

## Director, Libraries

In describing the state of the MIT Libraries in the 21st century, we sometimes humorously characterize our situation as having “one foot on the dock, and one foot in the dinghy.” Considerable time, energy, and resources are dedicated to maintaining the traditional library environment (the “dock”) on which the MIT community still remains heavily and documentably reliant for research and education. At the same time, however, a significant and growing amount of our effort must now be dedicated to trying to anticipate and influence the complex emerging digital environment (the “dinghy”) that will inevitably shape academic research library collections and services in the future.

Any sailor knows that having one foot on the dock, and the other in a dinghy, can be an uneasy balancing act, and that the connections between the dock and the dinghy must be carefully attended to as people and materiel are transferred from one place to the other. It’s important that the dinghy not depart prematurely—for obvious reasons, but it’s also important to separate crisply when the time is right. And, of course, even with the best seamanship, should the weather turn bad, or a chop develop in the water, the situation can get downright uncomfortable.

AY2004 was not a particularly comfortable year for the MIT Libraries. As we juggled the demands of these two different, but interconnected, library models, we confronted some rough budgetary weather and a fair amount of inflationary and operational “chop”. The academic year was characterized by rising costs for information resources; a growing awareness of the sustainability challenges of a highly distributed physical footprint; reductions in our budget (with notice of more to come); and concern for undergraduate and graduate student productivity—as another 65,000 volumes of educational and research resources were shipped to off-campus facilities for want of adequate on-campus space.

It is a profound tribute to the professionalism and dedication of the Libraries’ staff that the Libraries responded to these challenges with teamwork, intelligence, and poise. The Libraries developed new metrics to insure that scarce resources were devoted to services and information content that would benefit the MIT community the most. They looked for operational efficiencies and deferrable activities—in an operation that was already exceptionally productive. They renewed their focus on understanding the current and future needs of MIT students and faculty and how best to meet those needs. They devised an explicit communication strategy so that the changes we were obliged to make to live within our budget were fully explained to the MIT community in advance of their implementation.

Equally noteworthy in AY2004 was the ongoing commitment of the Libraries’ staff to shaping the future of academic research libraries. At a time when the unpleasant task of “doing less with less” was all around us, the Libraries nevertheless pursued their

mission with enthusiasm and forward-looking goals. The staff of the MIT Libraries are exceptional in their ability to appreciate and pursue the unique opportunities that are provided through their high-quality relationships with faculty, students, and staff of the Institute. They have a remarkable ability to think creatively, act entrepreneurially, and focus on what is best for MIT, even in lean times.

For example, during AY2004, Public Services staff focused on the challenge of rethinking and redesigning information services for the MIT community in the digital age. Significant progress was made to advance this goal. Other staff attended to the stewardship of MIT's rich and unusual collection assets, with notable results. Three Committee for the Review of Space Planning (CRSP) projects and a few modest, internally funded space improvement projects addressed several long-standing facilities problems and improved working/studying conditions for students and faculty. The technical infrastructure that delivers the Libraries' network-based information products and services to the MIT community was capably attended to and priorities were established for the introduction of new products and services. Critically important research interests were identified, collaborators were secured, and funding was obtained.

The MIT Libraries continue to be an essential component of MIT's outstanding research and education mission. The combination of deep, rich traditional collections, unique archives, DSpace information resources, and carefully selected licensed digital resources (accessible via innovative interfaces, and supported by exceptionally responsive and creative services), provides MIT with Libraries that are worthy of this world-class institution. Reflecting the Libraries' importance to the Institute is the strength of interest exhibited by the Faculty Committee on the Library System (FCLS). Their work, which is documented separately in the annual report of the chair, engaged key issues of importance to the future of academic research libraries, including facilities design, methods of scholarly communication, copyright in research publications, and journal pricing.

