Re-envisioning the Library for the 21\textsuperscript{st} Century: Learning, Research, & Community

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Coalition for Networked Information
Georgia Tech
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Libraries provide spaces to support the active, social aspects of learning

U. Utah

Georgia Tech
Spaces like these where students can create digital projects

GIS Station – NC State U.  
Media Commons – U. Virginia
Guiding principles

- Learning is an active, not passive process
- Individuals do not learn in isolation – learning is a social process
- Learners build on a foundation of previous knowledge and understandings to achieve deeper learning
## Relationship of spaces to learning

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The Library as an Informal Learning Space

- Learner
- Content
- Technologies
- Facility
- Services
Libraries

- Provide spaces where students can work collaboratively and access technologies
- Provide services supporting use of information and technologies
- Serve all departments and colleges of the institution
- Provide welcoming, safe spaces for many hours of the week
- Offer expertise in curriculum development
A range of spaces for groups

U. Pennsylvania

Tilburg U. - Netherlands
Spaces where students can get work done together

U. Virginia

San Francisco State U.
Spaces where students can access hardware and software
Spaces for problem-based learning

“Solving problems on the frontiers of science does two things: it motivates students tremendously, and has a very interesting impact on identity.”

Wendy Newstetter, Georgia Tech

http://www.pkal.org/documents/PBL_GeorgiaTech.cfm

U. Washington Group Study Room
Sharing ideas outside the classroom

- Providing spaces where students can share ideas in public locations promotes peer learning
- These settings can also serve as areas for informal teaching sessions
Active experimentation with new technologies in public spaces encourages people to learn from one another.

NC State Technology Sandbox

U. Calgary Digital Media Commons
Makerspaces in libraries

- U. Nevada Reno Library
- Center for informal learning
- Open to all

“"A makerspace is a safe place to learn... the experimentation in the makerspace is inquiry-based. It is learner-driven. It is cross-disciplinary and as such undisciplined in the best possible way."” Audrey Watters, “The Case for a Campus Makerspace” Feb. 2013

http://hackeducation.com/2013/02/06/the-case-for-a-campus-makerspace/

UNR Sci/Tech Library product of 3-D printer

http://www.flickr.com/photos/dstl_unr/7685236604/
Inspiring curiosity

Intellectual curiosity is a strong predictor of future academic performance

"A hungry mind’ is a core determinant of individual differences in academic achievement”

Based on meta-analysis of 200 studies

*Perspectives on Psychological Science* as reported in *CHE*, 10/27/11

MIT Stata Center
Spaces for innovation

High-end hardware and expensive software available for all

Trained staff available for one-on-one and group assistance

Liaison staff work with faculty to develop synergies with the course assignments
Developing and supporting new types of assignments provides opportunities for students to combine content & technology

Assignment development – information commons staff work with faculty

Instructional program – staff provide workshops

Facility – high-end equipment and trained staff are available for follow-up

Outreach – annual workshop of faculty presentations on their course assignments
Co-location
- Convenience of proximity
- Opportunities to interact

Cooperation
- Coordination of programs
- Exchange of information

Collaboration
- Establishing **mutual** goals
- Each party invests resources
Close ties to the curriculum help libraries engage students

McMaster U. Lyons Media Centre

Facility: Gaming room supports 3 academic programs that study game creation and use

Collection: Games are available in adjacent area

Services: Staff support technology and use in coursework
Specialized spaces can support academic programs

U. Toronto Mississauga Finance Learning Centre

Encourages active, experiential learning

Specialized information resources

Dual screen workstations

Available for class/workshops and walk-in use
Faculty/student involvement in planning takes into account curricular interests

“We can’t wait for the Hunt Library to open so we can further bolster our program by using the whole ecosystem of visualization spaces in the building,” Michael Young, Assoc. Prof. Computer Science whose classes design large-scale games.
Scale-up classrooms are the trend

U. Nebraska Library

Virginia Tech Library
Planning Questions: Teaching & Learning

- What can the library provide that enhances the teaching and learning capabilities of academic departments?
- How are you integrating instruction and individual assistance into technology-enabled spaces? What literacies do you foster?
- What partnerships will strengthen student learning?
- How can you promote the use of content (including digital)?
Planning suggestions: Gain a deeper understanding of your user community

- Understand your students’ study, active learning, and specialized learning needs
- Focus attention on curriculum and faculty
  - Gather information on the direction of the curriculum
  - Target faculty who give or would like to give assignments that have a strong information resources component
- Develop specialized spaces and services for particular groups and needs – one size does not fit all at all times
Libraries Provide Public Spaces for Creating and Disseminating Scholarship

