

The Choice for Learning at the University of Puerto Rico at Mayagüez



A Consulting Report by Scott Bennett
Yale University Librarian Emeritus
Senior Advisor, Council of Independent Colleges
www.libraryspaceplanning.com
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Summary

Like other universities, the University of Puerto Rico at Mayagüez confronts a critical choice. It may believe the library's purpose is to support learning. Planning driven by this view will focus on questions of what things (e.g., books and computers) should be in the library and how services can be developed to support the use of these things. Design decisions will be driven by library operations, and librarians will control most of library space for operational purposes. The people the library serves will usually be named *users*, *clients*, *customers*—or maybe *readers*.

Alternatively, the university may believe that library services should, as much as possible, follow library resources into virtual space. The library's physical space then becomes primarily learning space, not service space, and many staff employed by the library will be educators, not service professionals. Planning driven by such a belief will focus first on what should *happen* in the library, rather than what should *be* in it. Design decisions will be driven by the culture of learning at UPRM, and students will control most of library space for purposes of learning. Those using library space and working with library-based educators will most often be named *learners*.

Making the second of these choices is to affirm that the business of the library is to enact, not simply to support, institutional mission. Making the second of these choices is to choose a learning mission for the library. Making the second of these choices is to embark on cultural change within the library and across the campus.

This report makes thirteen recommendations that will advance a choice for learning. These recommendations are listed here in order of their temporal urgency.

Most urgent recommendations:

- **Recommendation 1:** Appoint a Library Director capable of leading the cultural change involved in making a choice for learning.
- **Recommendation 3:** Undertake a systematic and data-dependent study of the adequacy of the library collections.
- **Recommendation 4:** Strengthen funding for the collections in base-building increments over five years.
- **Recommendation 8:** Enhance the space for collaborative study in the library.
- **Recommendation 9:** Enhance the many non-classroom spaces available for study elsewhere on campus.

Recommendations of mid-level urgency

- **Recommendation 5:** Explore possibilities for enhancing the effectiveness of university-wide licensing of digital information resources.
- **Recommendation 6:** Experiment with vendor approval plans for making book selection more effective.
- **Recommendation 12:** Shift the focus of library assessment from user satisfaction (where readers are treated as consumers) to library use (where readers are treated as learners).

Recommendations of less urgency

- **Recommendation 2:** Undertake a set of library benchmarking studies using a comparison group appropriate for the University of Puerto Rico at Mayagüez.
- **Recommendation 7:** Determine how critical the need for additional shelving is throughout the university's libraries and investigate a high-efficiency shelving unit as a means of addressing shelving needs system-wide.
- **Recommendation 10:** Consider using surveys designed to improve learning space design by linking design practice to key learning behaviors identified by the National Survey of Student Engagement.
- **Recommendation 11:** Consider undertaking a systematic study of the learning culture among students at the University of Puerto Rico at Mayagüez.
- **Recommendation 13:** Create a Learning Commons in the General Library.

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Introduction

Dr. Mildred Chaparro, Dean of Academic Affairs, invited me to visit the University of Puerto Rico at Mayagüez on 30 September – 3 October 2007 to consult on the services and space of the General Library. I met with Chancellor Jorge Arocho and Dean Chaparro; with most members of the library staff; with several faculty and students; with Dr. Pedro Resto, Director of the Office of Continuous Improvement and Assessment; with Victor Díaz, Information Technology Director; with Professors Madeline Rodríguez and Neysa López and Mr. Steven Rey of the counseling service; and with Professors Caroline Rodríguez and Judith Casey of the tutoring services. I also visited the Experimental Station Library at the Botanical Garden in Río Piedras.

I am deeply grateful for the warm welcome I was given in Mayagüez and for the generous accommodation made to my inability to speak Spanish. I greatly admire the commitment to excellence, the candor, and the dedication to the library and to student success that I encountered at every turn in my visit.

This report describes the radical changes that academic libraries are experiencing and the fundamental challenge those changes present. It then discusses three key issues now before the UPRM library: leadership, the collections, and the use of space. I make 13 specific recommendations in the course of this report, providing an urgency ranking (1 = most urgent to 3 = less urgent) and identifying the persons who might initiate action on each. Attachment 1 comments on the Experimental Station Library at the Botanical Garden in Río Piedras.

The choice for learning

As recently as the 1980s, academic libraries ran information monopolies. Libraries were largely the only source for scholarly publications, and readers typically had to come to the library building to use those resources. These conditions began to change fundamentally and rapidly in the 1990s, especially with the development of broad Internet access through the World Wide Web starting in 1993, so that now libraries are but one, and often not the preferred, source for information, and readers increasingly have few reasons to come to the library building. We have moved from an earlier, information-constrained environment to an information-rich environment. Attention, not information, is now the scarce resource. Librarians have participated vigorously in destroying the old monopoly, especially through the provision

of online resources. Our obligation now is to create a new paradigm for library services and space to replace the old one.

A key element in the new paradigm will be to capitalize on the ever accelerating movement of information resources into virtual space by moving much of our reference service and many of our training functions into virtual space as well. Doing this may help shift staff costs from lower to higher priority functions, break the automatic association of librarians with the library building, and open possibilities for librarians to focus more effectively on students' academic success by working throughout the campus as collaborators with faculty, with educational technologists, and with tutoring staff.

Fundamentally, the choice put before us by revolutionary changes in information technology is that between viewing the library as an information repository on the one hand and as a learning enterprise on the other. We may continue to see the library as a source of information; treat readers as information consumers; and cast the library staff as people who *support* learning by facilitating the use of information resources. Alternatively, we may choose to treat students as learners rather than as consumers; view the library building as one of the chief places on campus where students take responsibility for and control over their own learning; and employ library staff to *enact* the learning mission of the university by virtue of being educators.¹ Choosing to do the latter may properly be called making a choice for learning and involves making significant changes to the culture of the library and of the campus.²

Leadership

The library's Mission Statement describes the library as primarily a facilitator of the university's academic programs, one that "*allows* users to reach academic excellence" (emphasis added).³ The library will need a different vision of itself if it is to become an active agent in creating academic excellence. Librarians will have to be deeply committed to developing an educator's vision of the library. At the same time, both faculty and students will need to shift their own expectations about the library and librarians. A deep and pervasive cultural change within and beyond the library is required. Such change is exceptionally difficult and requires active leadership. That leadership must come from librarians themselves, from the Dean of Academic Affairs, from the Chancellor, and not least from the Director of the library.

