



Library Learning Spaces Study Group

Report

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The Library Learning Spaces Study Group was charged with assessing the current uses of library facilities, including existing and potential future learning spaces within the libraries, and identifying changes needed to enable the libraries to continue to support teaching and learning at Dartmouth into the future. The goals for this effort included assessing existing and potential learning spaces within the libraries; gathering ideas from peer institutions; promoting an understanding of what kinds of facilities promotes learning; and drafting a report with recommendations for next steps. During our work, we decided to focus our attention on the Baker-Berry Library complex. This document represents the group's report.

The vision for the library's study spaces (which dates to the architectural development of the building in 1996-7, at a time when laptops were still an expensive novelty) conceived of students doing individual studying. The public computers, apart from Berry level one, were scattered throughout the library, set up in ways to support individual use. The original design did include group study rooms, but these were located on the periphery, and, apart from blackboards, walls, and a door, there is little that differentiates them from other study spaces.

Since the Baker/Berry plans were finalized, many institutions have re-conceptualized the role of their non-classroom (or "informal") learning spaces. There are several forces or trends behind this: libraries are striving to remain a central locus for academic activity; a recognition that individual study spaces need to be complemented by spaces designed to support collaborative work; and networked, interactive technology is playing an increased role in the curricular work of faculty and students. Many institutions have invested in learning and information commons, typically located in the library, which are facilities that bring together space, technology, and support services to enable students to work both individually and collaboratively using 21st century tools and resources.

There are numerous examples of learning commons projects, one of the most recent ones being Duke's "The Link" project <<http://link.duke.edu/>> combining both incubator classrooms and a learning commons. Other institutions include Emory, the University of Chicago, the University of British Columbia, U Mass Amherst, Indiana U, North Carolina State, Georgia Tech, Cornell, McMaster U, Arizona State, Colorado State, U of Dayton, Stanford, U Delaware, U Tennessee, U Georgia, Virginia Tech, Ohio State, Northwestern, Denison, to name a few.

Berry Library was designed with flexibility in mind. The architects realized that as technology and learning practices evolved, there would be a need for the library spaces to co-evolve in ways that support new needs. The building has been enormously successful since it's opening in 2000 both in terms of its adoption by our users [especially students] but also in the establishment of an environment that has fostered strong relationships across the organizations occupying the building. It is a heavily used building, which is currently open on average 114 hours/week. Peak traffic times of the term approach 10,000 passes through the security gates in a day. It has received notice on the national level for the creative mix of functions supported through the utilization of physical space, most particularly through presentations at CNI, EDUCAUSE, ALA, and other professional forums where learning commons design is discussed. None-the-less, needs identified from our user community, combined with ideas and trends in learning commons design from other institutions, illuminate ways the facility could be modified to meet changing needs.

In addition to the Library's services and administrative functions, the facility currently includes:

- Computing Services [Administration, Network Services, Academic Computing, Computer Store, Student Help Desk]
- Dartmouth Center for the Advancement of Learning
- Institute for Writing and Rhetoric [IWR]
- Student Center for Research Writing and Information Technology [RWIT]
- Registrar controlled classrooms and seminar rooms

Gathering of Information and outcomes

The group developed a number of assumptions during this project but augmented these with activities to include the opinions and experiences of our users. In addition, the group reviewed the literature on learning commons and did a horizon scan of case studies from other institutions through the literature and through conference presentations.

User needs for the facility were identified in a number of ways. User surveys included:

- Association of Research Libraries [ARL] LibQUAL+ Survey, 2003 and 2008
- the Provost's Library Review 2007
- a walk-in facility survey Fall 2009
- conversations with colleagues and students

In addition, two groups charged with merging the Berry Information desk and the Berry Reference desk (Berry Information and Reference Desk, or BIRD) included assessment activities that inform the Learning Spaces group in regard to Berry Level One. In its design and planning phase, the BIRD group has worked with an architecture class assigned to develop designs for this new service point. The group also placed a bulletin board on Berry Main Street to elicit responses to the questions, "What do you like on First Floor Berry? What is missing?" and have held focus groups with those library staff who work on Berry Level One for their thoughts and opinions.

