Reorienting Libraries for Today’s Students

Joan K. Lippincott
Coalition for Networked Information
LAUC - Berkeley
October 23, 2009
Today’s Students: Who are they and what do they want?
Would it make a difference...

- If we called these students learners and knowledge seekers rather than library users?
- Group study room - U. Utah Library
Would it make a difference...

- If we focused on developing **physical and virtual learning environments** rather than libraries?
- GIS workstation and display in NC State U. Learning Commons
Learners

- U. Minnesota Biological Sciences Intro Course
- Students watch recorded lectures as homework
- Problem-based learning in class
- Students as agents of their own learning
- Classroom space and technology supports pedagogy
- Robin Wright, U. Minnesota
Learners

- Problem-based learning for freshmen engineering students
- Problems include need to gather information
- Pedagogy and learning space complement each other
- Professor does not “cover content;” students learn the practice of the discipline
- Wendy Newstetter, Georgia Tech
Knowledge seekers and creators

Student Video Projects at Dartmouth

Gallery of Projects

If you experience technical difficulties when trying to view the projects, go to the Site Technical Support Page for troubleshooting download QuickTime.

Arabic 3: First Year Courses in Arabic
Instructor: Prof. Diana Abouali and Lorice Kasbari (two sections)
Assignment:

Art History FSP in Florence
Instructor: Prof. Adrian Randolph
Assignment:

http://www.dartmouth.edu/~videoprojects/gallery.html
Content creators: while technology skills vary...

- 67% of students in grades 9-12 maintain a personal website.
- When asked what they do regularly with technology for schoolwork, 27% of K-12 students said they create slideshows, videos, and/or webpages.
- K-12 students want to use their own devices in learning.

Project Tomorrow [http://www.tomorrow.org/speakup](http://www.tomorrow.org/speakup)
A spoof of Justin Timberlake's "Sexyback" done by the University of Alberta 2010 Med class. Wenckebach is a type of cardiac arrhythmia. http://www.youtube.com/watch?v=GVxJJ2DBPiQ
Creators and visual learners

http://www.moodjam.org/
Reorienting our thinking and conceptualizations

- Understanding our users
- Enhancing our services
- Revitalizing our facilities
- Promoting what we offer

NC State U. Learning Commons
Our users are connected

- 98.5% of respondents own a computer
  - 82.2% own a laptop
- Respondents spend an average of 19.6 hours/wk online
  - Engineering students have highest use
- 85.2% use social networking sites like Facebook and MySpace

The ECAR Study of Undergraduate Students and Information Technology, 2008
Kids “consider their mobile phone to be their best friend.”

- If you had to give up all but one device - desktop computer, laptop, MP3, tv, game console, mobile phone - which would you keep?
- US & UK kids chose mobile phone

http://www.flickr.com/photos/studentsforhumanity/3522628341/

Mobile Life Report 2008 www.mobilelife2008.co.uk
They use their devices

- Harvard Medical School survey of students 2007
  - 52% own a PDA
  - Application with most use: reference info with 26% of respondents; only 6% subscribe to podcasts
- As reported in “Waiting on the Wave,” Campus Technology, March 2007 http://campustechology.com/articles/452441
They share all kinds of information

- Via Facebook
- Blogs
- Wikis
- Flickr
- YouTube
- Texting
- Course management systems
- Library Thing
The mindset of some first-year graduate students...

- Hard copy has nothing to do with a TV show; a browser is not someone relaxing in a bookstore; a virus does not make humans sick; and a mouse is not a rodent (and there is no proper plural for it).
- Recording TV programs on VCRs became legal the year they were born.
- They were born the same year as the PC and the Mac.
- They have always had access to email.
- Beta is a preview version of software, not a VCR format.

"One of the most interesting claims made by Clay Shirky in his article is that we are living in the midst of an internet revolution. While I can see how the idea may connect with older generations, I feel that this revolution is not as significant with younger generations. As a member of a generation that has grown up with the internet, it is not unusual for me to use the internet as my first source of information for research and learning. Newspapers are quickly becoming outdated, but I feel that the current and future generations are not feeling the effects of this revolution because, in a sense, we were never connected with it. As a child, I only read the newspaper for the comics, and today, when news is important, I go to google news before I open a paper. For older generations that feel a connection to the newspapers, it is harder to let go, but frankly, from my own point of view, I find it hard to be concerned about the death of the newspaper."

http://courseblogs.gardnercampbell.net/baylor_nms_s09/

This was a student response in a course blog - Prof. Gardner Campbell at Baylor U.
Some will forge academic careers in areas related to new technologies

http://ksuanth.weebly.com/wesch.html

http://website.education.wisc.edu/steinkuehler/blog/
Others run into the realities of producing academic work in a conservative climate

- Multi-year project on gamers by Raymond Yee
- “...the time it takes to run Daedalus began slowly to directly compete with the time I could spend writing an academic paper...”

http://www.nickyee.com/daedalus/
Most will go into careers, outside academe, where they will use technology and produce digital content every day.

http://www.flickr.com/photos/janet_powell/303262305/
Did you know...