The library faces several critical leadership challenges that make it imperative to appoint a permanent library director. Subsequent sections of this report describe leadership challenges posed by the collections and library space. The focus here is on the core educational mission of the university.

¹ Two specific illustrations of the nature of this choice may be helpful. First, at Immaculata University, Sister Carroll Isselmann, the chief academic officer, participates directly in the search for all professional librarians and insists that each search be shaped as a search for an educator. By such action, this chief academic officer signals to her campus that the university and its library are making the choice for learning. Second, reflecting on her experience in renovating the library at Wartburg College (IA), Jill Gremmels, previously the College Librarian there, reflected that "libraries have tried to support learning, but I don't think libraries have traditionally said 'We want to make learning happen here.'" Quoted in Scott Bennett, *Libraries Designed for Learning* (Washington, DC: Council on Library and Information Resources, 2003), p. 3; available at <http://www.clir.org/pubs/abstract/pub122abst.html> (12 October 2007).

² This topic is treated more fully in Scott Bennett, "The Choice for Learning," *Journal of Academic Librarianship*, 32 (2006): 3-13. See also Attachment 2 for an instructive description, by Jill Gremmels, of a paradigm shift in libraries parallel to that in the classroom.

³ Mission Statement of the UPRM General Library; available at <http://www.uprm.edu/library/en/mision.html> (12 October 2007).

Fundamental changes wrought by information technology have far-reaching consequences for how we define success for libraries. “As access to all kinds of information increases, our key questions shift from inputs (how many texts in the library holdings?) to outputs: are students using the materials effectively, and do the technology and the access to information it provides contribute to student learning?”⁴ This question is now a central concern for UPRM, which—moved by its own aspirations and the counsel of the Middle States Commission on Higher Education—is giving focused attention to its general education program and to the educational outcomes expected of all graduates. The UPRM General Education Assessment Plan approved in February 2007 identifies nine such outcomes, several of which are closely allied with the information literacy that librarian educators champion.⁵

To complement campus actions strengthening general education, the library is strengthening its program in information literacy, principally through the CEDIBI (in English, the Center for Information Literacy and Bibliographic Research). CEDIBI staff have had notable success in communicating with faculty about how they enact an educational mission and help achieve the learning outcomes to which the university is committed. I heard warm praise of CEDIBI from faculty. The description in the library’s May 2007 self study of CEDIBI’s impact is, however self-contradictory (see p. 39 of the report), and the self study suggests that CEDIBI staff are somewhat isolated within the library (p. 41). The ACRL visitors urged more attention to information literacy (p. 3 of their August 2007 report) and recommended the reallocation of library staff to strengthen CEDIBI (p. 6). I concur emphatically with these observations.

As CEDIBI staff are well aware, collaboration between faculty and librarians is essential to achieving the learning outcomes set for UPRM students.⁶ I believe the collaboration needs to be still broader. The university’s educational technologists and its tutoring staff represent, along with the faculty and librarians, the university’s largest investment in students’ success. To get full value from this investment, the university must foster a broad and deeply collaborative effort among all four groups. The isolation of the CEDIBI librarians is mirrored in the apparent isolation of the discipline-specific tutoring staff from one another⁷ and from the counseling staff who provide non-discipline based tutoring. A parallel situation may exist among information technologists. To the extent that educational technologists (as distinguished from systems technology staff) are available to students and faculty, they are available only through individual departments or disciplines.

A recent trend in library space design is the creation of what are called learning commons, defined as places where librarians, information technologists, and student services staff are brought

⁴ This testimony came from workshop applications and survey data generated by the workshops on information literacy sponsored by the Council of Independent Colleges (CIC) and the National Institute for Technology & Liberal Education (NITLE), reported on in Scott Bennett, “Campus Cultures Fostering Information Literacy,” *portal: Libraries and the Academy*, 7 (2007): 147-167.

⁵ Specifically, the ability to communicate effectively; to identify and solve problems; to think critically and synthesize knowledge; to apply the tools of information technology; to apply ethical standards; and to engage in life-long learning. All are central concerns of information literacy.

⁶ See, for instance, the excellent collection of essays edited by Dick Raspa and Dane Ward, *The Collaborative Imperative: Librarians and Faculty Working Together in the Information Universe* (Chicago: Association of College and Research Libraries, 2000). These authors’ initial essay, “Listening for Collaboration: Faculty and Librarians Working Together,” pp. 1-18, is especially worth reading. See also Alison Cook-Sather, “Unrolling Roles in Techno-Pedagogy: Toward New Forms of Collaboration in Traditional College Settings,” *Innovative Higher Education*, 26 (Winter, 2001): 121-139.

⁷ UPRM Professors Caroline Rodríguez and Judith Casey have for some years been responsible for tutoring in mathematics and English, respectively, but had never met one another before talking with me on 2 October.

together for collaborative action fostering learning.⁸ I will return to this topic later in this report. The point here is to comment on how fragmented the work of these UPRM staff now appears to be; to observe how that fragmentation and isolation is reinforced by the stigma that (wrongly) attaches to some tutoring services; to suggest that building collaboration among these staff and with the faculty so as to maximize the impact of all on institutional mission will require exceptionally strong leadership for campus-wide cultural change; and to argue that without this collaboration, the university will severely handicap itself in achieving the crucial student outcomes it has identified for its General Education program.⁹

► **RECOMMENDATION 1** (*Urgency I*): The ACRL visitors stressed the urgency of appointing a library director (p. 7). I argue that UPRM needs someone not just to lead the library but to effect change in the academic culture of the university. Any failure to act with this difference in mind will produce an appointment that falls short of what the university's needs and its students deserve.

The Dean of Academic Affairs should consider who among the General Library staff may be capable of leading campus-wide cultural change; confer widely within University of Puerto Rico system to identify librarians who might be capable of such leadership; and consult with past and present officers of REFORMA¹⁰ to determine how likely it is that UPRM might recruit a capable librarian leader from outside the university.

Given the urgency of appointing a library director and the scope of leadership challenges before that person, the Dean of Academic Affairs should (depending on the outcome of the inquiries just described) consider appointing a highly regarded member of the UPRM faculty to this position.¹¹ This person should have a successful record in change management and be deeply committed to seeing that librarians, educational technologists, and tutoring staff will work together and with the faculty to advance the student outcomes set by the university. Most fundamentally, this person must understand the difference between a library that only *supports* the institutional mission of UPRM and a library that *enacts* that mission.