Needs identified through these activities include:

greater access to group study space

- We currently have six small group study rooms and two larger rooms [Baker 152 and 158] that are heavily used and available for online self-booking in Berry Library. In addition, there are two registrar-controlled seminar rooms on Berry Level 3 and 4 that remain open until 11pm, when they are locked for the evening. Other seminar rooms in the building are locked at 6pm.
- There are two 24 hour access study areas [1902 Room, Novack Café], but one is not intended for group study (quiet study space), the other too noisy for group study
- The Library is experiencing an overflow of group study activities taking place on floors originally intended for individual study.

more quiet individual workspace

- Some spaces are underutilized (due to poor lighting conditions and lack of electricity to power laptops), while others are filled to capacity (the 1902 Room, for instance, is filled to overflowing during academically intensive periods of the term)

more opportunity for faculty/student interaction

- There is no space in the facility designed to support this function. On occasion Berry 183 and the Baker Main hall wind up being used in this manner, but Berry 183 is booked daily during the popular time period after classes for the RWiT Center [4 pm- 10 pm] and the Baker Main Hall is unfurnished, aside from some card catalog work tables that remain popular for the access to natural light.

more flexible technology-enabled teaching and learning spaces:

- The facility has 2 teaching labs with an inflexible set up that do not facilitate new ways of teaching. These rooms are locked outside of specific class use, so are unavailable to group or individual study.
- The Jones Media Center project rooms are available for group media work, but hours are limited.
- There is very limited access to spaces providing technology to enable group learning: the RWIT / Berry 183 room has a projector available after RWIT hours end, from 10pm – 2am, and Baker 152 has a projector available from 5 pm- 2 am, but neither are set up for ease of use.

Opportunities to improve the facility

The following spaces provide exciting opportunities for Dartmouth College to better utilize space within the Baker-Berry complex.

- I. Baker Main Hall
- II. Berry News Center
- III. Berry Level 1
- IV. Orozco Room
- V. Carson Instructional Center
- VI. Presentation Practice and Video Conferencing Studios

I. Baker Main Hall

Since the removal of the card catalog cases in the 1990's, the main hall has been relegated to the role of "pass-through zone" on the way to other destinations. A regular program of exhibits highlighting the library's collections, and/or supporting conferences and other academic activities at Dartmouth is the main feature of the hall. Periodically it has provided an opportunity for the Hood Museum of Art to expand the reach of their exhibits through installation of special exhibits [Wenda Gu, for instance], or extensions of exhibits at their facility.

It is common to find students sitting on high stools at narrow tables by the windows, drawn to the wonderful natural lighting. Faculty/student work occurs at these tables as well, with faculty occasionally using the space for appointments with students.

The aesthetic of this grand space on Dartmouth's campus should be carefully preserved, but use of the space could be maximized by the addition of appropriate furnishings. This area could become the 'indoor campus green'.

RECOMMENDATION:

- Furnish the hall with a mixture of comfortable groupings of soft seating [couches and chairs, coffee tables, floor lamps].

- Use area rugs to define furniture groupings and investigate adding suspended sound baffling panels above the groupings to help absorb the sound.
- Intersperse amongst these groupings high tables that could seat four to six individuals. These would break up the 'lobby' look of the hall and provide space for informal group work, while preserving the current popular height of the tables that provide wonderful views of the green.
- Upgrade the electrical wiring in the hall for laptop use.

II. Berry News Center

As news sources continue to move online at a rapid pace, there is a steady decrease in the number of Library subscriptions for print newspapers. This room continues to be used for study, but it could be repurposed to create an espresso/coffee bar, which would generate income for the Library. An outsourced espresso bar would create a new comfortable small food outlet in the library, easily accessible to the Baker Main Hall and the Current Periodicals Room [CPR]. A coffee bar could bring new life to this area, supporting new activities in the Periodicals Room [afternoon readings, research talks by faculty or senior scholars, etc] without impinging on the popularity of the CPR for later evening study.

RECOMMENDATION:

- Install a coffee bar [access to water lies on the other side of the wall behind the copier currently in that room].
- Maintain the plasma screens for news and provide a few small café tables/chairs.
- Remove the shelving, and re-locate the current newspapers and magazines into the CPR.
- Consider re-flooring this area for easy maintenance, and retain carpeting to match other areas of Berry Library.
- Consider this an area for browsing the New Books and Faculty Author displays.

III. Berry Level One

This is a heavily used area for study and research. With changes in publishing patterns and use of printed materials, the reference collection is currently being weeded to downsize its footprint on the floor. In addition, the North Information Desk and the Reference Desk are being combined into one new service desk, making it easier for patrons to identify where to ask questions. These changes provide a number of opportunities to build upon the existing strengths of this central heart of the library.

RECOMMENDATIONS:

- Establish a 'productivity area' on the floor for scanners, copiers, and printers. Encourage sustainability by providing access to high quality, easy to use scanners, and minimizing the number of public copiers. By bringing the equipment together in one location, it is easier for patrons to locate what they need, and easier to corral the messiness and noise within a buffered zone. Maintenance and support of users will also be simplified.
- Install a new service desk at the top of the stairs, easily visible from multiple points on the floor and positioned to oversee the security point at the top of the grand staircase.

