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Kathleen M. Webb  
University of Dayton, kwebb1@udayton.edu

William Dittoe

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Planet Library:

The Center for Today’s Learning, Experimentation and Exploration

William Dittoe
Educational Facilities Consultants, LLC

Kathleen Webb
University of Dayton
In today’s digital world, students no longer rely on printed materials as their primary resource for learning. Instead, they make frequent and steady use of digital information in support of their studies and research. Traditional library spaces have become less utilized as users shift to a reliance on digital information and its accessibility.

Additionally, collaborative learning and interdisciplinary teaching methods have become commonplace in education and require services and spaces not found among traditional library offerings.

For these key reasons, libraries must transition away from their primary roles in the past of book access and storage and find ways to remain relevant to the students and faculty members they serve. They must further leverage their spaces to better support academic and intellectual success.

As an organization, the library can encourage creative thinking and actively serve as a test bed for new ways of delivering information and better methods of teaching and learning.

This paper provides reasons and ways the library can position itself as the foremost place where today’s faculty and students interact and also remain a site of experimentation regarding learning and space.
INTRODUCTION

“The chief contribution of such a radically new and more powerful instrument would be, not to supplement our present ideas of the universe we live in, but rather to uncover new phenomena not yet imagined…”

The above notion was professed by astrophysicist Lyman Spitzer, Jr. a half century before the Hubble telescope provided startling new discoveries about our universe. Since then, fresh insights from observing collisions in distant galaxies have helped scientists test new theories regarding space and time and resolve earlier mysteries.

A similar collision is occurring in higher education. Changing educational practices and shifting campus cultures are requiring new methods of teaching and learning. The resulting insights have sparked agreement among educators that student involvement, combined with active engagement, increased time on task, peer and faculty interaction, and timely feedback are vital to academic success.

As a result, traditional learning spaces, such as classrooms, have become inadequate for today’s preferred forms of active and collaborative learning, and the shift toward digital information is rapidly changing the dynamics of when and how learning takes place.

Additionally, the growing need for expanded faculty development and better implementation of interdisciplinary and team teaching has further resulted in innovative approaches to learning, creating entirely new communities of learners. Therefore it becomes imperative that higher education provides places that create common grounds for active engagement, places that foster socially catalytic interaction, and places that form and celebrate communities. The campus must embrace these concepts as fundamental, routine, and non-negotiable to ensure a strong future.

In response to shifts in learning throughout higher education, some campuses are making noteworthy efforts to transform their environments, creating physical spaces for their communities of learners. Yet overall, where and how best to support the newly emerging learning communities remains primarily uncharted territory. Clearly, a better instrument is needed to help facilitate this learning evolution and foster continued educational discovery.

The library is particularly well suited for this important endeavor—to become “the Hubble of higher education.” It can be the principal place for enhanced collaboration among faculty and students and remain a place of experimentation regarding learning and space.
THE LIBRARY AS AN EXPERIMENTATION FRONTIER

Academic libraries have a strong history of adapting to support campus needs. In the early 19th century, college libraries began changing to support transformations in curriculum. Buildings were designed and built to house larger and more diverse collections of books and periodicals that were being assembled. Small carrels, quiet reading rooms, and desks and chairs were tucked amid stacks and shelves, contributing to a desired atmosphere of quiet, individual thought and study. This design philosophy prevailed from the latter part of the nineteenth century through the early 1990s.

Academic libraries were also among the first campus divisions to fully automate large portions of work. With automation came a period of intense collaboration. Librarians quickly realized that more could be accomplished by sharing work and processes with their colleagues from across the state and eventually across the country and around the world.

As the 20th century concluded, it became clear that libraries were entering a new era. Buildings changed as collections grew to include both print and digital resources. Library services also expanded. The public’s reliance on computers and electronic information increased library needs and raised user expectations. Connectivity and accessibility to the “information highway” soon became two key technologies critical to library services.

