Learning More About The Information Needs of MIT Students

How do MIT students find information? Do they search electronic databases available through the campus network? Do they use the MIT Libraries? Have their approaches to finding information changed with the availability of the Web? To answer these questions, in spring 1998 the first part of a multi-year effort to track and analyze changes in the information-seeking behavior of the MIT community was carried out. With generous assistance in market research methodology arranged by Patrick McGovern, Chairman of the MIT Libraries' Visiting Committee, and provided by IDG Research Services, a team of three librarians developed a questionnaire that was mailed to a sample of 1500 undergraduate students and 1500 graduate students toward the end of the 1998 spring semester. The survey inquired about techniques used to find information, whether and how the Libraries' electronic resources are used, whether and how the Libraries' facilities are used, and how the Libraries might be more helpful to students during their academic careers.

Information from the survey is still being tabulated, but the initial results show a greater than anticipated response rate of more than 40 percent. Some of the intriguing preliminary answers reveal a student population that has had little or no instruction in methods for finding information or using libraries, but that has substantial interest in receiving more assistance in both of these areas. Another survey finding contradicts the idea that use of library facilities and collections has declined with the growth in availability of electronic information through the

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Barton Now on The Web

Users of the MIT Libraries have been asking that we make our catalog, Barton, available for searching directly on the web. A web version of Barton is now here. If you want to test drive this tool, feel free to explore http://libraries.mit.edu/barton and let us know what you think. We'll tell you more about this web version of Barton in our next issue.
From The Director

Outstanding academic research libraries have a number of defining characteristics. Because their mission is to reflect the deep research interests of their faculty, and to support the teaching programs of an educational institution, their collections are typically extensive in size and scope and heavily used. Their resources will include an impressive number of unique and exceptional materials, and an amazing variety of media and formats.

The best research libraries are, like MIT's Libraries, long in the tooth, reflecting a century or more of committed attention by faculty and librarians. Over the decades, MIT's collections have grown into a splendid reflection of the outstanding research and teaching of the Institute. They have also grown out of their space.

From time to time, portions of the Libraries' physical plant were renewed and expanded to accommodate growth in the collections, evolution in publishing formats, and changes in teaching styles. Most recently, renovations in the Rotch Library and the Lewis Music Library have dramatically illustrated the possibilities of thoughtfully modernized space: collections can be accessed on campus, new information technology can be usefully (and gracefully) deployed, a variety of student study and work needs can be accommodated. Faculty support made these improvements possible, and faculty and students alike have benefited.

Just as an outdated, overcrowded laboratory becomes inefficient to maintain and difficult to use, so too are the MIT Libraries becoming a challenge to maintain and sometimes frustrating for students and faculty to use. Despite the systematic acquisition of digital alternatives, the collections continue to grow at a rate of 2% per year. A recent survey of the MIT Libraries' physical facilities revealed the following disconcerting facts:

* Seating accommodates only 13% of the student body, when standards target seating for at least 25%.
* Of 20 US research universities with comparable size student bodies, MIT ranks 8th in size of collections and 16th in allocated square feet.
* Square footage is 26% less than the minimum capacity recommended for an institution of our size.
* About 500,000 volumes of the MIT Libraries' collections are in storage, versus 233,000, on average, among our peers.
* Much on-campus shelving is at or near capacity.

Overcrowding is as problematic for MIT's Libraries as it is in MIT's other learning and living spaces, and in some cases compounds difficulties elsewhere on campus. For example, even as dorm rooms were becoming less conducive to study, the special role of the Libraries as a place for students to think and work was eroding. In many of our libraries, the quality and quantity of working spaces have yielded to inexorable pressure from collection growth and the demands of information technology. Despite these reluctant compromises, complaints of missing items have recently begun to rise as crowding in the stacks makes it difficult to shelve materials in their proper locations - and just as difficult to find the items one wants.

While we await a digital future, the physical collections of the MIT Libraries continue to grow. Faculty still write for print publishers, and students still find important ideas and definitive answers in books. The number of useful and relevant print publications produced per year continues to rise, as does the number of pages published in journals. The future is coming, of course, but not as quickly as we need or might like.

The MIT Libraries will continue to work within the Institute to explore permanent solutions to these difficult space problems. Responsible stewardship requires an interim strategy, however, and in the coming year, the MIT Libraries will begin to address overcrowding in our facilities. Starting with the most overcrowded collections, we will develop a process framework and decision guidelines. In this effort we will expect to work with concerned faculty, and we will, as always, benefit from the advice of the Faculty Committee on the Library System.