Collections

The most critical question about the library as an organization is the degree to which it embraces its educational role and enacts the mission of the university. By contrast, the critical question about the library collections remains the familiar one of how adequately they *support* study, teaching, and research.

This is a complex question not easily answered. I was not at the university long enough to develop an independent view of the matter, so I can only report that while I heard no complaints about the collections from students, most of the faculty commented quite negatively on the adequacy of the collections. The ACRL visitors report a loss of ground—indeed, an accelerating loss—arising from

⁸ See Donald Robert Beagle, with Donald Russell Bailey and Barbara Tierney, *The Information Commons Handbook* (New York: Neal Schuman, 2006), p. xviii.; and Scott Bennett, “Designing for Uncertainty: Three Approaches,” *Journal of Academic Librarianship*, 33 (Jan 2007): 165–179.

⁹ For more on this topic, see George D. Kuh and Robert M. Gonyea, “The Role of the Academic Library in Promoting Student Engagement in Learning,” *College & Research Libraries*, 64 (July 2003): 256-282.

¹⁰ REFORMA is the National Association to Promote Library and Information Services to Latinos and the Spanish Speaking; its Web site is available at: <http://www.reforma.org/> (12 October 2007).

¹¹ Such appointments are not common, but they are sometimes made with the purpose of repositioning the library within the university (as was the case at Cornell University some years ago). Harvard University has long had a faculty member as its University Librarian.

funding for the collections that has not kept pace with collection costs. The result, they affirm, is “tremendous erosion in the strength and completeness of the collections at Mayagüez” (p. 2).

Inexplicably, the library’s May 2007 self study provides no focused discussion of the collections and their adequacy. The section on Assessment suggests action needed on several matters (pp. 30-31), only one of which (about weeding) relates to the collections. Other sections of the report on Services, Resources, Access, and Budget—where one might expect to find information about the collections—are largely silent on the subject. None of the self-study recommendations addresses the collections, except possibly the recommendation that the total library budget should be at least 6% of the total UPRM annual budget (p. 55). No explanation of this target or how the money might be used is given.

In these circumstances, it is little wonder that the Dean of Academic Affairs expressed to me puzzlement and misgivings about what action might be appropriate.

The following six recommendations address collection matters. The first three are about collection management broadly conceived, and the last three focus on specific matters. All require leadership and all involve significant change.

► **RECOMMENDATION 2** (*Urgency 3*): Library staff should undertake a set of benchmarking studies. How do UPRM and its library compare to other similar institutions, and what do such comparisons suggest as appropriate for action on the collections (and on other matters as well)?

The Chancellor and Dean of Academic Affairs should guide decisions about the composition of the comparison group for benchmarking. If a comparison group does not already exist for UPRM, the university might consider the University of Missouri Rolla and some of the following institutions: Colorado Schools of Mines, Georgia Institute of Technology, New Jersey Institute of Technology, and the South Dakota School of Mines & Technology.¹²

► **RECOMMENDATION 3** (*Urgency 1*): The self study expresses the hope that “a culture of library self-evaluation and assessment will be institutionalized in the future” (p. 21). In acting on this hope, library staff should focus assessment efforts on the collections, pursuing in a systematic and data-dependent way such questions as:

- How adequate are the collections in supporting particular programs of study, instruction, and research at UPRM?
- How intensely are various parts of the collections used?
- Are the means of bibliographic access (including especially access to online journals “bundled” in licensed resources) transparent and easily used?
- Do readers have timely access to the collections (especially as regards time delays involved in selection, acquisition, cataloging, and binding processes)?
- What are the library’s specific priorities for strengthening parts of the collection, and how are those priorities established?

It is possible that such assessment will uncover some disquieting facts. It is essential that everyone involved work toward a clear perception of the facts and their implications and not

¹² In suggesting these institutions, I have focused on publicly funded institutions with programs primarily in engineering and the sciences. Only the University of Missouri Rolla is a close parallel to UPRM in being an engineering and technology campus that is part of a larger university system. The other institutions are free standing institutions, though with distinctive roles within the set of public universities of their respective states. If independent institutions were to be included in the comparison group, the following might be considered: Illinois Institute of Technology, Michigan Technological University, Rensselaer Polytechnic Institute, Stevens Institute of Technology, and Worcester Polytechnic Institute. The institutions mentioned here and in the text are all in the comparison group used by the University of Missouri Rolla. I am indebted for this information to Chris Jocius at the Wilson Library, University of Missouri Rolla.

allow the inclination to blame or to engage in defensive behavior distort perception or obstruct the path toward corrective action.

► **RECOMMENDATION 4** (*Urgency 1*): It is likely that an assessment of the collections will indicate a need for substantially increased funding. The Chancellor and Dean of Academic Affairs should commit to providing that increase, probably in annual, base-building increments over a five year period starting with the 2008-09 budget. These increases should be tailored to the findings of the assessment activities just outlined and take account of action on Recommendations 5 and 6, following.

► **RECOMMENDATION 5** (*Urgency 2*): A few comments made to me suggested that the licensing of digital resources may be burdened with parochial decision making at the several UPR campuses, with the possible result that cost-effective access to online information resources for students and faculty is not being maximized system-wide. If these conditions do in fact exist, librarians and the Dean of Academic Affairs should work with the Vice President for Academic Affairs to ensure that UPR is maximizing the impact of its spending on digital resources by strengthening collaborative decision making throughout the university and by consortial action with other organizations.

► **RECOMMENDATION 6** (*Urgency 2*): It was not clear to me how decisions are made about journal subscriptions and the licensing of digital resources, but the selection of books is largely in the hands of teaching faculty, who have departmental budgets allocated by the library to support such selection. Faculty members described this activity as producing results of uneven and uncertain quality, and the library's self study suggests the inadequacies of the process (p. 41). Book selection directly dependent on the faculty is commonly found at small colleges and universities, but not at large research oriented campuses. Such selection practices are driven by a sense of book funds as a particularly scarce resource that cannot prudently be entrusted to librarians, who are not expertly informed about the disciplines or about student and faculty needs. These practices generate high and largely hidden unit costs in terms of faculty time and ordering procedures at the library, even as they produce collection results acknowledged to be of uncertain merit.

Library staff, working with selected departments, should experiment with approval plan selection. In these plans, specialist staff employed by book vendors select titles against a carefully constructed profile of information needs. Librarian and faculty responsibilities shift from selection to the assessment of selection results and to refining the profile as necessary. The point of the recommended experiments is to assess how adequately approval plans might serve UPRM and how total costs (including the many hidden costs of current practice) compare.

