Perceiving and Shaping the Future of Academic Libraries

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NITLE
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FUTURE OF THE LIBRARY
Recent Books about the Future of Libraries

1. Access, delivery, performance: the future of libraries without walls
2. Digital convergence: libraries of the future
3. The impact of electronic publishing: the future for publishers and librarians
4. Joint-use libraries: libraries for the future
5. Surviving the future: academic libraries, quality, and assessment
6. Future concepts of library & information services: changes, challenges and role of library professionals
Roadmap for Today’s Talk

- Why are we so obsessed with the future of libraries?
- How might we discover and demonstrate the value of libraries?
- What might be emerging roles for the library?

http://www.flickr.com/photos/electrichamster/96531540/
Why Are We So Obsessed with the Future?

http://www.flickr.com/photos/35378394@N03/3280622749/
“The Four Horsemen of the Library Apocalypse?”

- Unsustainable costs
- Viable alternatives (e.g. Google Books)
- Declining usage
- New patron demands

Education Advisory Board, Redefining the Academic Library
<table>
<thead>
<tr>
<th>Category</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decline in reference requests, 1995-2005 (ARL average)</td>
<td>47%</td>
</tr>
<tr>
<td>Decline in circulation at academic libraries, 1992-2006 (NCSE 2006 stats)</td>
<td>37%</td>
</tr>
<tr>
<td>Post-1990 books at Cornell Libraries that never circulated</td>
<td>55%</td>
</tr>
</tbody>
</table>
## Indicator: Growing Significance of Digital

<table>
<thead>
<tr>
<th>Category</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serials subscriptions [total]</td>
<td>$1,786,083,064</td>
</tr>
<tr>
<td>Electronic serials</td>
<td>$1,249,726,269</td>
</tr>
</tbody>
</table>

“One of the most serious threats comes in the form of competing service providers that focus more on improving their services than they do on improving their users.” (Rick Anderson, Collections 2021)
**Then vs. Now**

<table>
<thead>
<tr>
<th>THEN</th>
<th>NOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources Scarce</td>
<td>Attention Scarce</td>
</tr>
<tr>
<td>Attention Abundant</td>
<td>Resources Abundant</td>
</tr>
</tbody>
</table>

Library as intermediary

Many sources of information

Lorcan Dempsey in “Libraries of the Future”
What Indicators of Disruption Do You See?
What are the greatest risks facing research libraries? Among them:

- “Availability of online and other resources (e.g., Google) may weaken the visibility and necessity of the library.
- User base erodes because library value proposition is not effectively communicated.”

Departments or budget officers ordered and managed information resources instead of librarians?

Student Affairs provided study & collaborative space?

IT provided research & instructional support?
What Makes the Library Unique...

- Acts as a *commons*: we have access to more and a better-managed collection if we share.

- Provides *spaces and resources for knowledge creation*: mix of collaborative and quiet, sandboxes & reading spaces.

- Offers *services* that leverage expertise in finding, organizing, curating and preserving information (and increasingly publishing).

- Creates *personal* connections.
How to Prepare for an Uncertain Future

Trendspotting, Futures, Design Thinking, Entrepreneurial Thinking

http://www.flickr.com/photos/photojonny/2268845904/
Big Data Is a Big Trend

Big Data's Mass Appeal: A Special Report

The Humanities Go Google
By Marc Parry
New tools like the search engine's digital library

The Rise of Crowd Science
By Jeffrey R. Young
Led by astronomers, scientists are breaking free

Shift to Mobile Platforms

<table>
<thead>
<tr>
<th>Category</th>
<th>Stat</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of people in US with who own cell phones</td>
<td>88%</td>
</tr>
<tr>
<td>% of US adults who use their cell phones to go online</td>
<td>55%</td>
</tr>
<tr>
<td>% U.S. adult cell phone owners who “use their phone for most of their online browsing.”</td>
<td>17%</td>
</tr>
<tr>
<td>Number of ebooks Amazon sells for every 100 print books</td>
<td>105</td>
</tr>
<tr>
<td>% of US adults who own tablets (2012)</td>
<td>25% (compared to 4% in 2010)</td>
</tr>
</tbody>
</table>
The Rise of Networked, Digital Learning

MOOC Madness
An inside look at the latest phenomenon in online learning. In this special report, we look at the hype, the hope, and the details—and offer the voices of the pioneers, converts, skeptics, and the undecided.