Today, libraries must serve a much more tech-savvy user group, one that holds different ideas about how learning occurs. These students have grown up with ubiquitous computing, cell phones, iPods, video games, e-mail, text messaging, the Web, and Google—all means for networking and idea sharing. As a result, learning has become much more social and students expect to find and use spaces that support group and collaborative work.

Further shaping this new era is the increase of overall service culture in the United States. Demands for 24/7 operations and the proliferation of bookstores and coffee shops have also increased the expectations of library users.

Recently, industry literature has touted the concept of Library 2.0, a philosophy that addresses new era issues with a focus on user needs. Library 2.0 enhances library operations through rapid response to campus needs. The concept is also about participation—inviting users to help create relevant services and encouraging them to evaluate the effectiveness of those services in order to maintain relevancy.
The 2.0 concept further encourages libraries to take advantage of technologies and space to deliver services that support both the mission and vision of their institutions.

Despite the many changes and modern concepts, the ultimate goal of academic libraries remains the same—to provide the necessary resources to generate and disseminate information. Meeting the needs of a new era has led the new-century academic library to pursue innovative ways of achieving this goal.

**LIBRARY BUILDINGS – POSITIONED FOR SUCCESSFUL LEARNING**

Libraries are in a unique position to support the many changes occurring throughout higher education learning communities. Part of their capacity to tackle such new-era challenges is due to three key elements they already possess: place, space, and the interface that place and space provide.

**Place.** Most campuses began with multipurpose buildings that contained libraries along with classrooms and administrative offices. As library collections grew, campuses constructed separate, stand-alone buildings. The typical library building was often located in a prominent position and was a vital element within the main academic hub. This remains true for many campuses. Generally, libraries are centrally located and accessible to the great majority of their users.

**Space.** Creating new-era learning environments has become a challenge for many campuses. The effective repurposing and revitalization of many campus buildings is deterred by original construction that includes numerous rooms designed for specific functions.

In contrast, library building designs are remarkably free of such inhibiting factors. The typical library environment consists mostly of open space designed primarily for the purpose of housing printed materials. Moreover, the accelerating shift toward digital resources means that even more open space within libraries is becoming available for other uses.

This has resulted in redesigned library spaces earmarked for new purposes, such as “learning commons” that give students a place for both socialization and study. It also means that more available areas within the library can be dedicated to much-needed experimentation with academic theories of space and learning.
Interface. As the campus community evolves further, academic disciplines grow in number and complexity. Various fields of study have become insulated and departments separated from one another. This has resulted in a collection of campus “silos.” Such separation inadvertently discourages a fully connected faculty community and prevents the interdisciplinary associations that have become increasingly vital to successful academic settings.

Libraries can more readily foster interdisciplinary communities since they are neutral spaces and not “owned” by any one department. They can facilitate faculty-to-faculty interaction as well as interaction between faculty and students.

As new initiatives for creating interdisciplinary faculty communities arise, libraries can provide the physical spaces needed to enhance this vital interaction. They can encourage interactive learning through environments that are typically much more open than standard classrooms with fixed walls.

Additionally, as early adopters of technology, libraries are already wired and ready to support today’s tech-driven learning demands and the accompanying expectations for instant connections and interface that technology inspires.

■ TRANSFORMING THE LIBRARY: A LOGICAL MOVE

As suggested, the library is ideally suited to serve as a center of academic and cultural experimentation on campus. Three additional reasons further support this move:

1. Many essential programs that focus on student success have already migrated into the library, specifically:

Learning Centers
Learning support is increasingly viewed as a vital service for all students. Currently the library serves as a pivotal gathering center for study, tutoring, and learning support. However, the intersection of technology with written and oral communication makes the stand-alone writing center somewhat obsolete. Instead, spaces that can combine research assistance with communication will likely become the norm. Positioning these services within the library gives all students access to necessary services, without the stigma attached to tutoring or other supplemental instruction.
Student Presentation & Project Areas
“Learning by doing” is a highly effective teaching method, one that requires appropriate and adequate space in support of active learning. Indeed, students have already moved beyond being consumers of information to becoming hands-on creators as well. Therefore, space with modern multimedia equipment and software must be available to support student efforts to create new forms of information. Space must also be available for presentation practice. An increase in group work assignments has further resulted in students scrambling for teaming spaces. The library is traditionally a place for all these activities and more, and surveys show an ever-increasing demand for additional and better group project spaces.