► **RECOMMENDATION 7** (*Urgency 3*): I heard some comments that the UPRM library is running short of shelving for its collections. I was told this is true of some other libraries in the UPR system. The system's Vice President for Academic Affairs, working with librarians from throughout the university, should determine the facts about shelving needs and shape appropriate action. The instillation of moveable, high-density shelving may be appropriate where more space is needed for frequently used collections on a given campus. For infrequently used research material, a single high-efficiency shelving facility serving the entire university will likely provide the best service, optimal preservation conditions, and the lowest unit costs.¹³

¹³ For more information about shelving facilities, see Willis E. A. Bridegam, *Collaborative Approach to Collection Storage: The Five-College Library Depository* (Washington, DC: Council on Library and Information Resources, 2001); available at <http://www.clir.org/pubs/abstract/pub97abst.html> (12 October 2007). See also Danuta A. Nitecki and Curtis L. Kendrick, eds., *Library Off-site Shelving: Guide for High-Density Facilities* (Englewood, CO: Libraries Unlimited, 2001).

Library space managed by students

Most learning at colleges and universities happens outside of the classroom. Making a choice for learning requires an understanding of both where learning happens and of how well non-classroom spaces support students in that educationally magical moment when, building on work begun in the classroom, they take responsibility for and control over their own learning. Existing, massive investments in campus space are arguably underperforming if they fail to foster such learning.

During the day and early evening, I observed informal learning spaces provided in the Student Center and in several academic buildings. All of these spaces were in use, and sometimes crowded by students, even though they typically offer only cast-off furniture, generally drab conditions, no provision for technology beyond outlets and wireless connectivity, uncertain access to chalk boards, and sometimes unreliable air conditioning. These spaces are open 24 hours daily or close only when security personnel close buildings or portions of the campus. None of these spaces was monitored. Students reported no concern about inappropriate behaviors happening in these spaces nor any difficulties in maintaining the academic purpose of these spaces. These spaces are frequently used for group study and can be somewhat noisy, but students did not complain about the noise. Indeed, many said they study best in spaces that are not too quiet. Few students said they studied in the library as well as in these non-library spaces.

I was in the General Library for much of two days, and it was always busy with considerable numbers of students working at individual carrels, at the comparatively few open tables, and at the computers restricted to library resources.¹⁴ The library has a small number of group study rooms that are kept locked and must be reserved for use; these rooms were all empty when I visited them, although I was told they are used in the evenings. The library primarily accommodates individual study¹⁵ and works to maintain low noise levels. Library staff feel a need to guard against inappropriate behaviors in the few rooms available for group study. The May 2007 self study found that the majority of library users are pleased with library facilities (p. 46); no information is offered about library avoidance among students.

The contrast between library and other non-classroom spaces used for learning is striking. The UPRM campus seems to offer two distinctive—and largely segregated—environments in which students can take responsibility for and control over their own learning. It is hard to understand why a building so large (and costly) as the General Library should support so narrow a range of learning behaviors.

► **RECOMMENDATION 8** (*Urgency 1*): Library staff, working with the university architect, should significantly increase the space available for collaborative learning in the library building. Library staff should abandon the wish to control against inappropriate behavior and depend on the self-regulating behaviors successfully in place elsewhere on campus. There should be little concern about actively managing noise in these collaborative learning spaces (except for the need to protect the existence, in reduced number, of quiet individual learning spaces in some parts of the library). The primary cost for these collaborative learning spaces will be for furniture and paint. These spaces will work best when librarian control of them is relaxed and student control

¹⁴ The reason given for limiting the capabilities of these machines is that if they were equipped with productivity software (e.g., Office and e-mail), such use would dominate and no library computers would be available for gaining access to the library catalog and online resources. It is hard to believe such access would be difficult on a campus where perhaps 70% of students have their own computers and where there are a number of computer laboratories. It is easier to believe that too few computers are available in the library and that the proper response is to add machines rather than to cripple those that are available. The creation of a learning commons (Recommendation 13) would provide an appropriate environment for increasing the number of computers in the library.

¹⁵ There are relatively few open tables for group study in the library. Those located in the Colección Puertorriqueña are often used by students who have no need for the collections in that unit.

enhanced. The fundamental aim of these spaces is to enable students to take responsibility for and control over their own learning.

► **RECOMMENDATION 9** (*Urgency 1*): The Dean of Academic Affairs, working with the university architect and the appropriate deans, should significantly enhance the quality of the many learning spaces available to students throughout the campus. Again the primary costs will be for furniture, paint, and reliable air-conditioning. In making this investment (and parallel investments in the library), the university administration will signal the importance it attaches to students taking responsibility for and control over their own learning. New investment in the exceptionally tired spaces where this is now happening is one way for the university to honor and celebrate, on a daily basis, the academic endeavors of its students.

The university should regard investment in collaborative learning spaces, both in the library and elsewhere on campus, as low-hanging fruit in its effort to strengthen the physical environment for learning at UPRM. Such improvements will be relatively inexpensive and will yield immediate and significant benefits. Beyond this, the university should build a more systematic understanding of the complex interplay between learning and the physical environment. This topic is little investigated or understood in higher education.¹⁶ Indeed, as regards the specific case of academic libraries, planning is dominated by a solipsistic concern with library operations and is rarely informed by a systematic understanding of either student learning behaviors or modes of faculty teaching.¹⁷

Two self-study methods might be used to help guide the university's long-term and more substantial investments in learning space, including investment in renovating the General Library:

► **RECOMMENDATION 10** (*Urgency 3*): The Dean of Academic Affairs might consider improving the performance of learning spaces by strengthening the alignment between space planning and specific learning behaviors identified by the National Survey of Student Engagement (NSSE) as factors in effective educational practice. I have recently developed a pair of survey instruments (one for students and another for faculty) that ask which of a dozen specific learning behaviors are personally important to the respondent, whether the campus provides space that fosters the learning behaviors identified as important, and where those spaces are. The first use of these instruments shows that students and faculty differ somewhat in the learning behaviors they identify as important and differ greatly in how they see the learning geography of the campus. University investments in learning space might be more successful if built on such information.¹⁸

► **RECOMMENDATION 11** (*Urgency 3*): To ensure the best performance of investments in learning space, the university will need to build a systematic understanding of the learning behaviors of UPRM students. The challenge is to understand the culture of being a student. The