Use Scenario Planning to Anticipate Possibilities and Confront Uncertainty

- **What**
  - A set of stories for exploring different possibilities in an uncertain future

- **Why**
  - Get beyond paralysis, a focus on near-term and customary ways of thinking
  - Prompts conversation
  - Sparks creativity in addressing challenges & opportunities
Scenarios for the Future of Higher Ed, 2022

DIY U

FOR $ALE

NETWORKED LOCALISM

http://www.flickr.com/photos/wurges/5083023574/

http://www.flickr.com/photos/techcocktail/6887245603/

http://diyubook.com/
1. DIY U

- Students assemble an education from different providers, many of which are open.
- Learning happens anywhere, via mobiles.
- Learning analytics tools track student progress.
- There are a few star faculty, plus roving discussion leaders & researchers for hire.
- Researchers affiliate w/ universities for access to data & tools.
- Researchers depend on open access publications & try to build a reputation by openly sharing their work.
2. For sale

- Government funding for higher ed has dried up
- Tuition continues to rise, closing out less wealthy students
- Corporations become primary sponsors of research, focusing on applied work
- Liberal arts education declines in the face of a desire for a “marketable” education
- For-profit education takes off, with support from corporate sponsors.
- Data is proprietary
3. Networked localism

- Colleges distinguish themselves by offering place-based, experiential learning, both locally and abroad.
- Location-aware mobile services offer targeted information.
- Telecollaboration connects students & researchers seamlessly.
- The demand for lifelong learning increases.
- Colleges are viewed as local hubs of innovation; many specialize in collecting & analyzing local data, contributing to larger networks.
Making Sense of the Scenarios

- What are the strategic implications of each scenario for WPI’s library?
- How should the library prepare for such a future?
- What services would be needed?
- What skills would librarians need to develop?
Sources for Futures Thinking about Libraries & Higher Ed

- Bryan Alexander, “Stories of the Future: Telling Scenarios” and other NITLE Futures work
- ARL 2030 Scenarios
- ACRL, Futures Thinking for Academic Librarians: Higher Education in 2025
- Library of New South Wales, The Bookends Scenarios: Alternative futures for the Public Library Network in NSW in 2030
How Do We Respond to Disruption? “Thinking the Unthinkable”

Clay Shirky

“Society doesn’t need newspapers. What we need is journalism.”

“'If the old model is broken, what will work in its place?' The answer is: Nothing will work, but everything might. Now is the time for experiments.”

How Can We Solve Wicked Problems?

NITLE Innovation Studio

STUDIO SCHEDULE: PRE-SYMPOSIUM

Introductions
Challenge 1: Pitch Contest
Challenge 2: Forming Teams and Creating a Project Charter
Challenge 3: Defining the Thorny Problem
Challenge 4: Understanding Users
Challenge 5: Interpretation and Ideation
Challenge 6: Creating a Business Model
Challenge 7: Creating the Symposium Pitch

THE SYMPOSIUM

POST SYMPOSIUM

Challenge 8: Creating a Prototype
Challenge 9: Testing Your Prototype
Challenge 10: Community Engagement, Crowdsourcing and Outreach
Challenge 11: Developing the Financial/ Sustainability Model
Challenge 12: Revise and Reflect
Challenge 13: Prepare for Demo Day
Final Challenge: Demo Day
Post Demo-Day
Design Thinking as a Way for Libraries to Remain Vital

“As a profession that mediates information from source to user—not unlike newspapers and travel agents—our future challenge is avoiding marginalization.... Identifying appropriate solutions will to some extent depend on our ability to adapt the IDEO method of design thinking into creating another emerging, for us at least, concept: the library user experience.” (Steven Bell, “Design Thinking,” American Libraries, Jan/Feb 2008)
Design Thinking Mindsets

- Human Centered
- Bias Toward Action
- Radical Collaboration
- Culture of Prototyping
- Show Don't Tell
- Mindful of Process

Design Thinking Process

- DISCOVERY: I have a challenge. How do I approach it?
- INTERPRETATION: I learned something. How do I interpret it?
- IDEATION: I see an opportunity. What do I create?
- EXPERIMENTATION: I have an idea. How do I build it?
- EVOLUTION: I tried something. How do I evolve it?

IDEO, Design Thinking for Educators
Understanding Users: Christensen’s Milkshake Test

- Get beyond traditional ways of looking at a problem
- Observe users, and figure out what they really need
- Ask: What job are you being hired to do?

http://www.flickr.com/photos/mrjoro/98074988/
“The project was a wake-up call. We saw over and over again how much we did not know about our students and their academic endeavors.” (Foster & Gibbons)
Define the Problem: Frame a Point of View (POV) Statement

[USER] needs to [USER’S NEED] because [SURPRISING INSIGHT]

- Example: The commuter needs a portable, convenient breakfast because she consumes on the go.
Spark your brainstorming with a “how might we?” question

- How might we make it even more convenient for the commuter to eat on the go?
Prototype & Test

“early prototype for the Gyrus ENT Diego” (IDEO Labs)

Diego Powered Dissector System (Paris Tech Review)
Design Thinking at Harvard’s Library Test Kitchen (Library Innovation Lab)

Library Test Kitchen
Tuesdays, 10 - 1
L12 Loeb Library Visual & Material Collections Room
Jeffrey Schnapp, Jeff Goldenson, Ann Whiteside, Ben Brady, Jessica Yurkofsky

Provisional Syllabus

http://www.librarytestkitchen.org/
Example Test Kitchen Project: The Neo Carrel

- Based on research into different environments in the library
- Supports studying (laptop at eye level) and napping

http://librarylab.law.harvard.edu/librarytestkitchen/?page_id=475
Understand what users need and what are “areas of untapped potential”
  - Steve Blank: “Get out of the building.”

