in developing new educational content
- Innovative services meeting contemporary students’ style
- Strategies for putting resources into mobile technology and content development
I. Use of mobile devices in coursework

- **Motivations:**
  - Enable mobility, fieldwork, work from remote sites
  - Integrate a variety of resources conveniently on one portable device
  - Promote active learning
  - Enable students to become practitioners of the discipline, especially in fields like health care
  - Encourage student content creation, especially in multi-media
The versatility of tablet devices

- State of Tennessee
- Use iPads to:
  - Create – presentations, e-books, digital stories, videos, written materials, mind maps
  - Develop skills – reading, research, note taking, develop portfolio

http://emergingtech.tbr.edu/15-ipad-skills-every-students-should-have
**Are we ready for tablets at the university?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tr>
<td>• “Students are ready to use their mobile devices more for academics” (ECAR Undergraduate Students 2013)</td>
<td>• Students prefer smartphones and laptops to tablets (Ball State U. study reported in CHE 4/25/14)</td>
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<td>• “30% of e-content consumers are reading more now because e-content is available on new devices – 41% for tablet owners” (Pew Research Center, 4/10/14)</td>
<td>• Students prefer print textbooks to e-textbooks (Many studies)</td>
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A holistic institutional approach

“Fresno State is embarking on a bold student tablet initiative aimed at facilitating student success in content mastery and to build technology skill sets. We’re looking to redesign how we deliver support services to achieve this goal. The redesign would seek to integrate currently disparate support functions”

- IT help desk
- Teaching & Learning help desk
- Library (digital literacy & research, tablet check-out)
- Bookstore

Message posted by Philip Neufeld on EDUCAUSE ITSupportServices listserv 3/6/14
<table>
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<tr>
<th>Institution-centered</th>
<th>Library-centered</th>
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<td>• What are new teaching/learning initiatives that can utilize mobile devices/content?</td>
<td>• How can the library provide its services to users of mobile devices?</td>
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<td>• How can the library enrich student learning within the curriculum?</td>
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Classroom tablet program

Winona State U.

Classroom tablet program

News360

How does News360 work with publishers?
If you create content, chances are your feeds are already in News360, and we’re channeling our users to your site (you may have seen referral traffic from us already). If you can’t find your content in the app, then send a link to your RSS feed to publishers@news360.com and we’ll add it to News360 — it’s as simple as that. For larger publishers, we have what we call our News360 Publisher Partners program.

What does being a News360 Publisher Partner provide?
News360 Publisher Partners get more insight into readers that view their content in News360, additional branding on their content pages, and the ability to monetize their own content through our Promoted

http://www.winona.edu/it/classroomtablets.asp

http://news360.com/publishers/
Curricular innovation with iPads at Virginia Tech

http://www.vtnews.vt.edu/articles/2014/04/042514-univlib-digitalhistory.html

https://blogs.lt.vt.edu/c21s/
Supporting researchers in the field

- University of Guelph (Canada)
- Entomologist in Viet Nam – collecting data
- Political scientist in Ecuador – interviewing
- Library providing advice on research data infrastructure and management

http://www.cni.org/topics/mobile-technologies/f13-johnston-mobile/
Crowdsourcing: citizen science

What’s Invasive! Community Data Collection

Invasive species are a threat to native plants and animals, crowding natives, consuming food sources, or acting as fire hazards. We have found that having groups such as schools run short-term "campaigns" is highly effective for locating invasive species. Join the fight against invasive species!

Use your Android or iPhone to help us locate invasive species!

Step 1. Sign up
Step 2. Get the iPhone app or the Android app.
Step 3. Start collecting!

Find out how you can set up your own site so people can help in your area!

Select a Participating site:

Or set up your own site!

