Case Study: The Inch and the Mile

Luck, Opportunity, and Planning Innovative Learning Spaces

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The popularity of Barnes & Noble bookstores, the googlization of information-seeking behaviors, and patrons who simultaneously instant message, use cell phones, troll RSS feeds, and create new knowledge (whether traditional papers or PowerPoint and multimedia presentations) are now major factors energizing librarians and higher education administrators to reevaluate the role and importance of the university library. The cliché of the library as the heart of the institution has been questioned as information retrieval and knowledge-creation behaviors have been radically dispersed by technology; these activities can now happen anywhere, and anytime. In *Libraries Designed for Learning*, Bennett raises the question of:

two quite legitimate conceptions of the library as a place. One of these, which has a long and worthy tradition, conceives of libraries as service places where information is held, organized, and managed on behalf of those who use it, who are often also directly assisted in their use of information by library staff. The other, which springs from a recognition of the essential social dimension of knowledge and learning, conceives of libraries as spaces where learning is the primary activity and where the focus is on facilitating the social exchanges through which information is transformed into the knowledge of some person or group of persons.²

Given Bennett's view of the library as a learning place, preconceived, flexible planning based on students' learning needs is required if librarians are to achieve the redefined role as the heart of the campus.

An increasingly common model of learning-based environments is the learning commons. Whereas the entire campus should be a learning commons, in which the activities described by Bennett take place, the library can seize opportunities and be a proactive leader in facilitating this process.³ To be the forerunners in creating innovative, flexible learning spaces, library administrators need to take the lead in planning collaboratively with campus constituents. Are you ready?

The Inch

Most scholars agree that technology has been a catalyst for massive change in libraries. Geoffrey Freeman states that shift from the library primarily serving as a repository of the collective knowledge of a culture, often ancillary to the mission of universities, to an integral component of formal and informal learning and teaching experiences that are an extension of the classroom. He describes the library of the future as "a user-focused, service-rich environment that supports today's social and educational patterns of learning, teaching and research."4 However, technological change has outpaced society's ability to adapt to these changes, and planning therefore seems to become an anachronism how do we effectively plan when unpredictable change in technology drives future services? Freeman's answer is that "we must constantly explore and reinvent the concept of flexibility but do so in space of a quality that offers a distinctive, intellectually-rich environment for learning, teaching, and research."5 Thomas Frey's recommendations in "The Future of Libraries" include evaluating the library experience, embracing new technologies, and experimenting with creative spaces so the future role of the library can define itself.⁶ Therefore, designing services and facilities requires creative, dynamic, and flexible planning.

Technology has not only changed how students learn but where they learn; it has enabled students to retrieve information 24/7 from any location. In 2001, Scott Carlson predicted a decline in library use despite such efforts as adding coffee bars to entice students to enter libraries; he believed that more and more students would "enter libraries not through turnstiles but through phone lines and fiber-optic cables."7 Traditional quantifiable measures such as library circulation and reference transactions have borne out Carlson's prediction. ARL statistics from 1991 to 2003 show that average annual statistics are down-7 percent for total circulation, 29 percent for reference transactions, and 49 percent for in-house use of items.8 The implication of this drop in physical usage is that the library as a place would become ancillary to the university's mission unless it adapted its services.

While library administrators struggled with changing technology, access issues, and declining statistics, book-

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stores became more popular than ever. Why did so many people, including the typical college demographic group, flock to bookstores instead of the library? The answer may lie in asking who today's students are. Many of Tapscott's ten characteristics of the Net Generation-including fierce independence, emotional and intellectual openness, desire for greater social inclusion, innovation, curiosity, and expectation of immediacy-must be addressed if libraries are to deliver services effectively.9 Diane Oblinger characterizes the Net or Millennial Generation as eighteen- to twenty-four-year-olds who "gravitate toward group activity ... are fascinated with new technologies," view technology as "a natural part of the environment," are multi-taskers, want to stay connected, and have 24/7 expectations. 10 The traditional library role as a repository might offer little to these students, but perhaps—given that today's students are communal, multitasking, connected coffee drinkers-there might be a need for the library as a learning space. From a management perspective, the question becomes: Do you have a dynamic, flexible plan ready to implement and meet that need?

Longwood University Library

The Janet D. Greenwood Library staff at Longwood University in Farmville, Virginia, had a planned desire to offer services that anticipated and met students' learning, social, and information needs. From the research on library redesign and renovation, the need was evident, but the funding was lacking, with no hope in sight. When Longwood began requiring students to have laptops, there was even more cause to anticipate that students would not have to come to the library anymore. However, something as seemingly unrelated as the scheduling of new carpet for the library provided an opportunity to seize the moment and put forth the plan for rethinking and redesigning library spaces to meet twenty-first-century teaching and learning needs. Many other innovators, such as the University of Nevada-Las Vegas, Dartmouth College, and the University of North Carolina-Chapel Hill, had already built and documented the information commons. Our question became a management issue: given an inch, were we (and are you) ready to take the mile?