The MIT community was once again gratifyingly responsive to every outreach effort made by the Libraries. For example, the Libraries' instructional program has now grown by more than 160% over the past five years. In addition, the use of both online and physical facilities grew in AY2004, despite the fact that financial and staffing constraints obliged the Libraries to emphasize outreach activities that could be accomplished largely through information technology and partnerships. In AY2004, the Libraries welcomed successful collaborations with the MIT Careers Office, as well as with faculty and staff charged with implementing the Communication Requirement. With the help of Academic Computing, a data/geographic information systems (GIS) workstation was installed in Dewey Library, and a sadly outdated Athena cluster in Building 14 was redesigned to meet the needs of today's students.

Research collaborations with individual faculty, laboratories, programs, and departments were key elements in the Libraries' progress toward 21st-century solutions. In AY2004, the Semantic Interoperability of Metadata and Information in Unlike Environments (SIMILE) project brought together the MIT Libraries, the MIT Computer Science and Artificial Intelligence Laboratory (CSAIL), the World Wide Web Consortium (W3C), and HP Labs to introduce semantic web technology into the real-world domain of library metadata and DSpace. The Cambridge-MIT Institute (CMI) funded the DSpace@Cambridge initiative, which will contribute to the DSpace system in the areas of preservation and educational technology. CMI also funded LEADIRS, a workshop series developed to support technology transfer through the deployment of institutional repositories in UK universities. MIT iCampus funded a project to investigate the standards and protocols necessary for the long-term archiving of educational material produced under the OpenCourseWare (OCW) initiative. The OCW project itself became a key client of the Libraries' new Metadata Services unit.

The limitations of the Libraries' physical spaces continue to present operational challenges to the Libraries' staff, as well as barriers to students and faculty in their use of the Libraries facilities and services. Students are deeply appreciative of any efforts to upgrade the work and study spaces in the Libraries, and vote with their feet when facilities improvements are introduced. Increases in occupancy—often dramatic—have occurred whenever student workspaces and access to collections have been improved. Most recently, in AY2004, the development of decent student study space in Barker Engineering Library produced a 30% increase in visits to that facility, despite the fact that journals, handbooks, and databases are increasingly available on the network. More than ever, we look forward to the day when students and faculty have a new science and engineering library designed to support their work in the 21st century, and the Humanities Library can become a facility that better reflects the important role of the humanities and arts at MIT.

As in every year, the Libraries can point to the strength of its staff as the source of its accomplishments. Recruiting and retaining an outstanding staff will always be a central priority of the Libraries. Essential to this goal are competitive salaries, adequate career development opportunities, and a supportive organizational structure. The Libraries are grateful to MIT's administration, Corporation, and Human Resources personnel for their understanding and support of this priority. So although we said farewell to several key staff, including Jim Mullins (associate director for administration) and MJ Miller (director of development) as their careers advanced beyond MIT, we have enjoyed strong candidate pools for every vacancy. We are most fortunate to be able to fill our positions with exceptional individuals, including the new assistant director for administration, Keith Glavash.

The reports of the individual directorates that follow this overview detail the exceptional accomplishments of the MIT Libraries in AY2004. These reports provide a fuller flavor of the intellectual and professional contributions the MIT Libraries make to MIT's dynamic mission. It is my personal privilege to be a part of such a vibrant, relevant organization, and to work with the many individuals, both inside and outside the Libraries, whose energy, commitment, and support have made possible the accomplishments of academic year 2004.

**Ann J. Wolpert**  
**Director of Libraries**

*More information about the MIT Libraries can be found online at <http://libraries.mit.edu/>.*

## **Public Services**

The year began with the Libraries' adoption of a new mission statement:

The mission of the MIT Libraries is to create and sustain an intuitive, trusted information environment that enables learning and the advancement of knowledge at MIT. We are committed to developing strategies and systems that promote discovery and facilitate worldwide scholarly communication.