IT Training / Experimentation Centers
Today’s student population is tech-driven and there is an ongoing need for assistance and training. As new hardware and software is introduced, it is important to provide necessary assistance along with appropriate space in which to apply technological learning. These services are important to both students and faculty, therefore space should be accessible and convenient for both user groups.

Faculty Centers & Hybrid / Prototype Studios
As teaching methods change and evolve, there must be spaces for experimentation. Campuses should provide sites for creative learning and teaching, along with the resources to support participants as they expand their student-centered learning strategies. Experimental classrooms within the library provide a laboratory for inquiry-based teaching. These can become studios where educators try new teaching approaches and share their experiences with other faculty in a collaborative and supportive setting.
2. Libraries possess the type of space that best supports experimentation.

Flexible and fluid spaces are most suitable for active learning. Spaces not controlled by specific campus divisions and not scheduled within the general classroom pool provide the greatest freedom to develop and explore diverse teaching and learning processes. As mentioned, the library is considered an academically neutral space, which enhances the spirit of collaboration and community necessary for real engagement. It can help foster interdisciplinary cooperation and remove the silo effects common in many institutions.

3. Historically, libraries are the physical and academic crossroads for the campus community of learners (students, faculty and librarians).

The exhibition of learning and knowledge is an important ingredient in fostering a community of learners. Fruitful collaborations can occur within the library setting when a visual artist sees a science poster displaying images from an electron-scanning microscope or when two faculty members from different departments view one another’s publications and recognize the synergy between their research interests. The library as a place of intersection is a critical component to knowledge discovery and interdisciplinary learning.

ENCOURAGING EXPERIMENTATION WITHIN THE LIBRARY

Campuses that recognize the importance of transforming their libraries must go beyond simply converting a library’s openness into newly designed space. They must instead establish the library as a useful and valuable place for experimentation with learning and space. By exploring the relationships among librarians, students, faculty, and others in the campus community, new insights necessary in the evolution of teaching and learning can be obtained, and a genuine transformation of the library can be achieved.

Therefore, any repurposing of space should equally reflect new and creative visions to teach, learn, share, study, and create vibrant campus communities. This starts by researching new ways to visualize library services, its users and spaces, beginning with the role of librarians.
Librarians. With changes in technology and teaching come changes in expectations for academic librarians who can no longer wait for students and faculty to approach them. It is now imperative that they proactively work with faculty on course development and with research, as well as streamline services to give students the support they need.

Academic librarians must demonstrate new skill sets and consider how all aspects of the library—collections, services, staff and spaces—can better support faculty and contribute to student learning. Theirs is a dynamic testing ground for finding optimum ways to cultivate the campus community.

Faculty. Library areas specifically designed for faculty to enhance teaching skills are an important part of educational experimentation. Building physical environments that allow the exploration and development of learning theory within different shaped spaces and flexible configurations, ones equipped with advanced educational tools, a variety of lighting levels, and ways to emulate real-life situations will allow increased understanding of the connections between space and learning. The data gleaned from these models will provide greater insights into how environment can facilitate learning. In addition, the library provides an ideal place to facilitate the faculty/student interaction known to be important to student success.

Students. Greater understanding of how and why students take “ownership” of certain spaces and remain passive in others is also especially important. Thoughtful investigation into what types of spaces create this phenomenon and why feelings of ownership promote greater student engagement will provide essential insights for designers of all academic spaces. Information obtained by experimentation within libraries can be used to design and build new spaces across campuses that similarly draw students into a more active role in their educational development.

In the spirit of experimentation, it is likewise important for students to have access to presentation rehearsal spaces. True learning is the ability to apply knowledge in real-life situations. Students who have honed presentation skills while in college are more likely to have an advantage upon entering the corporate world.