Embrace change

Create and test a minimal viable product (MVP)

Get feedback, and learn from it

Focus on:
  - Usability: How easy is it to use and maintain?
  - Feasibility: Is it workable?
  - Value: Do people want it?
Entrepreneurial Approaches Applied to Information Overload

- Understand users: What barriers do they face?
  - Observe how they approach research projects.
  - Study what they collect & produce in research.
  - Conduct interviews.
- Define opportunity.
  - Researchers need filters to help them sort out irrelevant information and capture what’s useful.
- Create MVP.
  - A workflow for sorting information.
- Test MVP.
- Iterate.

(Based on Mathews)
Lean Startup Feedback Loop: Build, Measure, Learn

Eric Ries, The Lean Startup
“By anticipating and engaging disruption head-on, we can position the library as a leader of change rather than a victim of it.” (Brian Mathews, *Too Much Assessment Not Enough Innovation*)
How might design thinking and startup thinking be relevant at WPI?
What Next? Lessons Learned from New Academic Libraries (and Some Old Ones)

Libraries We Examined

- UC Merced (Opened in 2005)
- CSU Channel Islands (2002)
- Soka University (2001)
- Arizona Health Sciences Library-Phoenix (2007)
- NYU-Abu Dhabi (2010)
1. Define your core mission in relation to the needs of your institution

- Ask the right questions
  - Merced: Not “where is the reference desk going to be?” but “how are we going to provide reference services?”
- Match collections to priorities
  - Olin: Realia collection

http://www.flickr.com/photos/oskay/265899784/
Take into account users’ needs

- **Volume:** 70% of US adults are overwhelmed by the abundance of information.
- **Valence/Relevance:** How can students & researchers determine what is trustworthy?
- **Velocity:** How do they keep up with the rushing river of information?

Kristen Purcell, “Libraries 2020: Imagining the library of the (not too distant) future” Pew Internet (2012)
What are local opportunities to serve community needs?

- Project-based learning
  - Research concierges?
  - Helping students to create digital stories about their work?
- Hands-on learning
  - Offer makerspace with 3D printer, laser cutter, etc?
- Research
  - Help researchers make research openly available?
  - Provide publication services?
- Collaborative for Entrepreneurship & Innovation
  - Assist students with developing business plans?
- Global Perspectives
  - Services for students & faculty who are abroad?
2. Develop new service models

- Design services to support institutional needs
  - A.T. Still: Evidence-based medicine
- UC Merced
  - Outsource operations not essential to do locally, e.g. managing web servers, cataloging books
- Other libraries:
  - Curating data
  - Producing multimedia
  - Hosting community events
The Results? Service Matters

- When people first enter the library, they may be surprised by its small size and lack of books, but “most people know that it’s much bigger than it looks.” (Jacque Doyle, Arizona Health Sciences Library-Phoenix)
- “It’s all about service. I’ve not found anything on the downside to being digital.” (Steve Stratton, CSU-CI)
- Researchers “don’t need to know how we do it, but whether they are getting what they need, and they are.” (Bruce Miller, UC-Merced)
What do you give up? (What have you already given up?)

- The reference desk?
- Maintaining a substantial collection of journal back issues?
- Just-in-case purchasing?
- Contracts with vendors responsible for price inflation?
- Meticulous, custom catalog records?
- In-house management of tech infrastructure?
- E-reserves system (instead use course mgt system)?
- Something else?
3. Be flexible in delivering information

- “Container-neutral” policy: get information to patrons in the most appropriate format
- Just-in-time rather than just-in-case collections, focus
- Olin: “Does this work well electronically or do they need it in tactile form? What makes sense now?”
- Adopting e-journals frees up space & staff time

http://www.flickr.com/photos/cdnphoto/4017025367/

http://www.flickr.com/photos/mtsulibrary/2628491171/
Shift focus to unique collections

- Special collections
- Faculty & student work (open access?)
- Local collections & partnerships

http://www.flickr.com/photos/wsl-libdev/5577399478/
4. Collaborate with other institutions

• If you’re starting up an academic library, “you better have a good consortium” (Steve Stratton, CSU-CI)
• UC Merced holds **102,000** books print books (and provides access to 3,965,000 online books, including 3,150,000 HathiTrust full-text books), but it offers rapid access to 36+ million works in the UC system
• Consortial licensing
• Knowledge sharing
Models for Collaboration