Longwood University is a state-supported comprehensive institution, offering four master's-level degrees with a largely liberal arts curriculum, including business and education professional programs. The campus is primarily residential, serving four thousand full-time equivalent students. The two-story Greenwood Library building was completed in 1991 and holds a collection of 325,000 volumes. Its computer resources were barely adequate to meet demand, if that. Although full-time students are required to purchase laptop computers, many part-time students do not have ready access to a computer. Prior to the redesign, the first-floor reference area contained primarily print reference and periodicals, with fifteen public PCs. The only



The Greenwood Library Information Center.

other public PCs in the library were three workstations scattered among the stacks on the second floor. A wired room on the second floor was vacant after temporary language lab equipment was removed in 2003.

In February 2004, several factors converged to provide an opportunity to draw upon prior planning and well-established networking relationships with academic computing and academic affairs to implement an information commons in the Greenwood Library. The "inch" was a relatively small enhancement—the provost decided to fund new carpeting for the library. In addition, an interim library director had a fresh vision and the university was planning to upgrade the wiring in the library. Beyond that, with a flexible plan in place, the librarians hoped to capitalize on university-sponsored improvements and to channel a significant amount of end-of-year funds into mounting an information commons project. However, without administrative ingenuity, creative planning, and strategic thinking on the part of library administration and staff, this could never have happened.

Change involves strategic planning, risk assessment, and money. The librarians planned and prepared staff for the risks they were undertaking, but apart from the wiring and new carpet, the information commons project started off with limited financial resources. Therefore, from the beginning the library director insisted that the project plan be laid out in small incremental steps that could be implemented over months, or even years, as new monies became available for computers, chairs, furniture, and so on. To emphasize their flexibility with this evolving situation, some librarians facetiously suggested the possibility of students sitting on the new carpet with their personal laptops plugged into ports if that was what it took to get started.

The Greenwood Library's plan was built upon existing strengths. Secure, well-developed interdepartmental relationships were critical. The only initial financial resources for the project were the limited funds remaining in the library budget. Working together, librarians and academic computing staff gave the library director a draft proposal seeking upper-level administrative support. The task was to sell the concept and convince the provost that an information commons needed to be developed in conjunction with the new carpet and rewiring, even if the necessary resources could not be found to complete the project immediately. The provost had previously expressed support for expanding technology in the library, but key to translating that verbal support into formal support was the library director's offer to channel all available end-of-year library funds into the project. The provost then agreed to support the project, with the understanding that it might have to be completed only as new money and resources became available.

Coordination with academic computing was key to the success of the venture. Academic computing contributed staff time at crucial points in the project, greatly enhancing efficiency and communication. An academic lab manager provided valuable technical input and joined librarians on quickly planned and executed visits to nearby libraries for tours of recently implemented information commons areas. Based on this collaboration, academic computing adjusted the library's wiring infrastructure plan to accommodate the information commons design. Although academic computing could not provide financial assistance, it offered consulting services, collaboration, and price breaks for services where possible. The needs of the students who would benefit from the information commons came first, not departmental territoriality. However, at this stage, the vision was still far from realization.

The Mile

Due to our preparation for "the inch," when we were offered "the mile," we were ready to seize it. Priorities were established, with contingencies for installing the most critical and affordable pieces first without losing the vision, while maintaining the ability to resume the project at any point as new resources became available. The library first attempted to find funding for forty-eight PCs, and proceeded to plan space and wiring based on that configuration. In early spring, the librarians took initial steps toward implementation by reducing the reference collection by one-third to make space for the PC commons on the first floor. Library funds would be diverted to cover wiring forty-eight new ports, and flexible planning made it possible to redirect library funds previously earmarked for other priorities to purchase computer tables for the commons PCs. These tables could also be used for laptops, if computer funding was not immediately available. At this time, the library had the original fifteen PCs, but still needed chairs and forty-eight new PCs.

Near the end of March 2004, twenty used computer tables donated by academic computing were placed in the vacant second floor lab, which was targeted as a potential

site for an auxiliary computing center. The library now had fifteen computers for the main information commons on the first floor, new carpet, sixty-three ports, and computer tables for two areas. If the project had to be suspended at this point due to financial constraints, thirty-eight of those ports would be accessible by laptop only, and students would continue to use old, straight-back wooden chairs, but in the context of flexible contingency-based planning, this was significant progress.