- 46% of undergraduate students believe they are “very skilled at using the Internet to effectively and efficiently search for information; 33% believe they are “expert” in this regard.
- Less than half say they are “very skilled” or “expert” in understanding ethical/legal issues related to access and use of information.
- ECAR Study of Undergrad Students and IT, 2008
The MIT Photo Diary study identified these areas for action:

- Discovery and search need to be easier
- Embed trusted resources in finding tools, e.g. links, relevancy, recommender aspects
- Put links to MIT libraries from “where the users are”
A report from U. Minnesota identified these trends:

- Users are discovering relevant resources outside traditional library systems
- Discovery increasingly happens through recommending
- Our users increasingly rely on emerging nontraditional information objects
Do librarians have a genuine plan that:

- Provides an environment that facilitates the way learners and researchers use information today?
- Provides intuitive paths for learners and researchers who have not had formal contact with information literacy programs or who do their work from outside the library?
- Presents information in clear, understandable, and actionable ways?
Enhancing our services

- Connecting students with information
- Rethinking information literacy
- Offering content and services for mobile devices
- Targeting graduate students
Inviting learners to connect

- Meeting students on both intellectual and emotional levels

NC State U. Learning Commons
A father and part-time student in the UK says...

“a central repository of information, approved by the university, would help learners locate online resources more efficiently, citing Wikipedia as an example of such a repository.”

Reported in JISC. *In Their Own Words*, 2007
Personal connections

- Librarian photos and specializations on display at Penn State U.
- Twitter feed on undergraduate library page at U. Illinois U-C
Inviting students to partner on information literacy materials

- U. Colorado health sciences students created this guide to medical literature
Working with faculty on rubrics

- Faculty seek assistance for evaluating media-based projects
- Rubrics for podcasts - Northern Arizona U.
- Canadian Glacier Inventory Project - student involvement at McMaster U.

http://itunes.nau.edu/resources/rubric.html
Deep engagement with faculty at UC Berkeley

"... we should teach people to be responsible for their own learning ... I want to guide them, to coach them into finding things out for themselves ... to learn by doing ... Research is a kind of practice ... it's a very active, very creative process."  

2003-2004 Mellon Faculty Fellow

Mellon Library/Faculty Fellowship for
UNDERGRADUATE RESEARCH
UNIVERSITY OF CALIFORNIA, BERKELEY

Research-based learning -- endorsed by the Boyer Commission in *Reinventing Undergraduate Education: A Blueprint for America's Research Universities* -- has the potential to invigorate undergraduate education. Successful implementation requires attention be directed toward developing students' abilities to thrive in this type of environment, supporting instructors' exploration of new teaching approaches in the classroom and online, and providing institutional resources to transform course curriculum while supporting the collaborations needed for sustainability.

The University of California, Berkeley is committed to leveraging its research strength to enliven undergraduate learning by engaging undergraduates in research-based activities. Institutional support for this initiative has been provided at many levels along with a shared commitment from administrators, faculty, librarians, educational technologists and other pedagogical experts to

- redesign courses and assignments;
- re-energize large enrollment and core courses;
- enable students to develop information and critical thinking skills both within and outside of the classroom.

Key components of the Berkeley plan include

- building a community of faculty dedicated to exploring new approaches for research-based learning;
- developing a library reconceived as a center for learning and instructional expertise; and
- creating opportunities for academic support units to work collaboratively to provide consultative support to faculty that can inform course design and implementation.
Working with honors students in undergrad organic chemistry course

- Brandeis U.
- Assignment: animate a chemical reaction mechanism
- Library and Information Technology Services:
  - Provide
  - Advise
  - Instruct
  - Connect
  - Capture

http://www.chemtube3d.com/

www.nercomp.org/data/media/FergusonNERCOMP100909.pdf
Library-sponsored contests

- Sparky awards at Penn - outgrowth of institutional contest
- Cornell Libraries Digital Literacy Contest
Providing services to an increasingly mobile world

- 80.5% of college students own a laptop
- 66% of college students own an Internet-capable cell phone
- 71% of teens 12-17 owned a cell phone in 2008 compared to 45% in 2004

http://www.flickr.com/photos/shapeshift/707543617/

ECAR Study of Undergrad Students and IT, 2008; Pew Internet, “Teens and Mobile Phones,” 2009
What do you think of when you hear the words “mobile” and “libraries”?