Spaces. New models of library space can also test various types of furniture that are vital for providing flexible and fluid environments necessary for active and collaborative learning. These prototype spaces are also important to the testing of new educational tools, including the latest in hardware and
software. This experimentation is especially beneficial when tools and furniture can be tested in real-life situations within the studio learning environment.

Assessment of these spaces and their use is critical and requires testing, recording, and process sharing. Many within the academic community can contribute to, and benefit from, such experimentation including sociologists, philologists, physiologists, anthropologists, architects, and interior designers. A critical experiment will be to determine how to provide the right levels of privacy for those learners requiring peace and quiet, while still facilitating the collaboration and group work so important to learning.

Library Pioneers
There are a growing number of exemplary institutions that have paved the way in developing new models for library transformation. Many include experimental environments necessary for testing and developing the types of spaces that best support learning.

**Emory University.** Emory was among the first to offer an information commons area in its library. Opened in 1998, the Center for Library and Information Resources (CLAIR) was a joint project between the libraries and Emory’s Academic Technology Group. While rich in technology, it is the user-driven spaces and services that make this space so valuable to the campus. Sharing this space are university controlled classrooms, Emory’s Center for Interactive Teaching, video conferencing space, and the college Language Center. There is an expectation that this space will grow and evolve in response to continuing changes in technology, academics, and user expectations.

**North Carolina State University.** In 2007, North Carolina State’s D. H. Hill Library opened its Learning Commons (LC), described as “an exciting new center for creativity, research, and collaboration…It is a space designed for both individual and group work, inspiration and socializing, research, and relaxation.” Adopting the user-focused concepts of Library 2.0, the NC State students participated in developing most aspects of the design. The space features computers, some with the ability to display images on
large wall-mounted plasma screens allowing for impromptu teaching and demonstration. The LC also makes equipment available to assist students with media creation from sophisticated software and cameras to digital recorders, mp3 players, and tablet PCs. The collaboration spaces in the LC contain flexible systems furniture as well as more traditional study tables and chairs. Finally, services and assistance are provided by librarians as well as IT staff and a large group of highly trained Peer Research Advisors, student workers, and graduate students.

**Georgia Institute of Technology.** In 2006 the library at Georgia Tech opened several spaces that contribute to the learning and teaching mission of its institution. As one of its librarians describes the vision, “We wanted to create a place of community that offered services and social opportunities, and that developed a sense of place far different than current library experiences.” Focus groups uncovered the desire for a space to “refresh the mind as well as the body, accommodate groups of students working at computers, showcase the best and brightest output of Georgia Tech, and accommodate both students and faculty in a common setting for mutually beneficial enterprise, conversation, and acquaintance.”

**A 21st Century Academic Library**

With changes surrounding the library, the following emerging principles can inform campus leaders as they attempt to transform their libraries to serve 21st century learning communities:

**Knowledge Creation.** While professors have always created information, there is an increasing expectation for students to create new knowledge as well. Libraries must support this creation with information, but also with technology, teaching, and mentoring. From accessing information and data to using powerful hardware and software for multimedia design, learners will come to know the library as the place that combines technology and tools with staff who are experienced in their use.

**Scheduled and Unscheduled Learning.** Many educators such as Vincent Tinto speak of the importance of learning that occurs beyond scheduled classroom courses. Libraries represent the perfect places for extending the learning process within a social setting. Providing spaces for activities that bridge the academic and social cultures will be critical. These can include galleries, seminar rooms, rooms for lectures or poetry readings, and small performance spaces. Cafés now provide ideal socialization places and unscheduled learning opportunities within many libraries.
Individual and Group Study. Academic libraries will continue to be a place for heads-down individual study and research, but a need for spaces that facilitate collaboration continues to grow. Areas and tools for different styles of learners should be available within the library. Providing an environment where an individual can find quiet and privacy, but also where groups can find a range of settings, from open to semi-private to private, will be a primary function of the library. Policies on issues such as noise levels and food and drink should be relaxed in appropriate areas.