Public Services embraced this mission by continuing its efforts to improve library services and facilities to support the research, teaching, and learning endeavors of faculty, students, and staff. We have a vision that promises our community easy access to high-quality information and expertise; increased awareness and availability of services and self-help tools; and a safe, comfortable, and friendly working environment. Advancing this vision requires talented staff, organizational commitment, hard work, and the willingness to experiment. We are fortunate to possess these necessary ingredients for success.

Last year's report spoke of "evolving the service model," as the expanding digital service environment and ever-increasing interdisciplinary research and teaching agenda strain the traditional, decentralized library service model of the present. While our physical infrastructure still constrains our progress, we have been aggressive in both short- and long-term efforts to adjust to an increasingly dynamic information and library service environment. We have continued our focus on outreach and improving the information-seeking productivity of faculty, students, and staff. We remain steadfast in our commitment to high-quality services now and in the future despite momentary budget difficulties.

### **Focus on Service**

Public Service efforts continued to focus on advancing the Reference Vision adopted in 2002. Based on a broad definition of reference that "connects people to the information

and skills they need, and builds awareness of services that support research and learning,” the vision has three seemingly simple goals:

- Simplify access to library materials, services, and staff expertise.
- Foster flexibility and experimentation for library services and staff.
- Successfully market services, internally and externally.

It also sets forth Program 2007, which establishes goals for the levels of help to be made available:

- Self-help: available all hours.
- Virtual help: available from 10 am to 10 pm.
- Help desk: available during all open library hours.
- Proactive research help and instruction: available at various times.

Our progress during the past two years, while significant, has highlighted the difficulty of implementing change in a decentralized environment where resources are lean and traditional values remain high. Benefiting from our past experiences and the insights of outside consultants, we created a project management group, Team Delta, to develop a realistic implementation plan and timeline to better monitor progress and challenges. During an intense two-month period, Team Delta solicited input from staff across the Libraries in formulating its plan. The Implementation Plan for a New Service Model itemizes the steps and strategies necessary to move to a tiered information service model including one service desk in each library, a sustainable virtual service desk, and a robust referral system. The new model proposed is based on the concept of “just-in-time” rather than “just-in-case.” Staff time away from the desk can be better focused on tasks and projects that will improve user self-sufficiency as well as meeting in-depth needs for specialized expertise. The plan also makes recommendations for developing comprehensive instruction and marketing plans across the MIT Libraries, for continuing to improve user self-sufficiency, and for reviewing jobs and organization structures to insure proper alignment with goals. The plan was adopted by Public Services in June 2004, and Team Delta will continue to coordinate activity and monitor progress.

Efforts over the past year to sustain and improve services were numerous:

- The Your Account feature in Barton was rolled out with enormous success, providing users with the ability to view items they’ve checked out, place books on hold, renew books, and request items from storage.

- The new virtual and phone Central Help Service was put into place. The Assessment subgroup of the Reference Committee reviewed the service in the spring, recommending changes in staffing that will go into effect this fall.
- The Reference Committee developed a series of training modules for Public Service staff to improve customer service.
- The Processing Committee created an extensive web site to document all the local staff procedures involved in acquiring and making accessible information resources.
- The Circulation Committee reviewed fines policy, resulting in recommendations to raise fines effective July 1 to better enable the availability of materials for all users.
- The Libraries home page was redesigned in June. Based on the results of usability testing and other feedback, the new home page provides more help for new users getting started, provides more flexibility for special announcements, includes more features for accessibility to specific sections, and is compliant with XHTML standards.
- Barker Library established an integrated service point to advance the vision of a single service desk.
- The Humanities and Science libraries created a variety of groups to improve the user experience in Hayden Library. These include the Hayden Reference Group, the Hayden Facilities Group, and the Hayden Stacks Group.
- The Engineering and Science Libraries (ESL) reorganized to improve service structure. This included the development of a Lindgren Library team; integrating Schering-Plough services, staff, and collections into the Science Library; and the creation of an ESL Collections Coordinating Group.
- Rotch Library developed a creative staffing plan that allowed for increasing its staffing for desktop technology support from one half-time employee to one full-time employee.
- With support from the Systems and Technology Services Department, the Rotch Visual Collections was able to successfully install the IRIS cataloging database to support the cataloging of visual images.
- Working with the Libraries' GIS specialist and Information Services and Technology's (IS&T) spatial data specialist, Dewey Library installed its first data/GIS workstation.
- The Humanities Library responded to user-survey feedback indicating a lack of awareness regarding leisure reading in the MIT Libraries by bringing books and CDs on book trucks to Lobby 10 and the Stata Student Street. Due to the success of this initiative, they quickly launched an audio-book collection that has been in high demand.
- A journal use study was implemented during the fall in anticipation of reductions in serial publication subscriptions in the coming fiscal year. This was a large, collaborative effort across all library departments.