- Typically
  - Access to library hours, catalogs, etc. via a mobile phone
  - SMS text messaging to-from reference staff
- But, there is more...
Can we develop a cohesive strategy for these devices

- Bringing together
  - Library general information
  - Patron records
  - Reference transactions
  - Information literacy podcasts and videos
  - Access to services - booking group rooms
  - And...
Can we develop a cohesive strategy for these devices

- Access to digital content configured for mobile devices
  - Catalogs, indexes, abstracts
  - E-books, journals, image and media collections
  - Library owned or licensed
  - Freely available on the web
- Geo-spatially linked information
- Loan of devices
- New technologies - what’s next?
  - Social networking?
  - QR Codes?
Bringing it together

U.Va. Library Mobile

M.LIB.virginia.edu: Ubiquitous Mobility.


- "Hi-def" experience for iPhone/iPod, Android, Palm WebOS, webkit browsers
- "Low-def" experience for Blackberry, Samsung, LG, practically any other device

In an effort to expand access to online resources and services, the U.Va. Library is developing an updated version of the website that is optimized for handheld, web-enabled mobile phones and devices.

- Presentation: "Capabilities-driven Mobile Web Development" at dUI Conference 9/22/09 (PDF) →
- Presentation: "U.Va. Library Mobile" at U.Va.'s "Mobile Awareness Conference" (PDF) →

Current release: 1.8 alpha contains known bugs and features which are subject to change.

Features

- Ability to perform "one search" and see results from Virgo catalog and thousands of periodicals/journals (via Summon API)
- "High graphics" version supports newer PDAs with a webkit browser
Bringing it together

- Academic/Library/IT Collaboration
- Physician Assistant Graduate Program
- 2007 Smartphone pilot working with IT and Library; now full implementation
- 3 key applications including *Merck Manual*
Addressing grad student needs: thesis/dissertation writers may need

- Tools, not just information resources
- High-end software and/or hardware
- Social spaces (physical and virtual) during their research phase
- To understand IP

http://www.flickr.com/photos/kypkanomin/2459416956/
Welcoming grad students as partners: they can be Open Access advocates

- CalTech Ph.D.
- Meta-analysis of 50 years of geo-chemical data
- Wanted to publish electronically because all research should be reproducible and verifiable
- “Gave back” 50 year dataset as part of thesis

http://www.youtube.com/watch?v=Q_knW4UVpdE&feature=related
Supporting grad students as teachers (TAs)

- Ask them to co-design and/or co-teach information literacy classes
- Offer assistance in developing assignments and grading rubrics
- Get straightforward feedback about information literacy sessions

http://www.flickr.com/photos/smannion/3385143768/
Consider new programs and services for grad students

- Dissertation writing groups (collaborative learning)
  - Provide group rooms
  - Offer to meet for open Q&A or tutorials
  - Set up virtual spaces
  - Partner with Writing Center to offer “lit review” workshop
  - Partner with Graduate School and IT to offer ETD workshops
  - Push information on IP
Consider new programs and services for grad students

- Encouraging interaction
  - Chapter sharing events
  - International student get-togethers
  - How to publish programs with faculty speakers
  - Coffee hours
Know your students: assessment

- NYU learned from needs assessment of their grad students to:
  - Develop collaborative spaces
  - Segment, retime, and recast services
  - Develop better promotion through diversified messaging
Revitalizing our facilities

- Information/learning commons
- Multi-media production
- Support of data-intensive projects

U. Utah Marriott Library
Carleton College Viewing Area
NC State Learning Commons
Georgia Tech Commons
Tilburg U. (Netherlands) Montesquieu Learning Centre
Practice Presentation Room at Georgia Tech
Collaboration Studio

Learning Spaces > Collaboration Studio

The Collaboration Studios facilitate in-person, interactive, small group projects or meetings. Group members can collaborate through shared desktop displayed on a large 52” plasma screen, visible to all group members. By using Tidebreak TeamSpot software, group members have remote control of the shared desktop through their own computers. The software also allows the sharing of files and information between the shared desktop and any of the member’s computers with a simple “click and drag” operation.

LOCATIONS AND HOURS

<table>
<thead>
<tr>
<th>Collaboration Studio</th>
<th>Locations</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Collaboration Studio 1</td>
<td>Suzzallo 1st Floor</td>
<td>Suzzallo-Allen Library Hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No Reservation Required</td>
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U. Delaware Student Multimedia Design Center
U. Pennsylvania Weigle IC
Purdue U. Envision (3-D) Theater
Promoting what we offer
Promoting Services: Arizona State U. Library Channel

Description: Guest curator, Professor Emily Umberger of the Herberger Institute for Design and the Arts, with the students of her Art History seminar class studying 16th Century Mexico selected and researched the Mesoamerican codex facsimile reproductions in the Special Collections of the Archives and Special Collections at the ASU Libraries.