Faculty as Learners. A command of technology has become a large responsibility for faculty as educators are asked to adopt new tools and learn new methods. Technology has also reduced much of the face-to-face interaction among faculty members. Most educators pursue research online, further reducing colleague interaction and increasing their isolation. The library can play a vital role in reversing this trend and in supporting faculty performance. Open to all disciplines, it should be the perfect setting for faculty development, activities, and interdisciplinary collaborations.

Creating the New Library
The concepts presented herein likely represent a major change initiative for most campus libraries. The following recommendations can help overcome obstacles and address the challenges often presented by significant change.

Benchmark and conduct inquiries. As mentioned, a great deal of experimentation with library transformation is already underway. Campuses can collect insights directly from intrepid pioneers (institutions such as Emory, NC State, Georgia Tech) and from industry articles that profile progressive changes in library services. Online research can provide supplemental information, and visits to campuses transitioning their libraries is also strongly encouraged.

Conceptual Floor Plan of Learning Commons - The proposed layout attempts to address a range of group and individual settings, along with zoned levels of privacy and collaboration. The centrally located café will encourage informal learning and faculty/student interaction.
The EDUCAUSE Learning Initiative (ELI) and the Society for College and University Planning (SCUP) also have developed a wealth of information that can inform an institution in its library revitalization. The Association of College and Research Libraries and the Library Administration and Management Association are other excellent resources for library projects. POD, the Professional and Organizational Development Network in Higher Education, is continually expanding its resources in the areas of learning and teaching.

Overall, the more practical information that is obtained, discussed, and made available prior to any venture into revitalization, the more likely the success of the project.

**Involve key stakeholders.** Positioning the library as an enduring center for student success cannot succeed without full involvement of the campus community. It is imperative that the various stakeholders be involved in the research, design, and planning of any major undertaking. Some of the stakeholders include the following:
- Faculty
- Students
- Information technology
- Facilities
- Administration
- Library services
- Faculty development
- Student development

**Develop a vision of the future.** Planning must begin with a comprehensive vision to guide the process. Establish a vision with the involvement of key stakeholders, and aided by the knowledge gained from benchmarking. A vision statement is invaluable to project success and will serve as an important guide to share with funding sources, current and future library staff, faculty members, students, and others involved in the planning of the library.

**Select a space and begin experimentation.** Transformation isn’t always needed on a grand scale. Start small and try new approaches within specific library spaces. Take one area, try something new, learn from it, and move to the next. The future will evolve from these small experiments.

**Establish a baseline and assess progress.** Understanding how well current space supports student learning, student-faculty interaction, time on task, student engagement, and other important aspects of student success is critical to evaluating future investments in change.
SUMMARY

Libraries must become centers that enhance skills necessary for student success. To do so, they must rethink and reclaim space to increase the number of students who use the library to study, socialize, and learn.

Properly designed libraries, especially those with knowledgeable and tech-savvy librarians, can have a profound influence on guiding students toward critical thinking and the application of knowledge. Additionally, students can benefit immensely from learning within a social environment and from interaction with peers and faculty.

Faculty can also benefit from library transformations. Spaces within the library, coupled with the vital assistance of librarians, instructional designers, and IT personnel, can provide a sanctum to help develop a supportive community of faculty. The interdisciplinary alliances that can develop within the library’s neutral setting will enrich an institution and have wide-ranging educational and professional paybacks.

Benefits to the higher-education institution are numerous, not the least of which is sustainability. Through the library’s experimentation, campuses generate an understanding of how best to design cost-effective educational spaces and create more productive schedules through multi-use. Additionally, a hybrid curriculum that effectively blends technology with face time further allows institutions to implement cost-savings while generating higher student and faculty satisfaction levels.

The re-emergent center of knowledge universe must then become the campus library. Leading with technology and focused on their users, libraries can become bright campus beacons—inviting and welcoming places for communities of learners.