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Major Science Storage Move Planned

In the last issue of the MIT Libraries' News, I reported on the Libraries' serious space shortages. The Libraries have initiated a series of discussions related to finding a long-term solution to this problem. In the short-term, it will be necessary to significantly increase the rate at which we move collections to storage. To that end, we plan to implement the following strategy:

* increase moves of materials to storage to achieve equilibrium with the annual addition of volumes to the collections;

* move collections from our most crowded facilities on a three-year cycle, i.e. move three years' growth in the first year and every third year thereafter, according to the following schedule:

  1998/1999 - Science Library (25,000 - 30,000 volumes)
  1999/2000 - Humanities Library (20,000 volumes)
  2000/2001 - Barker Library (15,000 volumes)

Of all the MIT's divisional libraries, the Humanities and Science Libraries housed in Building 14 (Hayden) are the most crowded. Shelving in the building is approximately 87% full and is already beyond capacity according to library building standards. Shifting collections to accommodate new materials throughout the classification ranges has become so labor-intensive that staff often cannot keep up. Materials end up being "crammed into" their respective shelving sections, shelved horizontally in the space above vertical volumes, or even stacked on the floor. The conditions are detrimental to the materials and provide extremely difficult conditions for users who are trying to locate materials.

Barker Engineering Library is slightly less full (84%), but still beyond recommended standards. Dewey and Rotch Libraries are estimated to be 77% and 78% full, respectively, and therefore do not need the level of attention that Science, Humanities, and Barker do. Librarians in all locations will continue to regularly review materials for storage selections on an annual basis, but at a less intense pace than in those libraries which are targeted to do three-year reviews.

Science Library Project

During FY 1998/1999, library staff will review the Science collections to select 25,000 - 30,000 volumes to move to storage. This will create space for three years' collections growth. The review is currently underway, under the direction of Michael Noga, the Science Library's Collections Manager. Volumes which are selected to be moved to storage are flagged, and library users are encouraged to contact Michael (mnoga@mit.edu; 253-1290) if they believe any of the flagged volumes should not be moved.

Although judgment related to current relevancy is used in each case, the following guidelines provide a framework for the decisions:

Journals
* backruns of journals to which the Libraries no longer subscribe
* backruns older than 10 years for journals with low use
* foreign language materials
* early imprints, or rare or fragile materials

Books
* titles with little or no recent borrowing
* early volumes of proceedings
* selected textbooks
* early imprints, or rare or fragile materials
* selected duplicates

Storage Facilities

The MIT Libraries' principal storage facility, the RetroSpective Collection (RSC), is Building N57, near Central Square. In addition, the Libraries rent space in the Harvard Depository (HD) in Southboro, Mass. When materials are moved to either of these facilities, the records in the Libraries' online catalog are adjusted to reflect the new location. Library users may request stored items at any of the Libraries' reference desks, or directly through a webform on the Libraries' homepage http://libraries.mit.edu/rsc.

Requested items are delivered to whichever MIT library the user chooses. Delivery from the RSC is made within 24 hours on business days. Delivery from HD may take up to 48 hours. In addition, the RSC is open for on-site use, 9-5, Monday through Friday, though users are asked to make arrangements via telephone before arriving (253-7040).

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Do We Have Your E-mail Address?

If you provide the circulation staff with your e-mail address, an electronic courtesy notice will be sent to you three days before your items are due.
New Librarian Staff

Advancing technologies provide the Libraries with ample opportunities to improve services and processes. At the same time, they provide considerable challenge in the areas of product assessment, implementation, and staff development. In an effort to meet that challenge, the Libraries have created two new Information Technology positions, one each within the Libraries’ Public Services and Collection Services areas. The sole purpose of these positions is to provide greater impetus for technical initiatives. The Information Technology Librarians will serve as technology advisors to managers and staff within their respective areas. They will monitor technical developments and applications outside of the MIT Libraries and assess their potential for our use. They will develop, evaluate, and work with staff to implement innovative information technologies, and they will promote and contribute to staff development of technological skills.