This colorful and unique exhibit includes facsimiles of Aztec, Alcalhua, Mexico, Mixtec, and Maya court documents, maps, historic, and Pre-Hispanic records of text and imagery of several Spanish Colonial Period and PreColumbian manuscripts. The display will be on exhibit until September 2099.

For more information, please contact:
Karrie Porter Bruce
Curator/Museum Specialist Senior
Archives and Special Collections
Arizona State University Libraries
P.O. Box 871006
Tempe, Arizona 85287-1006
Phone: (480) 965-4925 Fax: (480) 965-0776

Library Minute: RefWorks

Location: All locations, Downtown Phoenix campus, Hayden, Library Minute, Music, Noble, Noble Library, Polytechnic campus, Video, West campus, architecture, podcast, resources

This week AnaL talks about RefWorks, a bibliographic citation manager which allows you to create a personal database of the references you use for your research. RefWorks allows you to import and organize citations from research databases, the libraries catalog and Google Scholar all in one place.

RefWorks also works with Write-N-Cite to help you include your citations as you are writing papers in Microsoft Word.
What Does Google’s Library Guide Look Like?

Need 5 sources for your paper at 3am?

Can’t remember where you found that quote? Did someone grab the last copy of the book you needed from the library? Google Book Search can help!

With midterm deadlines coming up we wanted to share tips on how Google Book Search can help with your research.

Search the full text of over 7 million books

On Google Book Search, you can search the full text of over 7 million books in 40 languages, right from your dorm room. Start your search with a title or author, or use Advanced Search to browse by language, subject, or date published.

Browse books online

When you click a book result, you’ll be able to see anything from a few short excerpts to the whole book. If a book is out of copyright, you can read the whole title, download it, and print a full copy.

Dig deeper - Useful information to help your search

When you’re on a book, click the “About this book” tab on the top left of the page to find a table of contents, related books, references to the book from the Web and academic sources, and even a map of places mentioned in the book.

Keep track of all your sources

With My Library, create a personalized set of books that you can search and label. Labeling is a great way to keep track of sources. You can have one label for your History paper and another for that Spanish essay due last week. To start, click “Add to my shared library” under a book result or on the right-hand column when viewing a book.

Find books in your college library

For every title in Google Book Search, you’ll see a link to find the book in a library. If you’re connected from campus, we’ll show you where you can find the book right in the stacks of your university library.

© 2006 Google
Promoting what we offer

- Clearly marking quiet space is especially important in libraries with some areas for collaborative work (College of William & Mary)
- Making services such as scanning equipment visible promotes use (NC State U.)
Promoting Services: Western Illinois U. Libraries

- Text Me service
- In the online catalog, users can click on “text me this call no.,” input a cell phone no., and the call no. is sent to the user’s phone
- Promoted through video on YouTube

http://www.youtube.com/watch?v=2yjlz1zZ1cU
April 20: Natural Connections

About the Film

Ecology: from individuals to ecosystems
Michael Begon, Colin R. Townsend, John L. Harper
Hodges Library QH541.B415 2006

Handbook of biodiversity methods: survey, evaluation and monitoring
edited by David Hill ... [et al.]
Hodges Library QH541.15.B56 H363 2005
Conclusion: What do they want?

- Learners and knowledge creators need services that:
  - Link them to content that they need in formats that they prefer and in efficient and effective modes
  - Assist them in becoming practitioners of their disciplines
  - Assist them in accessing and using technology they may not be able to afford or apply in their academic work
Conclusion: What do they want?

- Learners and knowledge creators need facilities that:
  - Promote active, collaborative learning
  - Provide a mix of types of spaces, equipment, and seating
  - Clearly describe what they offer
  - Engage and enhance learning and a sense of the library as a cultural center
Conclusion: What do they want?

- Learners and knowledge creators need connections with librarians and library spaces that are:
  - Integrated with their learning and research
  - Personal
  - Social
  - Responsive to their modes of communication
You can substitute “college graduates” for “digital natives” in this quote:

“Digital natives are tremendously creative. It is impossible to know whether they are more or less creative than prior generations, but one thing is certain: They express themselves creatively in ways that are very different from the ways their parents did at their age… Digital Natives will move markets and transform industries, education, and global politics… The biggest concern…is the impact of the participation gap. The digital world offers new opportunities to those who know how to avail themselves of them. These opportunities make possible new forms of creativity, learning, entrepreneurship, and innovation.”

How can we help them achieve this promise?

- It’s up to you!

http://www.flickr.com/photos/asiaticleague/147448677/
Thank you!

- All photos used from Flickr have Creative Commons licenses
- joan@cni.org

The Link - Duke University