- Expand the number of group study areas by bringing in freestanding glass wall components. These should be freestanding furnishings, with sound buffering, have white boards, and power available. Areas identified as possibilities include: the east wall, outside the Reference office area; the north wall, outside Academic Computing, the area outside the elevator on the east wall of the main floor, and the west wall of Main Street, south of the Circulation desk.
- Add additional attractive seating along the window wall above the main stairwell that leads to Novack. Ideas include rocking chairs [ala Logan and Kennedy International Airports] or small soft seating.
- Consider using the floor space outside the Faculty Academic Computing Center (FACC) for collaborative workspace: either facilitated by technology [i.e. LCD screen for hook-up by multiple users] or soft seating.
- Consider repurposing the conference room inside the FACC into a group study/small videoconferencing room by installing a door that would lead directly out onto the main floor. This would allow the space to be used after hours, when the FACC is closed, without breaking the security perimeter of that area.

IV. Orozco Room

Historically, [before the construction of Berry Library] the Orozco Room was one of the most heavily used study areas in the library. It was the ‘see and be seen’ spot for students who wanted a quiet place to work, while at the same time, being located in a regularly traversed hall where they could see friends pass by. This was a quick East/West corridor for the campus. With the opening of Berry Library, the *spot* to be studying in the mix of activity quickly became Berry Level One. It is probably not coincidental that this is a location well populated with computer workstations.

With more students relying upon computers, whether public or personally owned, use of the Orozco Room has plummeted. It now serves primarily as overflow study space during midterms/reading periods/final exams, due perhaps to poor lighting and a dearth of power outlets. Students are no longer regularly exposed to the moving presence of the murals and a number of students have mentioned never having been in that space more than once or twice in their tenure at Dartmouth.

This space currently provides 94 seats at a series of long tables. More than anything, it is in need of an upgrade to the overall lighting in the room. The opportunity to replace the obsolete overhead light fixtures and to improve the lighting of the murals also provides the chance to improve user lighting and to make the space a welcoming, comfortable one for student and faculty use.

RECOMMENDATION:

- Remove tables at each end of the room to open up space for two groupings of comfortable lounge seating with floor lamps. These could provide small informal spaces for group work, a comfortable resting spot for visitors viewing the murals, and an attractive element that will bring students into the hall.
- Improve the overhead lighting to create a more attractive reading environment. Consider adding sconce lighting on the south wall to break up the expanse without competing with the murals. Install reading lamps on tops of the long tables sufficiently

- spaced to allow readers to spread out their work, with electrical and Ethernet outlets integrated into the base of the lamps to facilitate laptop work.
- Add a grouping of comfortable seating near the bookcases across from the Reserve service desk. Add to the reading collection materials on Orozco and muralism for visitors to browse. Use area rugs to help absorb sound
 - Investigate adding sound baffling panels to the ceiling to help absorb the sound echoes in the space.

V. Carson Instructional Center

The group has studied the design and utilization of the three instructional centers (IC): Starr, IC37, and Carson. All are designed to support the same style of instruction: hands-on instruction in the use of computer applications. Their design and furnishings do not support any other style of instruction. The current design of the Instructional Centers within the Library make it difficult to lead collaborative, discussion based workshops that model active learning principles. We have measured their utilization in 2007 and 2008 and have found that they are, roughly, utilized 50% overall. [Usage rates range from a high of close to 100% to a low of 4 % during the calendar year]. IC37 is used almost entirely for instruction in the use of administrative computer applications, whereas Carson and Starr are used mostly for instruction by the library and Academic Computing, with occasional use for academic courses. IC37 and Carson have Windows desktops; Starr is equipped with desktop Macs. The fact that we have three such facilities that are utilized 50% of the time suggests that we have some flexibility here to consider adding new functionality to these resources.

What the institution does not have in place at this time is a room that would support experimentation with new instructional technology and the new teaching methods that such technology would support. All of the registrar-controlled classes are in heavy and continual demand during all academic terms. The need for these rooms to be consistent with respect to the technology precludes using them for experiments with new technologies and teaching methods. Our current smart classroom technology conventions are the same as they were in 2000, when Berry library opened.

In addition, the “opening” in 2011 of the Life Sciences Building, with its new classrooms designed to support team-based learning, lends some urgency to the need for some space in which faculty can begin to experiment and evolve their curriculum to take advantage of the new facilities. Unless the faculty have an opportunity to evolve their curricula, it is likely that these new facilities will be used only for more traditional presentational class meetings.