Nina Davis-Millis took up her position as Information Technology Librarian/Public Services in December, 1997 (see the Spring/Summer 1998 issue for more information). Joan Kolias joined the staff as Information Technology Librarian/Collection Services in August, 1998. Ms. Kolias comes to MIT from the University of Illinois at Urbana-Champaign where she earned a Certificate of Advanced Studies - Library and Information Systems. Her other academic achievements include a Masters degree in Library Science and a B.F.A. in Painting and Art History from the University of Wisconsin, Milwaukee, and a B.A. in Art and English from Rivier College, Nashua, NH.

Prior to obtaining her most recent degree, she served in the Peace Corps as a Rural Development and Systems Librarian in Belize. She joined the Peace Corps from Indianapolis where she worked first as Assistant Director for Technical Services at the University of Indianapolis, and later, as Director of Library and Information Services at the Hudson Institute. Earlier in her career, she had served as Cataloging Librarian at Stockton State College in Pomona, NJ and as Head of Cataloging, Assistant Professor at Southeastern Massachusetts University, North Dartmouth, MA. Moreover, she is an accomplished trainer, has authored several WWW homepages, and is active in a variety of professional organizations.

The MIT Libraries are indeed fortunate that Ms. Kolias was eager to return to her native Massachusetts and share her many skills with us.

Carol Zoppel,
Editor

Learning More About The Information Needs of MIT Students (Cont.)

campus network. More than half of the undergraduates report that electronic resources have had no impact on their visits to the Libraries, and another 21 percent report that they come to the Libraries more frequently. For graduate students, 44 percent report "no impact", and 26 percent visit the Libraries more often.

The students who answered the survey identified a number of high priority changes the Libraries should make, including extending hours, providing electronic reserves, and offering a web-based Barton online library catalog. Work has already begun to respond to these needs. A vendor has been selected for electronic reserves and a pilot project is scheduled for next spring, reference hours have been extended in three of the divisional libraries (Dewey, Humanities, and Rotch), and a web version of Barton has been released this fall. In the meantime, the data from the survey will be studied further and used to determine strategic directions for the Libraries' student service programs. Follow-up focus groups will be formed, and a second study focusing on faculty or researchers' information needs will also be undertaken during this academic year.

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Libraries Assist Students in The System Design And Management (SDM) Program

During the Independent Activities Period last January, librarians from the Dewey Library, the Barker Engineering Library, and the Aeronautics and Astronautics Library, provided both virtual and hands-on research skills workshops for 70 students in the System Design and Management (SDM) program. The request for the workshops came from then Co-Director of the program, Professor Daniel Frey.

The SDM program, which leads to a Masters degree, is a creative blend of on-campus and distance learning which educates "engineers in architectural, technical and managerial issues that affect company performance" (1). Most of the students in the program spend one month on campus for intensive orientation to the program and to begin courses in project design and management. This is followed by a return to their companies where they continue their studies, supplemented by brief monthly visits to campus. Students also spend one semester in residence on the MIT campus, during which each writes a thesis. Because these students spend much of their time off-campus, it is essential that they be made aware of the resources the MIT Libraries can offer to students via the World Wide Web, wherever they are.

Rae Wiggins, then an Assistant Dewey Librarian, designed a web site for the class entitled Research Skills Workshop for System Design & Management Students. The site offers advice on finding articles in business and engineering journals and provides links not only to the databases themselves, but to tutorials on the use of each database. Also available are links to pages of advice on designing search strategies for those databases. The site also contains links to electronic information about companies and to the Libraries' online catalog as a source for books on relevant subjects. In addition, other services offered by the Libraries, such as obtaining books and journal articles not held by MIT, and asking questions of MIT reference librarians over the Internet, are explained and links provided.

Rae Wiggins, Cheryl Sirna of the Barker Engineering Library, and Eileen Dorschner of the Aeronautics and Astronautics Library, also presented a 90 minute workshop on the use of databases of journal articles in the fields of both management and engineering for all program participants. Following demonstrations of four of the most generally useful databases, students were able to begin their own research with the three librarians available as consultants. The librarians advised students of the best databases for their individual projects and helped them design search strategies.

The Libraries' work with the SDM program continues this semester with librarians participating in the program's orientation for students returning to campus for their semester in residence. At the orientation, general information about the Libraries' services was presented, and the team of four librarians who are working with the program were introduced. The librarian members of the team, Diana Magnoni and Diane d'Almeida of the Dewey Library, Cheryl Sirna of the Barker Engineering Library, and Eileen Dorschner of the Aeronautics and Astronautics Library, have updated the virtual workshop web site at: http://libraries.mit.edu/ barker/sdm
and have conducted instruction sessions for the program participants.