- The Undergraduate User Group worked with the institutional research section of the Office of the Provost to develop library satisfaction and behavior questions for the senior survey.
- We continued ongoing partnerships with IS&T in support of geographical information services and electronic course reserves.
- The ILLiad system was implemented by Document Services to improve management of interlibrary loan requests.
- Document Services began scanning all new MIT theses, effective with February 2004 degrees, providing easier access to these publications for the MIT community.

In addition, the Libraries adopted Guidelines for the Use of the MIT Libraries, a publicly posted document that outlines expected norms of behavior in the MIT Libraries. Developed in response to a growing concern for the safety and welfare of both library users and staff, the guidelines provide a clear understanding of the rights and responsibilities of all those who benefit from the use of the MIT Libraries.

This past year also saw us devoting an extraordinary amount of time and effort planning for mandated budget cuts for fiscal year 2005. Efforts were focused on four primary areas:

- Integrating Schering-Plough Library into the Science Library. The impending move of the Brain and Cognitive Sciences Department to its new building in 2005, the decision not to provide space for Schering-Plough Library in the new facility, and the increasing reliance of faculty and students on e-journals contributed to the decision to close in June 2004.
- Rising costs associated with acquiring materials on demand for students and faculty when items are not owned by the MIT Libraries led to a review of our policies for interlibrary borrowing. The decision was made to discontinue support for the purchasing of dissertations on demand.
- Operating hours were reviewed in order to administer a 10 percent cutback.
- Subscriptions to journals and other serials were reevaluated in order to adjust to shortfalls in funding for FY05.

### **Facilities Improvements**

Major attention was devoted to developing a vision and preliminary program for a proposed new engineering and science library. Recommended by the FCLS, endorsed by the Faculty Policy Committee, and urged by the MIT Libraries Visiting Committee, the proposed new library responds to critical needs and presents a plan for a combined engineering and science library that will be transformative, evolving, sustainable, and preeminent. It suggests an array of open shelving and on-site high-density storage that would provide immediate access to a much higher proportion of our rich collections, a wide variety of user seating and learning facilities, and the necessary infrastructure to

support the innovative teaching, research, and learning in which MIT will engage throughout the next century. The report of the Working Group on a New Engineering and Science Library was created by soliciting broad input from staff within the current Engineering and Science Libraries, from experts elsewhere in the Libraries, from the Department of Facilities, from IS&T, and from other comparable offices. Moving ahead with this proposal will allow us to break the unfortunate cycle of having a higher and higher percentage of our collections housed off campus. It will foster improved support for the increasing interdisciplinary activity at the Institute, and will allow us to free up space in Hayden Library needed for moving forward with improvements to the Humanities Library. The plan for a new Dewey Library within the proposed new East Campus complex, detailed in last year's report, is still on hold pending funding.