Sponsored summer institute

UCLA Library
Digital Scholarship Centers support graduate work and foster interdisciplinary communities

Offer a range of services

- Fellowships
- Cohort of students
- Daily interaction with staff
- Workshops, courses, certificate programs
- One-on-one consultation
- Online tutorials
- Create a community

U. Va. Scholars’ Lab

http://www2.lib.virginia.edu/scholarslab/
Libraries Can Provide Spaces for Talking through Ideas

Think Tank

U. Virginia Scholars’ Lab
Libraries Can Invite Users to Interact with Big Data

- “As we create more and more digital content, there’s a question of how do you get people to even realize we have it and then to interact with it in new ways.” Sayeed Choudhury, JHU Libraries

http://www.nature.com/news/publishing-frontiers-the-library-reboot-1.12664
Describing opportunities for innovation

Information on Spaces

Fourth Floor
Lecture Hall
A lecture hall specifically designed to promote effective verbal exchanges of ideas. Offers a high-tech, mod有多人礼堂功能，且通过互动式教育工具加强了有效的口头交流。设有高级技术设备，可进行互动式教育。

Late Night Learning Commons
A space designed for late-night study and collaboration. Features comfortable seating, large windows with views of the city, and a variety of food options.

Group Study Rooms
Locations include quiet study rooms with individual workstations, and larger rooms for group discussions.

Teaching & Visualization Lab
A state-of-the-art teaching and visualization lab featuring high-end technology for interactive learning. Includes a large, multi-touch screen, advanced audio/visual equipment, and a collaborative workspace.

 dankym

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Dankym
Libraries can offer workshops on specialized methods

Do It Yourself Aerial Photography

Are you looking for a low-cost, easy and safe method for showing current conditions, documenting change over time, and making maps? Do-it-Yourself aerial photography might be the answer. This workshop shows how to capture high resolution aerial imagery for a local study area without making a large investment in equipment. We’ll describe our experience with balloon and kite aerial photography and remote controlled aerial vehicles. You’ll learn best practices for choosing cameras and equipment, rigging techniques, processing imagery, and staying legal.

Wednesday, November 07 1:00pm – 2:00pm
in Campbell Hall, Room 105
(This workshop repeats on Thursday, November 08, from 3:00pm – 4:00pm in Alderman Library, Room 421)
Libraries Can Showcase Research Output and Library Resources

Mann Library, Cornell U.  McMaster U.
Posters Displayed in the Library Highlight Research

U. Washington

Penn State
Libraries Can Create Quiet Places for Graduate Students and Faculty

Faculty study – U. Colorado, Boulder
Libraries support research by providing

- Places for interdisciplinary work
- High-end technologies regardless of academic department
- Expertise and services
- Means for sharing and celebrating work products
Planning Questions: Research and Scholarship

- What can you provide to enhance research capabilities, especially related to e-research, of graduate students and faculty?
- How can you foster interdisciplinary interactions?
- What staff do you need to have in place for leading edge technologies and services?
- How can you celebrate the research achievements of your community, especially drawing attention to the links between research and information?
How Do Libraries Nurture Communities?

Oklahoma State U.
Food for students studying many hours

U. Toronto Missisauga

U. Calgary
Places to meet with students and faculty – Duke U.
Encouraging a sense of belonging
Collaborations
Building a sense of community: The Third Place

- A place outside of home or workplace
- Free or inexpensive
- Welcoming & comfortable
- Highly inclusive – a “mixer”
- Food (usually)
- Intellectual fora

“Nothing contributes so much to one’s sense of belonging to a community as much as ‘membership’ in a third place.”

Ray Oldenburg, *The Great Good Place*, 1999
Inviting community in outdoor spaces

U. Colorado, Boulder

UC Santa Cruz
Cornell Mann Library Garden
Art for Inspiration at Northwestern U.
Displaying student art work

Project included a lesson on use of copyright-free images, which were used in mash-ups and then the use of Creative Commons licenses for the works produced by the students.

Display in the library in celebration of Open Access week
Catalog art at U. Colorado, Boulder
Book art at Deakin U. - Australia

Photo courtesy of Deakin U. Library
Building community virtually
My #HuntLibrary on Instagram

http://d.lib.ncsu.edu/myhuntlibrary
Planning Questions: Community

- How can you make your space welcoming, comfortable, and inspiring?
- How can you use art or symbols to link the library to art or the culture of your institution?
- How do you signal the unique library aspects of your Third Place?
Planning resource: Learning Space Toolkit

http://learningspacetoolkit.org/
When your building project is completed, will people say:

“This library attracts ideas!” Donna Livingstone, U. Calgary
Finally, as you plan, keep things in balance
Thank you!

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All photos are my own unless noted