Eileen Dorschner,
Aeronautics and Astronautics Librarian
MITnet Drops Available in The Libraries

This fall the MIT Libraries introduced network drops for those who wish to bring their own computers into our facilities to do research. Computers must have an ethernet connector and be registered for Dynamic Host Configuration Protocol (DHCP) service in order to use network services provided by these drops. Bring your laptop to the Libraries and do your electronic and paper research at the same time!

You will find five connections at study carrels in the basement stacks of the Science and Humanities Libraries (Building 14) near the Athena cluster there. Another five connections are available in the reading room of the Dewey Library (Building E53). Seven connections are available in the Rotch Library (Building 7). Four are in the Rotch reading room, one in its reference area, and one each at a conference table and in a large study carrel on the first floor of the Rotch stacks.

Don’t forget, in order to make use of these MITnet connections, you must register your portable computer for DHCP service. For more information refer to URL:

http://libraries.mit.edu/news/mitnet

In a recent survey of undergraduate and graduate students, the Libraries learned that half the responding students thought they would make use of MITnet connections for their laptops if they were available in the Libraries. These 17 MITnet drops test this proposition; if they prove popular, the Libraries expect to add more in the spring.

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Librarian Participates in Research Program

Ms. Lin’s research project explored the evolving concept of information competencies for engineers, focusing particularly on what constitutes the core competencies for the innovative engineer of the 21st century. Competency, as defined by her research, refers to the general capability to apply knowledge to practice. It represents an active thinking process rather than a stock of knowledge. It is a strength, a problem solving ability and a generative potential, as opposed to a bundle of skills. This re-identification greatly broadens the scope of information competencies, adding cross-country and cross-disciplinary dimensions to the concept. As a result, the core competencies Ms. Lin proposes include the ability to:

* acquire and interpret information;  
* manage information;  
* communicate information;  
* apply information to specific tasks and to be innovative;  
* apply the above competencies in cross-country and cross-disciplinary contexts.

Ms. Lin says she treasured this opportunity to grow. Her great thanks go to the ARL and the LCDP faculty for their hard work developing the program, to the MIT Libraries for their support in terms of time and budget, and to her colleagues who covered her reference desk hours while she was at the institutes.

Carol Zoppel, 
Editor
Library Development Update

I am pleased to report that we have been making steady progress building our development program for the MIT Libraries. This past spring we sent out our third annual mailing which garnered a very good response rate, bringing in a total of $6,110. Every year our response rate and total giving have increased, and we are excited to be expanding our constituency. At the same time, we continue to work with the Development field staff to meet our donors and friends across the country and to understand better their interest in the MIT Libraries.

Additionally, we have been successful raising funds for special library initiatives. For example, over the past three years, support from an individual donor and a private family foundation has provided funding for special projects in the Rotch Visual Collection (RVC). This private support enabled the RVC to make significant strides in developing and providing access to visual electronic resources for the School of Architecture and Planning, as well as the broader MIT community. Over the years, the RVC has pioneered advancements in the educational use of images, both analog and digital, for both instruction and research. Today it continues to explore the capabilities offered by the latest technologies to create web-based, interactive and sophisticated image collection resources supportive of the demands and changing needs of its clientele. This exciting, expanding system offers the potential to radically alter the way faculty teach, the way students learn, and the way MIT shares resources with a global community. Continued philanthropic support for these endeavors is a critical component to future progress.

As I have mentioned in past columns, endowed funds for the purchase of library materials and support for renovation projects remain our greatest needs. A recent study by the Associate Director for Collection Services revealed that, over the past decade, endowed book funds for the Libraries have grown at a rate that has significantly increased our purchasing power during a time of dramatic increases in the cost of published materials. An endowed fund, started with $10,000, is a wonderful naming opportunity at MIT. Special bookplates and donor pages on electronic resources recognize all purchases made through a specific fund.

I look forward to keeping you updated on our plans and successes in upcoming newsletter issues. For further information about giving to the MIT Libraries, please contact me at (617) 253-0255 or by e-mail at rmi@mit.edu.

Anne Marie Michel, Associate Director, Foundation Relations & School Development Services

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