While the success of our long-term space-planning efforts will be vital for our future, we continue to advance smaller, more immediate improvements in our facilities. While modest in nature they make a real difference for the students, faculty, and staff using our spaces:

- Barker Library converted its former photocopy and media services area on the 5th floor into two new group study rooms and a spacious, informal group meeting area.
- Barker Library renovated its circulation desk to incorporate its reference desk into an integrated service point. Along with modest improvements to the Barker entrance, this has made for a more welcoming and friendly environment for users.
- Dewey Library improved the utility of its basement collections by creating a comfortable work area for researchers and staff. Walls were painted, carpeting installed, lighting improved, tables and chairs purchased, and wireless access provided.
- The Humanities Library was awarded funding from the CRSP to install a few ranges of compact shelving and renovate the media viewing area on the 2nd floor of Hayden Library. Initial work began in the summer of 2004, with completion expected by January 2005.
- The Humanities Library improved its popular Browsery by purchasing soft seating and an attractive rug, and reconfiguring the space to provide a welcoming area for relaxation and discovery.
- Hayden Library collaborated with IS&T to upgrade the Athena cluster located in the basement. The improvements included partitioned space, a new group study area, soft seating, new flooring, and some painting.
- Rotch Visual Collections (RVC) underwent a partial renovation during the summer of 2003, creating a better-defined user area, improved staff workspaces, and a librarian's office. While the RVC space is still extremely constrained, these changes have made for needed improvements.



## Outreach

Reaching out to the user community is central to Public Services' mission. We are organized at every level to facilitate interaction with faculty, students, and staff. While our divisional and branch library structure has had a long history of focusing on local community needs, our committees and user groups have allowed us to develop new strategies for connecting with communities that do not neatly fit into MIT's traditional school and departmental structure. The combination of these two approaches is effective and has created a powerful infrastructure for community interaction that promotes the awareness of services and resources as well as a better understanding of the benefits provided by the MIT Libraries. Some of our spaces also provide attractive and welcoming opportunities to foster community by exhibiting art, showcasing performance, or simply providing a venue for social interaction.

Notable activities this past year kicked off with a successful fall orientation that began in late August and continued through mid-September with MIT Libraries Week. The theme "ideas take flight" was adopted to celebrate the 100th anniversary of the Wright Brothers' first flight. Activities included the academic expo, freshman explorations, walking tours of the MIT Libraries, new graduate student social under the Barker Library Dome, international graduate student orientation, new faculty orientation, posters and displays in Lobby 7 and the Student Center, and photos with Tim the Beaver. The Orientation Planning Group, with collaboration from the Faculty, Graduate, and Undergraduate user groups as well as other staff throughout the Libraries, planned and implemented the programs. A new Research Users Group was also established in the fall to develop improved strategies for connecting postgraduate students and other researchers with library services and resources.

Instructional activities were strong throughout the year. While overall activity was down slightly from the year before (see Table 3), teaching librarians continued to sustain a strong program that has grown an incredible 161 percent over the past five years. The Instruction Committee continued to serve as an important forum for exploring and advancing innovative ideas. A significant development was the successful collaboration with the MIT Careers Office to assist students seeking company and industry information as they pursue job opportunities. An important component of the program is training the Career Services staff in the resources available so that they can offer better assistance to students in need of help. A second key initiative has been outreach to the MIT faculty and staff involved with the Communication Requirement. This requirement provides a natural avenue to meet the 1998 Task Force on Student Life and Learning's charge to the Libraries to:

... become more engaged with the teaching activities of the Institute... [and put more emphasis] on the need for students to acquire lifelong skills in locating, filtering, evaluating, and using effectively the wealth of information available to them.

With the creation of the Institute's Task Force on the Undergraduate Educational Commons this past winter, and its charge to review the current General Institute Requirements, we have a rich opportunity to develop more formal mechanisms to

insure that students are adequately prepared in the lifelong information skills necessary for success.

An exciting development this spring was the opening of the Information Intersection on the Stata Student Street. Designed as a point of outreach for the MIT Libraries in the Ray and Maria Stata Center, it provides an attractive, high-visibility space for the Libraries to promote its services and resources. It is a collaborative space to further educational, research, and community goals, and provides quick network access to MIT community members when on the Student Street. A library bookdrop will be added soon.

