3 April, 9:00am

Creating innovative library spaces

Peter Sidorko / Esther Woo
Bad Libraries
• Build Collections

Good Libraries
• Build Services (of which collection is one)

Great Libraries
• Build Communities

R. David Lankes, Director, School of Library and Information Science, University of South Carolina
CHAPTER 4
Academic Library Futures in a Diversified University System
Lorraine Dempsey and Constance MTRA

UNIVERSITIES (AND LIBRARIES) IN TRANSITION

During World War II, the higher education sector grew rapidly. The average college attendance was dramatic. For example, in 1940, 4 million students attended US colleges and universities; by 1960, total enrollment had grown to 7 million students, and by 1994, enrollments had grown to 18.3 million students. And this growth continued. Between 2004 and 2014, enrollments increased 17%, from 17.3 million to 20.3 million. In 2014, the higher education sector has grown, the number of US academic metric has increased as well, growing by 6% from 2012 to 2013, and total 2016 to 2018.

Dempsey 1[2]
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OCLC, San Marino, CA, USA


The Most Valuable Space on Campus

Converting Library Space to Meet Patron Needs

Current State

• Most library space taken up by physical books and journals in open stacks
• Typically 50% of volumes have never circulated (some institutions as many as 80%)

Preferred End-State

• Ebooks and e-journals provide instant access to needed resources
• Physical volumes are removed when possible to free up space for collaborative learning and other activities
• Other academic support services (e.g., teaching and learning centers) move into the library space

Barriers to Change

• Ebooks and discovery tools not yet an acceptable substitute for browsing open stacks
• Vocal groups of faculty strongly oppose reducing onsite physical collection
• Deselecting books and journals can be expensive and time-consuming
• Often expensive to renovate libraries to accommodate new uses

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Source: Education Advisory Board interviews and analysis.
Transforming the Library

Defining and Removing On-Campus Barriers to a Preferred End-State

An Unsustainable Present State
- Proprietary collections arms race
- Acquisitions focused on collection building
- No alternatives to journal publishers
- Focused on “commodity” circulation and reference activity
- Space tied up in low-demand activities

Keys to Inclusive and Orderly Migration
- Preserving Access and Service Quality
- Rightsizing Proprietary Print Collections
- Open Scholarship Support
- Evolving Library Service Mix
- Redeploying Staff and Space

The Digital Information Services Future
- Collaborative collections and digital access
- Acquisitions informed by usage data
- Incentives for and promotion of open access models
- Trading up to unique student and researcher support services
- Space used for collaborative learning
The evolution of the Library as place

### Trends Accelerating Technology Adoption in Academic and Research Libraries

<table>
<thead>
<tr>
<th>Short-Term (1-2 years)</th>
<th>Mid-term (3-5 years)</th>
<th>Long term (5+ years)</th>
</tr>
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<tbody>
<tr>
<td>Research Data Management</td>
<td>Patrons as Creators</td>
<td>Cross-Institution Collaboration</td>
</tr>
<tr>
<td>Valuing the User Experience</td>
<td>Rethinking Library Spaces</td>
<td>Evolving Nature of the Scholarly Record</td>
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_NMC Horizon Report: 2017 Library Edition_
# Key Trends Accelerating Higher Education Technology Adoption

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<td>Redesigning Learning Spaces</td>
<td>Advancing Cultures of Innovation</td>
<td>Rethinking How Institutions Work</td>
</tr>
<tr>
<td>Blended Learning Designs</td>
<td>Growing Focus on Measuring Learning</td>
<td>Modularized and Disaggregated Degrees</td>
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Questioning old ‘mantras’

- The library is a strong brand
- The library is neutral
- The library is trusted
- Library spaces are unique
- The library provides for discovery of information.