¹⁶ Nancy Van Note Chism observes that very little has been written that applies learning theory to the design of higher education learning spaces; see “A Tale of Two Classrooms” in *The Importance of Physical Space in Creating Supportive Learning Environments*, ed. Chism and Deborah J. Bickford, New Directions for Teaching and Learning, No. 29 (San Francisco, CA: Jossey-Bass, 2002), p. 8. The landmark report *How People Learn: Brain, Mind, Experience, and School*, ed. John D. Bransford, et al. (Washington, DC: National Academy Press, 1999) is silent on space design, as is Betsy Barefoot, et al., *Achieving and Sustaining Institutional Excellence for the First Year of College* (San Francisco, CA: Jossey-Bass, 2005). Both works exemplify the neglect of the physical environment in understanding learning behaviors. The best, most recent attack on this lacuna is Diana G. Oblinger, ed., *Learning Spaces* (Boulder, CO: EDUCAUSE, 2006). Available at: www.educause.edu/learningspaces (12 October 2007).

¹⁷ See *Libraries Designed for Learning*, pp. 20-22.

¹⁸ More information about the surveys is available at my Web site, www.libraryspaceplanning.com and in my essay, “Designing for Uncertainty,” pp. 171-175. Information about using these free surveys is available upon request.

Dean of Academic Affairs, counseling staff, and the Director of the Office of Continuous Improvement and Assessment should inform themselves about studies undertaken at other institutions to build a systematic understanding of the culture of student learning and decide whether similar self-study would be productive at UPRM.¹⁹

Library space managed for instructional purposes

Making the choice for learning requires that we focus first on space students control for their own learning. Such a focus does not preclude attention to library services, but treats services as a second question. Parts of traditional library services can and should be transformed (e.g., self-service circulation) or moved into virtual space (e.g., online reference and help with technology questions). A much smaller set of face-to-face services will remain to be accommodated in library spaces. By far the most important of these will be the library's instructional services—the services that (like classroom instruction) launch autonomous learning among students. It should be noted that while some of these instructional activities may appropriately be based in the library building, experience indicates that library instruction is most effective when provided collaboratively with the faculty and in close association with regular course meetings.

► **RECOMMENDATION 12** (*Urgency 2*): Librarians and the Director of the Office of Continuous Improvement and Assessment should consider depending less on surveys of user satisfaction (which regularly show high levels of satisfaction) and look more to information about the character and extent of library use (which regularly shows problematic and low levels of use). The key here is to regard students less as consumers and more as learners and to appreciate the genuine difficulties that confront anyone wanting to make the library an instructional space.²⁰

► **RECOMMENDATION 13** (*Urgency 3*): If UPRM wishes to use the library building as space for instruction that launches the information literate learning envisioned in the UPRM General Education Assessment Plan approved in February 2007, it should consider creating a learning commons in the library. “In the last decade information [and learning] commons have made a sudden, dramatic, and widespread appearance in academic and research libraries across the country and around the world.”²¹ Indeed, the information commons has in many ways come to substitute for the card catalog as a principal means of defining space as library space.

The essence of a learning commons, as distinguished from an information commons, is that it enacts, rather than supports, institutional mission. The difference is one of aspiration, and the wish to create a learning commons will require substantial leadership in building strong

¹⁹ I know of only two such studies, both undertaken by anthropologists. One is by Richard A. O'Connor, “Seeing duPont [Library] within Sewanee and Student Life,” a substantial appendix to the “Task Force Final Report for the Jessee Ball duPont Library,” 2005; available at: <http://library.sewanee.edu/libplan/plan1.html> (12 October 2007). The other is a newly published study by Nancy Foster and Susan Gibbons, eds., *Studying Students: The Undergraduate Research Project at the University of Rochester* (Chicago: Association of College & Research Libraries, 2007).

²⁰ The educational utility of this shift in perspective is suggested by the finding that at one highly selective liberal arts college, two-thirds of students identified no reason at all that motivated them to go to the library frequently or even sometimes. Arguably, the library building at this college is a significantly underperforming asset. See “Designing for Uncertainty,” p. 169.

²¹ Charles Forrest and Lisa Janicke Hinchliffe, “Beyond Classroom Construction and Design: Formulating a Vision for Learning Spaces in Libraries,” *Reference & User Services Quarterly*, 44:4 (Summer 2005): 296.

collaborative action among the faculty and librarians and with the now somewhat fragmented educational technologists and tutoring staff at UPRM.²²

Conclusion

As recently as twenty years ago, academic libraries operated information monopolies. They were virtually the only campus source of scholarly information, and users had to come to the library building to use most information resources. That monopoly has now collapsed, most particularly because of the revolutionary changes brought by information technology since 1993. In these new circumstances, the University of Puerto Rico Mayagüez confronts a fundamental choice regarding its library.

The university may believe, as the library's present mission and vision statements affirm, that the library's function is to support learning and that while "technological changes have driven libraries to modify the way they do business . . . the purpose and essence of libraries continue to be the same."²³ Planning driven by such beliefs will most probably focus on questions of what things (e.g., books and computers) should be in the library and how services can be developed to support the use of those things. Design decisions will be driven by library operations, and librarians will control most of library space for operational purposes. The people the library serves will usually be named *users*, *clients*, *customers*—or maybe *readers*.

Alternatively, the university may believe that library services should, as much as possible, follow library resources into virtual space. The library's physical space then becomes primarily learning space, not service space, and many staff working in the library building (and, it should be emphasized, elsewhere on campus as well) will be educators, not service professionals. Planning driven by such a belief will focus first on what should *happen* in the library, rather than what should *be* in it. Design decisions will be driven by the culture of learning at UPRM, and students will control most of library space for purposes of learning. Those using library space and working with library-based educators will most often be named *learners*.

Making the second of these choices is to assert that the business of the library is to enact, not simply to support, institutional mission. Making the second of these choices is to choose a learning mission for the library. Making the second of these choices is to embark on cultural change within the university and across the campus.

That I champion the second of these choices matters very little. What matters is the choice the university makes and how it signals that choice, particularly in securing leadership for the library and in using library space. The familiar fate of consulting reports is to sit un-used on a shelf. The better outcome for this report is that it will help catalyze thinking, and decisions, about the choices now before academic libraries and the University of Puerto Rico at Mayagüez. What is important is that UPRM librarians and the many others with whom they collaborate cultivate a vision that is responsive to the revolutionary situation of academic libraries, that will strongly motivate action, and that is authentically their own.