Preparedness created opportunities in other areas that reaped unexpected rewards. Two weeks later the provost contributed ten new PCs with standard monitors from his end-of-year administrative funds. The original information commons proposal called for flat screen monitors-a luxury that would enhance the success of the project but was not a necessity. With the last remaining money in the library budget, the library director found funding for the cost of ten flat screens to go with the new PCs, increasing the total public computers to twenty-five. With the project gaining momentum, academic computing and the provost agreed to use the final money left from a different budget line of state-provided technology funds to provide seven more PCs with flat screens. There were at that point forty-eight computer tables with PCs (fifteen without flat screens); the second floor lab had only laptop ports and tables, and none had new chairs.

Success encouraged the library to negotiate funding for the remaining PCs. In a meeting with the financial vicepresident at the end of April, the library director argued that more PCs were essential to the information commons project's success, and submitted a request for and received fifteen more PCs with flat screens from end-of-year funds, with the agreement that the library would cover the fortyeight chairs for the new information commons area out of next year's budget. The second floor computer lab would be equipped with the existing fifteen PCs and wooden chairs and standard monitors from the reference area. Because the second floor lab was unstaffed, the library added a proximity lock to its door. Thus, as a result, what started out as a carpeting project turned into a forty-eight workstation information commons on the first floor and a fifteen workstation computing lab on the second floor.

One final step remained—developing a staffing model for an environment in which patrons would both retrieve and create information. In the previous staffing configuration, a librarian and support staff person fielded reference questions; the more difficult questions were referred to the librarian, and the computer-related questions were handled in a somewhat hit-or-miss fashion by both staff members. The addition of more computing services would mean many more computer-related questions, and the old model would clearly be inadequate. It was deemed that an integrated service desk that received both research- and computer-related questions was the most appropriate model based on current best practices; as noted by Crockett et al., "the line dividing computer consulting and research assistance has

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gradually blurred, so that Leavey Information Commons users were puzzled by the need to categorize their questions into computer or research related queries—they simply did not perceive the two as separate." Therefore, based on research, the physical space of the information commons, and the student population and library staff size, the single service point was well-conceived.

Having decided on a single service point, the library needed staffing that supported traditional library and computer production functions. The physical closeness of these two staff members would make referrals seamless to the patron. Based on current research on peer-to-peer learning and anecdotal experience, it was clear that Longwood's students, who typically were the most technically savvy members on campus, could make the environment "welcoming and non-threatening' in that many students feel more comfortable seeking assistance from a peer." 12 Following several conversations, academic computing offered three of their student computing lab assistant positions which, added to the four to six student positions, could provide student consultant coverage for the busiest hours. This would free the two reference support staff, a well-trained information technician specialist and a reference support staff member who was already tech savvy, to conduct other critical functions. Academic computing trained the library's student consultants for basic hardware and software skills, and the library staff trained the students for basic library directional questions. Job descriptions for the student consultants were developed based on similar programs at Elon University and the College of William and Mary. After training, all staff members would be able to handle basic computing and directional questions, research questions would be referred to librarians, and more advanced technical questions would be handled by the other staff member or a student consultant. With this new staffing model and appropriate training, the library could now offer "learner support of all kinds for both technology skill acquisition and information research."13

Crossing the Finish Line

The Greenwood Library's Information Center opened prior to the fall 2004 semester. In early September, the library hosted a faculty wine and cheese reception in the Information Center area after the first Senate meeting, with opening comments from the new university librarian and the assistant vice-president of academic computing. This was just the first of the library's marketing initiatives. The library conducted a student announcement/survey asking respondents to rank the library's new services in exchange for a free gift (a fines waiver). Initial marketing efforts provided an opportunity to share the accomplishments and advertise new services to the campus community. These efforts were planned to set the foundation for continuous assessment of services.

Has the Information Center been a success? Current research and institutional experience demonstrate that academic library building improvements typically result in an increase in traditional output measures. Starkweather and Marks cite steady increases in circulation and use of electronic resources as indicators of the success of the wellpublicized Lied Library building project at the University of Nevada-Las Vegas. 14 Bennett's survey of library renovations between 1992 and 2001 "pointed to significantly increased student use of their libraries as one of the clearest and most gratifying marks of the success of their projects." 15 Shill and Tonner found that the great majority of academic libraries with building improvements between 1995 and 2002 "experienced sustained increases in usage of the physical facility," with a median 37.4 percent increase in exit gate count.16 Both Carleton College and Indiana University saw increases in gate count after opening an information commons. 17 The experience of the Greenwood Library offers similar traditional indicators of success: from fall 2003 to fall 2004, gate count statistics increased 32 percent; circulation increased 24 percent; reference questions increased 37 percent; and electronic resource usage, as measured by searches in databases with vendor-supplied statistics, increased more than 20 percent.