There are currently 303 registered users who have contributed 11542 observations of 224 invasive species in 115 active sites!
Supports faculty research, gathering Twitter feeds from Congress and news organizations

Collects tweets from university and student organizations for the Archives collection

Supports teaching and use of twitter in class activities

Developed by GWU library
II. Developing content for mobile devices

SUNY Open Textbooks

3 projects at CNI meeting

http://opensuny.org/omp/index.php/SUNYOpenTextbooks#

http://www.youtube.com/watch?v=VY_Y8Z5MaH4&feature=youtu.be
Linking smartphones to local content

Goethe & Pratt Institutes

NC State U. Library

http://www.germantracesnyc.org/

http://www.lib.ncsu.edu/wolfwalk/
Libraries are leveraging geo-spatial capabilities with local information

- TagWhat
- Virginia Beach PL, National Trust, and others
- Users experience the “hidden stories” of places they are visiting
- Historic photos, video, and audio are connected to places
- "The library's kind of like an iceberg; we have all this cool stuff that nobody ever sees or knows how to get to," Hart said. "What we're trying to do now is tell people, and we're using this augmented reality app to do it."
BirdGenie

App sold through a university press

Record a bird’s song and the app will identify it for you

Also provides audio samples and photos

BirdGenie is a remarkable app that enables anyone with a supported Apple® or Android® smartphone or tablet to identify birds in the backyard, at the local park, or on the nature trail—all with the tap of a button! It’s like Shazam® for nature—just hold up your phone, record the bird singing, and BirdGenie tells you what bird it is!

Each regional app contains eighty vocalization types for sixty bird species, covering almost all of the birds you are likely to encounter. When you hear a singing bird and make a clear recording with your smartphone or tablet, BirdGenie identifies the bird if it is an included species, tells you exactly how confident it is that the identification is correct, and provides audio samples of the bird's various songs to compare with your own recording, as well as color photos, useful information, and links to further reading. You can attach comments, photos, and other info to your recordings, track your history with a convenient log, and easily share everything with friends and other users. Even better, no internet connection is needed, making BirdGenie accessible everywhere you go.

An incredibly enjoyable app for anyone who wants to know what bird they're listening to, and a perfect tool for teaching and learning, BirdGenie takes bird identification to a whole new awesome level.

With BirdGenie you can:

- Quickly identify most birds by recording their songs
- Look at vivid images of the bird—some in 3D!
- Listen to samples of the bird's various songs and compare them with your recording
- Keep a log of all your recordings
- Attach comments, photos, and other info to share with friends and other users on Facebook, Twitter, and Google+
- Find out useful details about the bird, such as what to feed it
- Read further about the bird species on the Web through BirdGenie’s recommended links
- Browse the regional built-in catalog for sixty species to learn even more and hear other songs
- Use the app anywhere—no internet connection required!

Technical Specifications:

http://press.princeton.edu/titles/10411.html
New types of reference tools are being developed

- Leaf snap app
- An electronic field guide
- Take a photo; app helps identify species
- Uses techniques built on face recognition
- Developed by U. Maryland, Columbia U., & Smithsonian

http://leafsnap.com/
III. New Modes for Services

NC State U.

Instruction Support Services

NCSU Libraries Mobile Scavenger Hunt: Not your typical library orientation

Request a Scavenger Hunt for your class

The NCSU Libraries Mobile Scavenger Hunt is a unique, interactive way to introduce students to the sometimes overwhelming library environment. Students are assembled into teams and given fifteen questions about the Libraries’ spaces, services, and collections. In this fast-paced game, they have just 25 minutes to answer as many questions as they can.

Each team uses an iPod Touch from the Libraries’ technology lending program to submit their scavenger hunt answers through Evernote, a free, cloud-based multimedia note-taking app. Students submit text or photographic answers, and staff keep score in real time by monitoring the teams’ shared Evernote notebooks. At the end of the scavenger hunt, the teams reconvene to learn their scores, see their pictures, and get the answers to lingering questions about the library. The winning team gets a prize!