The Reference Committee focused on promoting our Ask Us! service that provides timely answers to many questions and quick linkages to expert staff as well as useful self-help tools. The Committee developed a series of slide shows presented in the Infinite Corridor as well as on public library workstations. In addition, it designed an Ask Us! book bag that both promotes the service and provides users with a carry bag when checking out books.

The Lewis Music Library hosted two major events during the spring. The first featured composer Libby Larsen, one of three living composers whose work the Library has chosen to collect comprehensively through a cooperative agreement with the Boston Library Consortium. The second was the second annual Prokopoff Violin Concert. Nine MIT students performed pieces from 2,600 pieces of violin music donated by Lois Craig in 2001. Both events were well attended. Rotch Library continued its successful series of art exhibits, featuring 10 different shows this past year. The Humanities Library continued its collaboration with the MIT Press on the authors@mit series.

### **Service Trends**

The reliance by faculty, students, and staff on library services and resources remains strong, with significant growth in some areas and anticipated declines in others due to improvements that enable user self-sufficiency. This year, new methodologies for collecting service statistics across all library service units were implemented to insure consistency and reliability of data.

### ***Circulation***

Circulation activity remains strong (Table 1). Circulation transactions include initial check-outs, renewals, and hold/recall requests. Comparisons between 2003 and 2004 are misleading due to the fact that we were unable to include non-Barton activity in 2003. While a small portion of the overall 25 percent increase in growth between 2003 and 2004 (6 percent) is accounted for by this difference, the majority of the increase (16 percent) is due to the success of Your Account, launched in June 2002, which allows users to renew and place holds on items without staff assistance. The remaining growth (3 percent) demonstrates increasing use of physical media, primarily books and CDs.

**Table 1. Circulation Activity**

<b>Library</b>	<b>2003<sup>a</sup></b>	<b>2004</b>	<b>% Change FY2003/2004</b>
Aero	9,355	6,185	(34)
Barker	61,869	43,316	(30)
Dewey	69,107	58,538	(15)
Hayden	142,544	121,457	(15)
Lewis Music	27,389	37,608	37
Lindgren	8,581	6,972	(19)
Rotch	57,471	47,928	(17)
Rotch Visual Col.	233	16,521	6,990
RSC	5,188	6,060	17
Schering-Plough	3,727	3,943	1
Your Account	3,170	137,780	4,246
<b>Total</b>	<b>388,634</b>	<b>486,308</b>	<b>25</b>

<sup>a</sup> 2003 figures do not include non-Barton (i.e., "manual") circulation transactions

### ***Occupancy***

Use of Library facilities continues to grow (Table 2). Visits to Barker jumped 32 percent despite the fact that many of its primary journals are available online. This reflects the improvements in study space at Barker, the creation of lounge space, and two new group study rooms. After a 19 percent increase in visits to Hayden (Humanities and Science libraries) last year, this year's growth slowed to a modest 2 percent. Also worth noting is the continued popularity of the Lewis Music Library. While figures from 2003 were unavailable, this year's number of over 50,000 visits demonstrates the continuing attractiveness of this facility, which was completely renovated in 1996.

**Table 2. Library Occupancy**

<b>Library</b>	<b>2003</b>	<b>2004</b>	<b>% Change FY2003/2004</b>
Aero	27,917	27,463	(2)
Barker	92,910	122,251	32
Dewey	166,215	145,848	(12)
Hayden	350,675	357,301	2
Institute Archives	N/A	2,391	N/A
Lewis Music	N/A	50,512	N/A
Lindgren	20,355	21,009	3
Rotch	118,706	120,170	1
Rotch Visual Col.	N/A	N/A	N/A
RSC	N/A	229	N/A
Schering-Plough	21,607	20,958	(3)
<b>Total</b>	<b>798,385</b>	<b>868,132</b>	<b>9</b>

***Instruction***

Library instructional activity remains healthy, with over 300 sessions offered and attendance well over 6,000 (Table 3). Part of this year's drop-off was due to a vacancy in our GIS program during the first half of the year. Though this represents a modest decline from the previous year, it is important to note that the instructional program has grown 161 percent over the past five years. Sustaining this growth without staff growth is a notable accomplishment.