However, measuring success by gate counts and usage statistics does not necessarily indicate an increase in learning. The paradigm shift in higher education from a teaching culture to a culture of learning requires academic libraries to move from measuring "frequency of use" to measuring "learning that results from use" as an indicator of success. 18 This is not an easy task in informal learning spaces. MacWhinnie notes the lack of formal research and the difficulty of uniformly evaluating the variety of services in an information commons, but stresses that "regardless of how difficult assessment may be, it should not be overlooked."19 Keating and Gabb cite a similar lack of research and suggest that academic librarians need to understand peer-topeer, independent, and collaborative learning behaviors in order to create an environment that "actively promote[s] the types of learning that make students successful."20 Beatty and White developed an assessment model that benchmarks the information commons against six elements known to support student learning: face-to-face support, virtual instruction support, classrooms, formal instruction, group workrooms, and informal learning areas. They found that more integrated and collaborative learning space projects involving the library and academic computing or other partners scored higher on elements that support student learning and could, therefore, be expected to be more successful.21

Effective evaluation of the information/learning commons may lie in identifying and continually assessing the characteristics of flexible informal learning spaces that are positively related to student learning.²² The Greenwood Library's Information Center has most of the design and service features that support learning, including a variety

of learning spaces, peer student assistance, a coffee shop adjacent to the library, classrooms, and the presence of writing and tutoring services. A librarian has been assigned to develop and implement a comprehensive assessment plan for the library that will include a combination of quantitative and qualitative measures.

The first formal assessment of the Information Center was a survey of four hundred students at the end of the spring 2005 semester; 38 percent of respondents indicated they used the Information Center one to three times a week, 60 percent used the Information Center for class-related activities, 76 percent agreed that their information needs had been met, and 77 percent agreed that they were satisfied overall with the Information Center. When asked what they liked most about the Information Center, the top three responses were the computers, the reference staff, and the resources. The features they liked the least could also be considered indicators of success: it was too crowded, too noisy, and the hours of operation too short.

Testimonial evidence of the project's success included an editorial in the student newspaper titled "Praise for the Library" that noted the pleasing atmosphere, new computers, flat screens, plenty of workspace, and friendly service. The student writing ended with: "I am proud to say that our campus has a respectable library." ²³

Are You Ready to Run?

The Greenwood Library successfully completed this phase of the project. But its experience may have broader implications. The question you must ask yourself or your library is, if offered an inch-any inch-are you poised to run the mile? Implementing an information commons or other projects does not always require a major building redesign or a significant infusion of funding. It does, however, require preparedness, flexibility, and well-established networking with constituents across campus. The librarians at Longwood University took advantage of the campus's recarpeting and rewiring projects; hence, they were able to achieve the vision of the library as learning and teaching environment that included the Information Center and second-floor computing lab with full production workstations, writing and tutoring services, and appropriate staffing. Chance played a part, but the librarians converted that into opportunity.

Several factors contributed to the success of the "information commons in six months or less" venture: a strong vision of public service; knowledge of current trends for libraries; skillful budgeting, including creative combinations of the various funding sources; well-developed and synergistic partnering with academic computing and campus administrators; the vision and commitment to stay on track; and persistence when prospects were bleak. There were contingency plans at every turn, with an eye to achieving the full goal in stages, if not all at once.

Are you ready to run? The Greenwood Library's experience would suggest the following:

- Keep abreast of current trends in academic libraries and higher education.
- Develop and maintain strong relationships with areas that you may want to collaborate with in your institution, especially campus computing.
- Talk and brainstorm informally among yourselves and with faculty about how to improve service.
- Keep updated short- and long-term strategic plans.
- Have a wish project ready for windfall opportunities. You never know when one is around the corner.
- Be willing to regroup and reshuffle priorities to take advantage of opportunities.
- Advocate your vision.

This project was truly a collaborative, campuswide effort, designed to provide a centrally located, common intellectual space for students and faculty to interact and have full-service access to technology and expert research assistance. Through additional successful collaborative efforts, the librarians convinced Longwood's Academic Support Center to bring the Student Writing Center and tutoring services to the Greenwood Library, contributing to its transformation as a holistic teaching and learning environment. The Greenwood Library looks forward to planning a twenty-first-century academic library as defined by James Neal:

We can foresee a shifting vision of the academic library. We will be legacy, responsible for centuries of societal needs and records in all formats. We will be infrastructure, the essential combination of space, technology, systems, and expertise that define our excellence. We will be repository, guaranteeing the long-term availability and usability of our intellectual and cultural output. We will be portal, serving as a sophisticated and intelligent gateway to expanding interactive multimedia content and tools. And we will be enterprise, more concerned with innovation, business planning, competition, and risk. ²⁴

The momentum remains strong. Recent proposals have been approved to upgrade an existing classroom to a smart classroom and to add ten more PCs in the commons area for more group learning spaces. Now the librarians need to continue to question services and space, not asking how to integrate library resources with each other, but how to further integrate library services with the learning and research behaviors of users. Through this ongoing experience, the Greenwood Library has laid a managerial foundation for planning, continually watching for the inch—and prepared to take another mile. Are you ready?

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