²² For more information about the learning commons, see Beagle, *The Information Commons Handbook*, and Scott Bennett, "The Information or the Learning Commons: Which Will We Have?" (Attachment 3; forthcoming in the *Journal of Academic Librarianship*).

²³ Vision statement of the General Library; available at <http://www.uprm.edu/library/en/mision.html> (12 October 2007).

Respectfully submitted

Scott Bennett
Yale University Librarian Emeritus
Senior Advisor, Council of Independent Colleges
scott@libraryspaceplanning.com
<http://www.libraryspaceplanning.com>

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ATTACHMENT 1

Comments on the Experimental Station Library at the Botanical Garden in Río Piedras

The Experimental Station Library is a unit of the General Library at UPRM, but I will comment on it separately because of its distance from Mayagüez and because of its concern with the research programs of the Experimental Station. The library's self-evident and strong focus on mission left us talking primarily about space utilization.

Our conversation began where most discussions of library space begin, with the *things* that fill the space. Much of the library's space is devoted to the collections, which occupy three large rooms, two of which are closed to readers. Much staff effort is devoted to managing the collections and trying to secure a reasonable fit between them and the space available. This is necessary and important work, but it pays decreasing dividends as more and more of the current literature needed by Experimental Station researchers is available online. Like users elsewhere in higher education, these researchers have fewer and fewer occasions to visit the library as a physical place.

Other spaces at the library used primarily by readers are a room devoted to current journals and open access computers and a large classroom used (by non-librarian staff) for distance education. The reference desk is located in a relatively large hallway that is the principal arrival point for this bottom floor of the building. The hallway is graced by glass walls that look onto a small but handsomely planted courtyard.

The library staff has considerably improved the organization of and access to the print collections. This effort has understandably kept staff focused on the question of adequate space for the collections. It appears staff have maximized the collection space now available to them and that significant further improvements will require university-wide action on a shelving facility for infrequently used research material (see Recommendation 7), which the Experimental Station Library holds in large amounts.

Conversation with two of the Station's research faculty indicated they and their colleagues have no space, beyond their laboratories and offices, in which to meet informally or to build a broad sense of research community involvement and enterprise. I believe the library can and should fill this need. Doing so would not comprise but rather enhance its established function as a center for informed inquiry at the Experimental Station. The least expensive ways to do this would be to:

- Remove entirely the large but relatively little-used reference desk from the entry hallway and signal the availability of professional assistance in the offices that open onto the hallway, directly behind the existing reference desk.
- Move the current journals into the entry hallway.
- Furnish the entry hallway with soft seating and other furniture appropriate to a lounge or small academic commons. The furniture should be arrayed in ways that maximize the principal asset of this space, the windows overlooking the courtyard (which is itself a dramatic reminder of the mission of the Experimental Station).
- If sufficient space remains in the entry hallway, provide coffee and food vending machines there. Otherwise, provide these amenities in the room where the computers remain.
- Ensure that the kitchen area is open and welcoming to Experimental Station faculty and staff, and not just to librarians.

I was told the room used for distance education could be used for library purposes. This room is closed off from the entry hallway and the public spaces associated with the hallway. Changing the

character of this room would require opening a doorway onto the entry hallway (which provides direct access to all of the other public spaces of the library) and perhaps replacing part of the masonry wall with glass. This might be well worth doing should the changes described above generate an increase in use of the library's communal spaces or of the public access computers.

Reconfiguring the Experimental Station Library to take advantage its principal design assets—the entry hallway with its lovely view into the courtyard—may run afoul of building code issues and fire marshal concerns. If that is the case, the classroom space becomes the key (though a more expensive key) to strengthening the library as a center for informed inquiry and a nucleus of research community involvement and enterprise at the Experimental Station.

ATTACHMENT 2

Putting Learning First

Gillian S Gremmels
 Leland M. Park Director of the Davidson College Library
 PO Box 7200
 Davidson, NC 28035-7200

“Simply ask, how would we do things differently if we put learning first?” As Robert Barr and John Tagg showed in their 1995 *Change* article, this seemingly simple revision of priorities is a “shift [that] changes everything.”²⁴ This article has captured the attention of many in the higher education community. Peter Ewell claims it is “arguably the most cited article ever published in *Change*.” The distinction between the Instruction Paradigm and the Learning Paradigm that Barr and Tagg make is indeed revolutionary, reorienting both the goals and means of higher education.

A parallel paradigm shift can be equally transformative for college libraries. Academic libraries can be seen as operating under a paradigm, here called the Information Provision Paradigm, so entrenched it is seldom recognized. The shift to a Learning Library Paradigm changes everything, just as the teaching-to-learning paradigm shift transforms the institution. A brief conceptual description of a paradigm shift for libraries follows; it is designed to echo the differences in paradigms described by Barr and Tagg.

Instruction Paradigm	Learning Paradigm	Information Provision Paradigm	Learning Library Paradigm
<i>Mission & Purpose</i>		<i>Mission & Purpose</i>	
Provide/deliver instruction	Produce learning	Collect, organize, preserve, and access recorded knowledge	Produce learning
Transfer knowledge from faculty to students	Elicit student discovery and construction of knowledge	Give students access to information in the collection	Elicit student discovery and construction of knowledge
Offer courses and programs	Create powerful learning environments	Offer many hours of access	Create powerful learning environments
Improve the quality of instruction	Improve the quality of learning	Improve the quality and quantity of the collection	Improve the quality of learning
<i>Criteria for Success</i>		<i>Criteria for Success</i>	
Inputs, resources	Learning and student-success outcomes	Inputs, resources (collection size, budget)	Learning and student-success outcomes
Quality of entering students	Quality of exiting students	Quality of collection	Quality of exiting students
Quantity and quality of resources	Quantity and quality of outcomes	Quantity and quality of resources	Quantity and quality of outcomes
Enrollment, revenue growth	Aggregate learning growth, efficiency	Collection, revenue growth	Aggregate learning growth, efficiency
Quality of faculty	Quality of students, learning	Quality of collection, services	Quality of students, learning

²⁴ Robert B. Barr and John Tagg, “From Teaching to Learning—A New Paradigm for Undergraduate Education,” *Change*, 27 (November/December 1995): 25.