- Collections
  - 2CUL
- Preservation (and Access):
  - WEST: Western Regional Storage Trust: “distributed retrospective print journal repository”
  - HATHI Trust
- Publishing
  - Library/press, e.g. Penn State’s Office of Scholarly Publishing
- Virtual reference
  - KnowItNow (Ohio/Oregon)
5. Re-imagine librarian roles

- CSU Channel Islands
  - all staff work at reference & circ desk, resulting in greater collaboration and common focus on service

- UC Merced
  - “user communication and instruction librarian” rather than reference librarian

http://www.flickr.com/photos/bibliona/2462256119/in/pool-nancypearl
The Research Informationist will serve as a liaison with the various biomedical research programs, centers, and departments to continually assess their information needs, implement new programs and services as appropriate, and evaluate existing programs and services.”

http://www.library.ucsf.edu/jobs/research-informationist
Transform Library Culture

- Focus on serving the user
- Move away from decision-making by committee toward more nimble teams
- Adopt agile processes
  - Engage stakeholders
  - Break down complex projects into component parts
  - Check in frequently
  - Adjust based on emerging needs & possibilities
- Support experimentation & tolerate failure
Provide 20% Time to Innovate

- Innovations resulting from **Google’s 20% Time**:  
  - Gmail  
  - Google News  
  - AdSense  
  - **50% of projects** launched in second-half of 2005
Neatline allows scholars, students, and curators to tell stories with maps and timelines. As a suite of add-on tools for Omeka, it opens new possibilities for hand-crafted, interactive spatial and temporal interpretation.

http://neatline.org/
6. Create versatile, engaging spaces for collaboration and reflection

- Library as “third space” supporting collaboration & interaction
- Flexible, configurable
- Technology support, from wireless to special displays
- Special programming for the community
- Libraries as “nerve-center of the community” (Futurist Thomas Frey)

UC Merced Library
Be Where Users Are: The Library Cart at Claremont

http://infomational.wordpress.com/2011/12/19/project-curve-part-five-library-on-wheels/
Provide a range of physical spaces for collaboration, creation, reflection.

"If you can design the physical space, the social space, and the information space all together to enhance collaborative learning, then that whole milieu turns into a learning technology and people just love working there and they start learning with and from each other." – John Seely Brown

Award-winning learning spaces demonstrate our commitment to responding to the needs of our patrons. We have learned through research and practice that our students need to be able to create, retrieve, combine, display, and share information, all in well-supported spaces that they can easily reconfigure.

The NCSU Libraries was featured in American Libraries' Library Design Showcase 2012.

http://www.lib.ncsu.edu/learningspaces
Shape the Library’s Web Presence

http://www.lib.ncsu.edu/
Create a Mobile Presence Geared Toward Mobile Users
Shaping the Future of the Library

http://www.flickr.com/photos/avl42/532053870
“The ideal public library of the future will not only be a warehouse of books ... but a realization of a people's university”

a. In the last year
b. In the last 10 years
c. In the last 50 years
d. In the last 100 years
e. In the last 150 years

Lewis M. Steiner, Enoch Pratt Library, 1890
“The future of libraries is about content and community”

Pratt Library CEO Carla D. Hayden, 2010

Enoch Pratt Free Library
http://www.flickr.com/photos/eekim/454801426/
What is the library in the digital age?

- Open platform
- Hub
- Incubator
- Commons
- “the beating heart of campus”
Libraries as “people’s university”

- Insert the library into classroom, but also make the library a space for knowledge creation
- Promote the commons: open access, open data, publications, learning resources
- Secure collaborative services
- Build personal connections
- Create spaces both for community and quiet reflection
“In the end, unless we really screw this up, the future will more like the past than the present. Libraries were built on the principle that the advancement of knowledge depends on a disinterested search for meaning, not profits, and that sharing is essential for that search. Libraries have always been a demonstration of the wealth of networks. Now that the networked world has caught up, libraries could serve as a model for sharing knowledge in a way that advances us all.” (Barbara Fister)
Towards a Conclusion

- Libraries face challenges (or opportunities) to
  - Provide access to information
  - Build community
  - Support knowledge creation
  - Preserve information

- Libraries should
  - Think creatively about the future
  - Understand users
  - Think like startups

http://www.flickr.com/photos/vermininchicago/2337307518/
Resources on the Future of Libraries

- Diigo collection on the future of the library: http://www.diigo.com/user/lspiro/future-library
- This presentation will be available at my Digital Scholarship in the Humanities blog, http://digitalscholarship.wordpress.com/
Questions? Suggestions?

http://www.flickr.com/photos/valeriebb/3006348550/