RECOMMENDATION:

“Re-invention” of the Carson Instructional Center [IC]. The working group recommends that we “re-invent” the Carson IC to become an experimental (or “incubator” as some institutions call this kind of space) classroom. We feel that such a facility could continue to support its use as a “traditional” IC but also enable faculty to begin to evolve new innovations in their curriculum, based on technology that we could “road test” in such a facility. Without such an experimental classroom in place, we have no “laboratory” that would enable us to explore new teaching practices and the technology that would enable them. Re-designing the Carson Instructional Center to include modular and reconfigurable seating, flexible presentation space, and platforms for creation and recording of content will align this space with our current faculty

development and course design practices. Partners in supporting such an undertaking include Computing Services, the Library, the Dartmouth Center for the Advancement of Learning, and the Arts and Humanities Resource Center.

VI. Presentation Practice and Video Conferencing Studios

In conversations with faculty and other partners, the learning spaces group has determined that there is a need for facilities to support the increasing use of audio and video for course projects. This need goes beyond the loaner equipment and video editing facilities currently available in the Jones Media Center. In addition to video creation projects, which Jones currently supports, students can benefit from facilities that provide the audio and video recording of their own presentations as well as the ability to participate in video conferencing sessions with people outside of the College. In the past two years, the Institute for Writing and Rhetoric has hired two speech lecturers and increased speech course offerings. We met with Josh Compton, IWR lecturer in speech, and determined that a digital presentation studio would be an extremely valuable asset to the students and faculty. Josh was enthusiastic about the creation of such a space, and enumerated the ways in which he would make use of it in his course as a venue for practice and actual presentations.

Dartmouth language programs and classes are beginning to use video conferencing as a pedagogical tool to facilitate language learning between native speakers and Dartmouth students. Several faculty (in Chinese, Spanish, Russian, and Japanese) have already been involved with projects that connect their students with language partners, tutors, and lecturers in other parts of the world. These connections have been limited by technology (not always sufficient bandwidth to connect from student rooms), access to technology (locations on campus that are unavailable after 5 p.m.), and facility size issues (a videoconferencing-equipped lecture hall is not appropriate for 1:1 or 1:2 interactions).

RECOMMENDATION:

The group recommends the creation of a digital presentation studio. The studio would provide equipment for easy video recording and later review of presentations. In addition to those in speech classes, a digital presentation studio would be of use to all students, faculty, and staff who are preparing for presentations or who wish to record a video to post online for instructional purposes. The studio should also be equipped with 1-2 sound booths that would serve as both audio recording booths and be usable by 1-3 people for desktop videoconferencing.

Summary

In this document we have put forward a set of recommendations to modify the facility to address needs identified through user assessment and our understanding of current trends in teaching and learning. We have not explored in detail any of the above recommendations beyond this assessment and recognition of possibilities. The Library Learning Spaces team would welcome the opportunity to develop these concepts further based upon interests and directions identified by the campus.

APPENDIX

Articles

[Rebooted Computer Labs Offer Savings for Campuses and Ambiance for Students](#)

Chronicle of Higher Education, December 6, 2009

A Space to Collaborate

David Rath

Campus Technology, 11.01.09

<http://campustechnology.com/articles/2009/11/01/21st-century-classroom.aspx>

Fostering Learning through Library Spaces

Nancy L. Baker

The University of Iowa Libraries, January, 2008

www.lib.uiowa.edu/admin/space/FosteringLearning_LibrarySpaces.pdf

Linking the Information Commons to Learning: How to Measure Success

Joan K. Lippincott

Vantage Point (Ipswich, MA: Ebsco, 2007). Available from the publisher at

www2.ebsco.com/en-us/NewsCenter/publications/vantagepoint/Pages/vantagepoint.aspx.

Commons 2.0: Library Spaces Designed for Collaborative Learning

Bryan Sinclair

EDUCAUSE QUARTERLY • Number 4, 2007

<http://www.educause.edu/EDUCAUSE+Quarterly/EQVolume302007/EDUCAUSEQuarterlyMagazineVolume/162298>

Learning Spaces – an Educause EBook. 2006.

Diana G. Oblinger

<http://www.educause.edu/LearningSpaces>

Learning Space Design Theory and Practice

Brown, Malcolm

Educause Review, vol. 40, no. 4 (July/August 2005): 30.