Building new paradigms

- The hybrid library
- The inside-out library
- The library in the life of the user
- The library as platform
- The library as infrastructure
- The computational library
- The service-oriented library
- The library as digital third space
- The globalised library
- The boundaryless library

### Changing functions of the library

<table>
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<tr>
<th>Term</th>
<th>Collections-based library</th>
<th>Services-based library</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library</td>
<td>Defined by library operation metrics (collection, reference)</td>
<td>Defined by university needs (research support, student success and community engagement)</td>
</tr>
<tr>
<td>Organization</td>
<td>Bureaucracy: reproduction of their system of means is their main organizational goal</td>
<td>Enterprise: goals, and the change of goals, shape and endlessly reshape the structure of means</td>
</tr>
<tr>
<td>Expertise</td>
<td>Subject, process</td>
<td>Partner in research and learning, creation etc.</td>
</tr>
<tr>
<td>Systems</td>
<td>Back office</td>
<td>Workflow, digital scholarship and shared systems</td>
</tr>
<tr>
<td>Space</td>
<td>Configured around collections</td>
<td>Configured around user experiences</td>
</tr>
<tr>
<td>Collections</td>
<td>Just in case, central, institutional, consumption</td>
<td>Facilitated (just in time), one service among others, collective and creation</td>
</tr>
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</table>

No surprises there – really, 63% of poll participants raised their hands and voted “Enhancing discovery and access to the library’s digital resources” as their top aspiration in 2019.

The information age that we live in snowballs at an increasing speed every day. Taking medical knowledge produced for instance - the amount of information that took 3.5 years to produce in 2010 will only take 73 days in 2020.¹

To provide a seamless user experience for its users through the trove of resources, libraries are spearheading metadata strategies to tackle challenges such as of legacy metadata, metadata structures, user experience and more.²³

**Revamping parts of my current library space**

Makerspaces, fast casuals, incubators, event halls and more – 46.7% of librarians aspire to revamp parts of their library to open up more space and engagement to its visitors.
Key steps for planning a new learning space

- Scan the environmental (e.g. Performance gaps, emerging needs of the institution or patrons, space planning trends)
- Align with vision & mission of mother institution
- Support the role and development strategies of the library
- Consult stakeholders
- Draft planning brief
- Estimate budget
- Source funding
- Project management
The first wave

Information Commons in the 90’s

“[A] cluster of network access points and associated IT tools situated in the context of physical, digital, human, and social resources organized in support of learning”
Beagle et al. (2006, p. viii)

The second wave in the 21st century

“The physical, digital, human, and social resources supporting IC that are “organized in collaboration with learning initiatives sponsored by other academic units, or aligned with learning outcomes defined through a cooperative process” Beagle et al. (2006, p. viii)
A new learning space –
An ecosystem that means a lot of things
The process of planning
- Dichotomy of approaches

Architectural approach

Design work

Educational approach

Concerns of the institution, library users and staff
Designing for a future full of changes & uncertainty.

- Government policy reform
- Curriculum & pedagogical services
- Ariantly needs of different library collections and users
- Competing behaviors of users
- Access to the internet anytime anywhere
- Resources fluctuation in daily/seasonal use
- Ever-changing needs of users
Planning DNA

- Zoning
- Operating hours
- Flexibility
- Technology
- Inspirational ambiance
- Integrated service point
- Self-service
- User friendliness
- Safety and security
- Future maintenance
- Sustainability
Popular features

• Zones for different types of learning behaviours
• Customized noise, food & drink policy
• Better acoustics for group & social activities
• Round-the-clock facilities
• Flexible furniture & partitions for routine activities & events
• Efficient WiFi connection and coverage
• Wireless services and online booking
• Learning technologies
• Effective directional and instructional signage
• Counter supported by roving service
<table>
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<th>Stakeholders</th>
<th>Service/facility</th>
<th>Major issues/concern</th>
</tr>
</thead>
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<tr>
<td>Individual users (Quiet study, research, relaxation)</td>
<td>Deep quite room, research carrels, study tables, individual workstations &amp; seats, etc.</td>
<td>More seats, quiet environment, software support, printing &amp; scanning</td>
</tr>
<tr>
<td>Group users (Robust discussion &amp; collaboration, socialization)</td>
<td>Discussion rooms, mobile tables, chairs &amp; sofa, diner booths, breakout spaces, etc.</td>
<td>Sufficient provision and optimal use of facilities, food &amp; drink policy</td>
</tr>
<tr>
<td>Staff (Service provision, problem solving &amp; conflict resolution)</td>
<td>One stop shop services at integrated information counter, patrol</td>
<td>Conflict resolution for users, upkeep of facilities, teamwork and upgrade of staff competencies</td>
</tr>
<tr>
<td>Management (Strategic planning and service review)</td>
<td>Facility booking system, technology rich environment, user-friendly signage, new food &amp; drink policy, etc.</td>
<td>Conflicting needs of users, resource constraints, facility and service maintenance</td>
</tr>
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Feedback loop of service design and delivery cycle

- Popular facilities & services
- Higher usage, wear & tear
- Problem solving & conflict resolution
- Negative user perception
- Review for improvement
- Like
The third wave

Makerspace/hackerspace, innovation centre

Maker movement and entrepreneurship

“anyone can make... anyone can change the world.”