By the end of the activity, students haven’t just learned about the library; they have interacted with it by exploring its spaces and the website. They have taken photos with a librarian, and have found a book in the stacks.

http://www.lib.ncsu.edu/instruction/scavenger.html

U. Houston Downtown

UHD Library Orientation

- Goal 1: Orient students to library resources and services
- Goal 2: Increase student retention of material
- Goal 3: Reach out to students beyond traditional library instruction sessions
- Goal 4: Increase “approachability” of librarians for students

http://goo.gl/YjIV8
A computer science major commented on the loaning of Google Glass by the library at Claremont University Consortium:

“I think it’s going to change the way we relate to information," he said. "It’s a device that needs to be experienced and not described, and one demo unit is a step in the right direction.”
Google Glass
UC Irvine Medical School
Will be incorporated into anatomy labs, medical simulation center, ultrasound institute, clinical skills center, and basic science lecture hall

Telepresence Robot

Mobile reference

Visits to classes, labs by librarians

Flickr.com  Photo by Anders Sandberg CC BY-NC 2.0
Chat Robot
Tsinghua University Library

http://166.111.120.164:8081/programd/
Mobile technology research for people with impairments

University of Maryland

Welcome!

We're an interdisciplinary group of researchers at the University of Maryland focused on making the next generation of computing technology more accessible. We work primarily on mobile and wearable technologies for people with motor or visual impairments, older adults and children. We're part of the larger Human-Computer Interaction Lab (HCIL).

Projects
An overview of our active research projects.

Participation
We're always looking for new participants and partners. Come join us!

HCIL
Learn more about the Human-Computer Interaction Lab.

Funding sources
Past: Google

http://inclusivedesign.umd.edu/
Mobile technology research for people with impairments

- Signglasses
- Developed at Brigham Young University
- Projects a sign language interpreter on the glasses
- Students involved in project development
- Working with Georgia Tech on additional application tying a dictionary to glasses to provide definitions for words found in books

IV. Going forward at your institution

- Know your users
- Kent State U. Library survey
  - “In every focus group, we heard the same thing: students were not only interested in getting basic information from a mobile web site, they also desired greater interactivity... and envisioned being able to read, chat, and connect to resources...they expressed a desire for a customizable experience and found design to be very important.”
  - Seeholzer & Salem, “Library on the Go.” C&RL v.27, No. 1, Jan., 2011, p. 18

- Know your users
- U. Texas San Antonio Library
  - Used their Music Online collection to create playlists
  - Marketed through Facebook and accessed via QR codes
  - Usage increased 41% in month of campaign
Partner to gain expertise

- Professional institutional partners
  - Information technology
  - Center for teaching & learning
  - Instructional technology
  - University press

- Partnering with students
  - Hiring highly qualified students part-time
  - Developing contest for apps

Making a commitment or sitting on the sidelines

Advice from Tim Flood, one of the developers of iStanford:

“The mobile environment is just not going to make a stop so you can take your time getting on the bus. You have to accept continual development and change surrounding the industry and mobile applications, and adapt... These two mantras we've had for a long time in higher education—wait for standards and plan ahead on all aspects of your project--served us very well in other contexts, but not here, now, today, with mobile. The technology change we face today challenges us to re-examine how we think and act as we begin our mobile projects...
I think the single biggest gift that an institution could give itself in terms of mobile, would be simply to "dive in.” Do something quickly. Do something of consequence without really trying to think it through to every last detail...
So when we're considering an institution's willingness to explore mobile technology, I'd keep this broader perspective in mind: We're not just talking about implementing technology! We're ultimately talking about an institution's identity, its image, its perceived relevance--and perhaps its survival.”

http://campustechnology.com/Articles/2012/04/18/Mobile-Relevance.aspx?CTCLV&p=1
Thank you!
Joan talking with Bryan Alexander (telepresence robot) at ELI Conference 2014

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http://www.cni.org/about-cni/staff/joan-k-lippincott/