Instruction Paradigm	Learning Paradigm	Information Provision Paradigm	Learning Library Paradigm
<i>Teaching/learning structures</i>		<i>Teaching/learning structures</i>	
Time held constant, learning varies	Learning held constant, time varies	Time spent in library is of secondary importance to classroom time	Learning in the library is primary, time varies
50 minute lecture, 3 unit course	Learning environments	One-shot bibliographic instruction, 1 unit course, reference desk	Learning environments
Classes start/end at the same time	Environment ready when student is	Tied to academic structure and calendar	“Just in time” vs. “just in case”
One teacher, one classroom	Whatever learning experience works	Just-in-case reference service	Whatever learning experience works
Independent disciplines, departments	Cross discipline/department collaboration	Information literacy often just part of someone’s job	All staff responsible for learning, teamwork
Covering material	Specified learning results	Library exercises	Specified learning results
<i>Learning theory</i>		<i>Learning theory</i>	
Knowledge exists “out there”	Knowledge exists in each person’s mind and is shaped by individual experience	Knowledge exists in primarily printed sources	Knowledge is discovered and constructed by learners interacting with information
Knowledge comes in “chunks” and “bits” delivered by instructors	Knowledge is constructed, created, and “gotten”	Knowledge comes in “chunks” and “bits” found in printed sources	Knowledge is constructed, created, and “gotten” by learners interacting with information and other learners
Learning is cumulative and linear	Learning is a nesting and interacting of frameworks	Learning is cumulative and linear	Learning is a nesting and interacting of frameworks
Fits the storehouse of knowledge metaphor	Fits learning how to ride a bicycle metaphor	Fits the storehouse of knowledge metaphor	Fits learning how to ride a bicycle metaphor
Learning is teacher centered and controlled	Learning is student centered and controlled	Learning is faculty centered and controlled	Learning is student centered and controlled
<i>Productivity/Funding</i>		<i>Productivity/Funding</i>	
Definition of productivity: cost per hour of instruction per student	Definition of productivity: cost per unit of learning per student	Definition of productivity: numbers of books catalogued and circulated, etc.	Definition of productivity: cost per unit of learning per student
Funding for hours of instruction	Funding for learning outcomes	Funding by percentage of G&E budget	Funding for learning outcomes

Instruction Paradigm	Learning Paradigm	Information Provision Paradigm	Learning Library Paradigm
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<i>Nature of roles</i>		<i>Nature of roles</i>	
Faculty are primarily lecturers	Faculty are primarily designers of learning methods and environments	Librarians are primarily gatekeepers	Faculty and librarians together design learning methods and environments
Faculty and students act independently and in isolation	Faculty and students work in teams with each other and other staff	Librarians teach as “guest lecturers” and on-demand at the reference desk	Librarians, students, and faculty work in teams with each other and other staff
Staff serve/support faculty and the process of instruction	All staff are educators who produce student learning and success	Staff serve/support faculty and the process of instruction	All staff are educators who produce student learning and success
Any expert can teach	Empowering learning is challenging and complex	Anyone can be a gatekeeper	Empowering learning is challenging and complex
Line governance, independent actors	Shared governance, teamwork	Hierarchy	Shared governance, teamwork

ATTACHMENT 3

The Information or the Learning Commons: Which Will We Have?²⁵

Scott Bennett
Yale University Librarian Emeritus
Senior Advisor, Council of Independent Colleges
scott@libraryspaceplanning.com
www.libraryspaceplanning.com

Who would today build or renovate an academic library without including an information commons? As Charles Forrest tells us, “in the last decade information commons have made a sudden, dramatic, and widespread appearance in academic and research libraries across the country and around the world.”²⁶ Indeed, the information commons has in many ways come to substitute for the card catalog as a principal means of defining space as library space.

At the same time, we have exhibited considerable uncertainty about what to call these spaces. The information commons and learning commons are by far the most common names, but the words *academic*, *collaboration*, *teaching*, *technology*, *media* often appear in names, along with or in the place of *information* and *learning*.²⁷ Curiously, the word *service* is not used even though librarians think of themselves as service professionals and the convenience of “one-stop” shopping for services is often proclaimed as a principal attraction of the commons.

So what have we actually been building? Donald Beagle provides a helpful way of distinguishing between the information and the learning commons. The former he defines as “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.” The purpose of the information commons is to support learning—a service mission. By contrast, Beagle defines the learning commons as what happens when the resources of the information commons are “organized in collaboration with learning initiatives sponsored by other academic units, or aligned with learning outcomes defined through a cooperative process.”²⁸ The learning commons, so defined, depends for its success not only on joint action by support/service units (such as the library and academic computing) but also on the involvement of academic units that establish learning goals for the institution. Properly understood, librarians and academic computing staff cannot alone create a learning commons, as they serve but do not define institutional mission. Other academic units do that and must join librarians and technologists in creating a learning commons. The fundamental difference between the information and the learning commons is that the former supports institutional mission while the latter enacts it.

²⁵ ©Scott Bennett, 2007. Readers of this paper and librarians may copy it without the copyright owner’s permission if the author and publisher are acknowledged in the copy and the copy is used for educational, not-for-profit purposes.

²⁶ Charles Forrest and Lisa Janicke Hinchliffe, “Beyond Classroom Construction and Design: Formulating a Vision for Learning Spaces in Libraries,” *Reference & User Services Quarterly*, 44:4 (Summer 2005): 296.

²⁷ Information from responses to a survey conducted by the author of libraries identified as having information commons; for more information see Scott Bennett, “Designing for Uncertainty: Three Approaches,” *Journal of Academic Librarianship*, 33:1 (Jan 2007): 165–179.

²⁸ Donald Robert Beagle, with Donald Russell Bailey and Barbara Tierney, *The Information Commons Handbook* (New York: Neal Schuman, 2006), p. xviii.

How does one move from supporting to enacting institutional mission, from the support of learning to learning itself? Good counsel is available from Jeanne Narum, Director of Project Kaleidoscope, who observes that “too often, planning for new spaces . . . begins with the wrong questions”—questions about what and how much will go in the space. Such questions usually yield answers relating to things (books and computers, for instance) and services (help with reference questions and the use of technology in the case of the information commons). Narum understands the importance of these questions but argues that “when they shape the initial stages of planning, the process is skewed. You will not end up with the building that you need, that your students deserve.” The right first questions focus instead “on student learning—*what actually is to happen* in the classroom and lab” and, one may add, in the learning commons.²⁹ The key, then, is to replace our typical first question about what should *be* in a space with the less typical question, what should *happen* in the space.