Space for collaboration connection inspiration innovation

NYU Tandon MakerSpace

https://thenewstack.io/dynamicland-rethinks-computer-interfaces/
We see the possibility.
Ideas for new library spaces

• Book talks and book sale
• Exhibitions and other cultural activities
• Library café
• Social space
• Indoor exercises
• Therapy sessions
• Napping pods
• Digital literacy (fluency) training
• STEAM education
• GIS lab and data visualization
• Flipped classroom
• Artificial intelligence, extended reality…
Community building

Engage people in innovative spaces with user-centred services and facilities for new experiences:

- Acquire knowledge and skills
- Participate in activities / events
- Socialize and interactive with others
- Create new ideas
- Make a change
Ingenium, 2/F Main Library, HKU (1,457 sq.m.)

Design intent: A centrepiece of HKU to support and showcase the interdisciplinary learning, teaching and research of students and staff with library resources, innovative technology and inspirational environment.

**INSPIRATION ➔ CONCEPTUALIZATION ➔ VISUALIZATION ➔ PRODUCTION ➔ EXPOSITION**

Two SEN rooms for individual learning of students with visual impairment or other special education needs

Five sound proof Concept & Creation rooms for brainstorming new concepts and ideas

Tech@Ingenium for users to experience and conceptualize creative ideas with workstations equipped with artificial intelligence and virtual reality software

Flexible space that can be used for study on normal days and transformed into a large venue for conferences, seminars, book talks and other events with the help of foldable sound proof partitions

Digital Interactive Lab with foldable partitions and a large visualization wall comprised of twelve 55" LCD TV that can support data visualization and presentation of high definition images for digital scholarly research and knowledge exchange in meetings, seminars, workshops, instructional classes, etc. It can also be converted into a discussion area with the provision of a portable digital whiteboard system and whiteboard tables for idea/concept generation.

PC/MAC workstations with design software to test out and visualize ideas in 2D format

One button studio and two editing rooms for creating, recording and editing digital audio/visual files. Users can produce audiovisual materials/assignments for blended learning and different kinds of campus activities. Students can also use the studio as a means to improve their public speaking and presentation skills.

3D scanners to facilitate data collection for constructing digital 3D models; 3D printers, vinyl cutter and laser cutter to produce actual prototypes.

Recent additions of e-resources (info kiosk) and print books (bookshelves), plus self-service stations to check out/in library materials and process express print jobs.

An exhibition and event space featuring a hanging virtual reality dome with high end projection systems to display normal and 360 degree videos/images under a three-storey tall atrium

Library Innovation Centre (LIC): A space managed by the Media Services

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All faculties
Animal Asia
Centre for Applied English Studies (CAES)
Centre for Development and Resources for Students (CEDARS)
Centre for Sports and Exercise (CSE)
Information Technology Services (ITS)
Mingde Project
Student Union
Technology-Enriched Learning Initiative (TELI)
Opportunities & benefits

• Community building with more patrons, partners & events
• Different service expertise & connections
• New knowledge and skills for both patrons and staff
• Ideas & inspiration for future developments of the library and the community

Optimized use of space +
Challenges of execution

1. Project management (time, money, expertise, site restriction, bureaucracy, etc.)
2. Service model design
3. Teamwork between service providers
4. Change management
5. Staff development
6. Relationship building
Useful websites

ALA - Library Buildings & Space Planning
http://www.ala.org/tools/atoz/buildingandspaceplanning/buildings_and_space_planning

Designing libraries
http://www.designinglibraries.org.uk/?PageID=43

Learning Spaces Collaboratory
http://www.pkallsc.org/

FLEXspace
http://flexspace.org/

Libraries and maker culture: A resource guide