<http://www.educause.edu/EDUCAUSE+Review/EDUCAUSEReviewMagazineVolume40/LearningSpaceDesignTheoryandPr/157994>

Design of the Learning Space: Learning & Design Principles

Chris Johnson and Cyprien Lomas

Educause Review, July/August 2005

<http://www.educause.edu/EDUCAUSE+Review/EDUCAUSEReviewMagazineVolume40/DesignoftheLearningSpaceLearn/157984>

The Future of the Learning Space: Breaking Out of the Box

Phillip D. Long and Stephen C. Ehrmann

Educause Review, July/August 2005

<http://www.educause.edu/EDUCAUSE+Review/EDUCAUSEReviewMagazineVolume40/FutureoftheLearningSpaceBreak/157992>

Learning Space Design in Action

Phillip D. Long

Educause Review, July/August 2005

<http://www.educause.edu/EDUCAUSE+Review/EDUCAUSEReviewMagazineVolume40/LearningSpaceDesigninAction/157996>

Learning Spaces: More than Meets the Eye

Malcolm B. Brown and Joan K. Lippincott

EDUCAUSE QUARTERLY • Number 1 2003

<http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/LearningSpacesMorethanMeetsthe/157222>

Learning in the Digital Age by John Seely Brown

in: *The Internet & the University: Forum 2001* edited by Maureen Devlin, Richard Larson and Joel Meyerson, pp. 65-91.

Published as a joint project of the Forum for the Future of Higher Education and EDUCAUSE, 2002.

[learning in digital age-aspen.pdf](#)

Revitalizing Baker Corridor

A Report from Students in English 96

Dartmouth College. March 2005

available from Blackboard team site and C. Pawlek

Presentations:

Bringing the Information Commons Home

EDUCAUSE Annual 2008

<http://www.educause.edu/Resources/BringingtheInformationCommonsH/163450>

Information and visuals are available at

<http://www.sheffield.ac.uk/infocommons/index.html>

Space 2.0: Small-Scale Library Redesign Projects

Dartmouth Biomedical Libraries October Conference, 2008

<http://www.dartmouth.edu/~biomed/services.html/OctCon2008/index.shtml>

In particular: *Where Would You Study? Feedback Via Post-It Notes*; Carrie Macfarlane and Brendan Owens, *Library and Information Services, Middlebury College*

Evolving Library Space: From "Information Commons" to "Collaborative Learning Commons" Materials

from the Electronic Resources & Libraries Conference, 2007

<http://facstaff.unca.edu/sinclair/spaceplan/evolvingspace.html>

Learning Space 3.0 When Real and Virtual Space Collide

Mark S. Valenti

Educause Learning Initiative, September 18, 2008

net.educause.edu/ir/library/pdf/ELI0837.pdf

Informal Learning Spaces in Support of the Institutional Mission

Educause Learning Initiative Fall Focus Session, 2005

<http://www.educause.edu/Resources/InformalLearningSpacesinSupport/156556>

Planning kits

ARL Learning Space Pre-Programming Tool Kit, by Crit Stuart, ARL Program Director for Research, Teaching, and Learning. : The tool kit is available for free download from the ARL Web site at <http://www.arl.org/rtl/space/>

The Information Commons. SPEC kit, 281. By Haas, Leslie, and Jan Robertson. Washington, D.C.: Association of Research Libraries, Office of Leadership and Management Services. 2004.
Executive summary: www.arl.org/bm~doc/spec281web.pdf

Websites

Many good resources linked from the EDUCAUSE Learning Initiative website 'Learning Space Design' <http://www.educause.edu/ELI/LearningPrinciplesandPractices/LearningSpaceDesign/5521> as well as the EDUCAUSE Learning Space Design Constituent Group <http://www.educause.edu/cg/learningspace/5983>

Great page from Vanderbilt with resources, best practices, examples, articles, materials and links for learning space design.
http://www.vanderbilt.edu/cft/resources/teaching_resources/technology/learning_spaces.htm

Planning and Designing Technology Rich Learning Spaces
Northumbria University
<http://www.jiscinfonet.ac.uk/infokits/learning-space-design>

The Link at Duke
<http://library.duke.edu/blogs/libraryhacks/2008/09/02/what-is-the-link/>

Interesting discussion of the new "Athenaeum" at Goucher College- a new way to build and think about libraries
<http://www.goucher.edu/x17081.xml>

Podcasts & Blogs

<http://chronicle.com/techtherapy/>

Episode 36: The Future of College Libraries

Tech Therapists Scott Carlson and Warren Arbogast discuss what college libraries mean to campuses, the buildings' changing aesthetics, and how they will be designed for future use.

An annotated list of Blogs from WordPress.com on Learning Spaces
<http://wordpress.com/tag/learning-spaces/>