This is a profoundly important difference, as even a brief assessment of information and learning commons using Beagle’s definitions shows.

It is of course relatively easy to create the “network access points and associated IT tools” characteristic of the commons, but the needed “human resources” are somewhat harder to marshal. A survey of such facilities indicated they are staffed with librarians in 88% of cases and information technology staff in 71% of cases—suggesting a significant difference in access to these two kinds of information service providers. The available evidence about cross training and collaboration among service providers is not positive. Asked whether cross training among those with different professional backgrounds was necessary to the success of the commons, 82% of survey respondents answered “yes.” Yet library staff got such cross training in only 73% of the cases, compared to a modest 41% for information technology staff. This suggests a lopsided, though not a completely one-way collaboration. When asked what degree of collaboration between staff with different professional backgrounds was necessary to ensure the success of the commons, only 14% of survey respondents answered “full.” The remaining 86% reported success built on only “substantial” (55%), “moderate” (27%) or “minimal” (4%) collaboration.³⁰

Turning to collaboration with other academic units focused on learning outcomes, student success, and other issues of institutional mission—considerations critical to a learning commons—the picture is mixed. On the positive side is the fact that student tutoring and faculty development staff are included in commons in 59% and 25% of cases, respectively. But these staff appeared to be somewhat isolated within the commons, as they were involved in cross training in only 32% and 11% of cases, respectively.³¹ More telling is survey data from 122 of the library directors who attended the information literacy workshops sponsored in 2004 and 2005-06 by the Council of Independent Colleges and the National Institute for Technology & Liberal Education (NITLE).³² While an impressive 93% of these library directors described their institutions as encouraging a campus-wide climate of collaboration, that encouragement had limited impact on collaboration among curricula designers, faculty, librarians,

²⁹ Jeanne Narum, “Building Communities: Asking the Right Questions,” Project Kaleidoscope (2002), emphasis added. Available: <http://www.pkal.org/documents/BuildingCommunitiesAskingTheRightQuestions.cfm> (25 September 2007). Narum provides an excellent general review of sources on the design of learning spaces in “Transforming the Physical Environment for Learning,” *Change*, 36:5 (September/October 2004): 62-66. This issue of *Change* includes several other articles discussing aspects of current teaching and learning practices and their intersection with technology.

³⁰ All the data reported in this paragraph is from “Designing for Uncertainty,” pp. 167-168.

³¹ *Ibid.* I focus here only on librarians and information technology staff, although student tutoring and AV/media staff and other student services and faculty development staff also work in information commons in a varying but sometimes significant number of cases.

³² For an account of this survey data, see Scott Bennett, “Campus Cultures Fostering Information Literacy,” *portal: Libraries and the Academy*, 7:2 (Apr 2007): 147-167.

academic advisors, and computing staff—which the library directors reported as existing on only 59% of their campuses.³³ Collaboration among faculty, librarians, and other academic support staff has long been understood to be a key factor in successful information literacy programs³⁴ and is the distinguishing factor in Beagle’s definition of the learning commons.

These data suggest we have a long way to go if we mean to build learning commons, as Beagle defines them—if we mean to get beyond the support of learning that defines the information commons. How will we know we have succeeded in building learning commons? Beagle’s answer to this question lies with the deep involvement of *academic* units in their design and operation, units that do not simply support but enact the education mission of the college or university. Another, closely related answer springs from how we answer the first question of what we intend to happen in the learning commons. If we design the commons primarily with the intention that good service will happen there,³⁵ we will surely succeed in that goal. That we will get student learning as well is a too-easily made assumption that parallels the now discredited assumption that learning is the result of good lectures.³⁶ If, alternatively, we work with academic units and officers across the campus to design the commons primarily with the intention that learning will happen there, we are much more likely to see that magical moment when students, building on work begun in the classroom, take responsibility for and control over their own learning. This is the crucial event that makes the library and its learning commons “the last bulwarks of a culture of acculturation. They are places where you learn, and in learning, become part of a larger world.”³⁷

So what is in a name, after all? The difference between an information and a learning commons is one of aspiration. Being clear about this is much more than a semantic exercise. It involves, rather, focusing clearly on the right first questions in space design and committing resolutely to a collaborative effort to design space that is deeply responsive to institutional mission. These are hard things to do, but aiming at anything less will produce a commons that, while almost surely useful, will likely fall short of what our institutions need and our students deserve.

³³ This data was gathered before the workshops. The same two questions about collaboration were asked in a follow-up survey about a year after each workshop. At that time, the same responding library directors characterized their campuses as encouraging collaboration much less frequently (68%, down from 91%), while the frequency of collaboration among faculty, librarians, etc. remained unchanged at 59%. One might speculate that the dramatically lower figure for campus-wide collaboration reported a year after the workshops reflects the way the workshops sensitized participants to this issue and set a high standard for collaborative achievement.

³⁴ See, for instance, the excellent collection of essays edited by Dick Raspa and Dane Ward, *The Collaborative Imperative: Librarians and Faculty Working Together in the Information Universe* (Chicago: Association of College and Research Libraries, 2000). These authors’ initial essay, “Listening for Collaboration: Faculty and Librarians Working Together,” pp. 1-18, is especially worth reading. The professional literature on information literacy is voluminous; an excellent point of entry is the Web site maintained by the Association of College and Research Libraries, “ACRL Information Literacy.” Available: <http://www.ala.org/ala/acrl/acrlissues/acrlinfolit/informationliteracy.htm> (25 September 2007).

³⁵ As was the case, for instance, with both the Learning Commons in the Undergraduate Library at the University of Illinois at Urbana-Champaign and the Academic Commons at Oberlin College. The former is described as “implementing a new service model,” while at the latter a new central service desk is “a focal point for all services provided by the Commons” where “better coordinated information, research, technology, and learning support” will be available. See the Fall 2006 issue of *Friendscript*, the newsletter of the University of Illinois Library at Urbana-Champaign; and the Spring 2007 issue of *Library Perspectives, A Newsletter of the Oberlin College Library*.

³⁶ See for instance the widely cited article by Robert B. Barr and John Tagg, “From Teaching to Learning—A New Paradigm for Undergraduate Education,” *Change*, 27:6 (November/December 1995): 12-25.

³⁷ Aaron Betsky, “Dark Clouds of Knowledge [a description of the new University of Utrecht Library],” *Architecture*, 94:4 (Apr 2005): 52.