**Table 3. Instructional Activity**

	<b>2003</b>	<b>2004</b>	<b>% Change FY2003/2004</b>
Instructional sessions	307	313	2
Instructional attendance	6,570	6,178	(6)

## **Reference**

Reference and other staff-mediated help requests remain in high demand. While true comparisons with the previous year are not possible due to the implementation of a new methodology for the collection of statistics, the number of requests demonstrates the frequent demand for help and a significant demand for extended help (Tables 4 and 5).

**Table 4. Help Requests (Reference and Other), 2004**

Reference questions at public service desks	30,620
Other help questions at public service desks	20,749
Reference questions away from public service desks	12,952
<b>Total</b>	<b>64,312</b>

**Table 5. Reference Questions Away From Public Service Desk and Follow-up Requests, 2004**

	<5 minutes	5–20 minutes	>20 minutes	Total
In person	1,729	1,030	709	3,468
Phone	1,025	892	160	2,077
Email	3,403	2,861	1,035	7,299
Follow-ups	1,258	649	358	2,265
<b>Total</b>	<b>7,415</b>	<b>5,432</b>	<b>2,262</b>	<b>15,109</b>

## **Use of E-Resources and Services**

The growth in demand for e-resources and services continues. Tables 6 and 7 show the number of visits to the Libraries web site and Vera during the past two years by unique hosts per month. While these numbers are not comprehensive (e.g., hits on Vera only capture visits to the Vera home page and do not include visits to resources that users have bookmarked), this measure is indicative of the overall increase in use.

**Table 6. Unique Hosts Served by MIT Libraries Website**

<b>Month</b>	<b>2003</b>	<b>2004</b>	<b>% Change FY2003/2004</b>
July	64,748	81,927	27
August	66,753	83,173	25
September	88,001	103,684	18
October	97,028	112,797	16
November	100,554	122,784	22
December	78,552	103,213	31
January	91,059	111,557	23
February	97,377	114,353	17
March	113,032	123,433	9
April	105,163	98,561	(6)
May	98,205	93,358	(5)
June	84,539	83,661	(1)

**Table 7. Unique Hosts Served by Vera Homepage**

<b>Month</b>	<b>2003</b>	<b>2004</b>	<b>% Change FY2003/2004</b>
July	33,374	41,066	23
August	29,905	36,226	21
September	34,453	43,697	27
October	43,058	51,709	20
November	38,850	47,226	22
December	30,904	37,504	21
January	37,048	43,398	17
February	36,010	46,267	28
March	43,373	44,170	2
April	47,339	43,487	(8)
May	42,969	39,041	(9)
June	39,525	36,011	(9)

### **Interlibrary Borrowing**

Finally, Interlibrary Borrowing (ILB) requests increased 3 percent to a total of 14,564 (Table 8). Once again more than 10 percent of materials were actually found at MIT, demonstrating the continuing need to focus on user education regarding the use of Barton, Vera, and other discovery tools for collections available locally to MIT users. While the increase in requests unable to be filled is dramatic, it is a small number overall and ILB's fill rate remained extraordinarily high at 97 percent. The 10 percent increase in original material continues a trend that has remained steady over the past five years. This may indicate an ongoing lack of sufficient funding for monographs for our collections program.

**Table 8. Interlibrary Borrowing Requests**

	2003	2004	% Change FY2003/2004
Photocopies requested	8,709	8,596	(1)
Originals requested	3,626	4,009	11
Found at MIT	1,571	1,576	0
Unfilled	203	383	87
<b>Total</b>	<b>14,109</b>	<b>14,564</b>	<b>3</b>

### **Recognizing Staff**

The accomplishments of the past year were only possible due to the extraordinary talents and dedication of staff across the MIT Libraries. Staff at all levels—professional, administrative, and support—take enormous pride in their work, and collaborate effectively cross-organizationally to provide excellent service to the MIT community. Particularly worthy of recognition within Public Services are the recipients of the Libraries' Infinite Mile Awards this past May:

- Peter Cohn was recognized in the category of communication and collaboration for his participation in the Libraries' Public Services Management Group, Instruction Committee, and Reference Committee, along with his effective collaborations with faculty, students, and staff served by the Rotch Library. Peter is a wonderful model for others in his dedication and willingness to participate.
- Joe Hankins was recognized in the category of community for his tireless work on behalf of the Lindgren Library community and the positive relationships he has fostered with staff at all levels during a time of significant transition in staffing at Lindgren. Faculty and staff in the Department of Earth and Planetary Sciences praise Joe for the difference he makes in their lives.
- Craig Thomas was recognized in the category of innovation and creativity for his design of the database (a refinement of a project he first developed locally for Barker Library) used to support the journal use study that was implemented last

fall across the MIT Libraries. His commitment to excellent service, attention to detail, great communication skills, and enthusiasm were essential elements contributing to the success of the project.

- Margaret Bloom, Jennifer Fauxsmith, Amanda Martin, Denise O'Malley, Elke Piontek-Ma, and Amanda Powers—the Dewey-Humanities Processing Team—were recognized in the category of communication and collaboration for their ongoing effectiveness in managing myriad projects and their meritorious efficiency in performing processing functions in support of both the Dewey and Humanities libraries. Their teamwork thrives due to their commitment to open and honest communication, and their willingness to accept responsibility for providing self-management and collaborative leadership.

We continued to be successful in recruiting new staff. Important hires this past year were:

- Jennifer Berman-MacMillan, Dewey-Humanities Processing Team
- Melody Carver, circulation assistant, Dewey Library
- Lacy Crews, circulation assistant, Rotch Library
- Millicent Gaskell, associate head, Dewey Library
- Anna Gold, head, Engineering and Science Libraries
- John Hume, circulation supervisor, Barker Library
- Denise O'Malley, circulation assistant, Humanities Library
- Ophelia Richter, assistant, Aga Khan visual archives, Rotch Visual Collections
- Justin Scherma, circulation assistant, Rotch Library
- Carol Schweigert, circulation assistant, Dewey Library
- Andrew Shea, circulation assistant, Barker Library
- Lisa Sweeney, head, GIS Services
- Johanna Woll, Islamic images specialist, Rotch Visual Collections

## **Conclusion**

While our successes this past year have been significant, we must recognize and respond to the challenges that lay ahead:

- Recruiting and retaining the best possible staff and providing them with the training and support necessary to meet the community's demand for high-level subject and technical expertise.
- Improving our organizational model to increase support for expanding digital services.
- Marketing our resources and services effectively so that faculty, students, and staff can become more productive in their research, teaching, and learning.
- Sustaining our advances in instruction and developing a better infrastructure for providing undergraduate students with lifelong skills in locating, filtering, evaluating, and using effectively the wealth of information available to them, as articulated by the Task Force on Student Life and Learning.



- Securing new and improved facilities to insure that more and more of our rich collections are not forced off-site, and that our study and learning facilities are adequate to the needs of faculty and students.

This list is not meant to be exhaustive, but highlights the challenges and opportunities that lie ahead. I am confident that the Public Services staff will work together with the rest of the MIT Libraries' staff and with faculty, students, and staff across the Institute to meet these challenges and take advantage of these opportunities in support of MIT's mission to advance knowledge and educate students.

**Steve Gass**

**Associate Director for Public Services**

## **Collection Services**

### **Acquiring Information Resources**

#### ***Funding***

The Institute's fiscal situation was a primary factor in collections activities this year. The Libraries received an 8 percent inflation adjustment to the serials budget for FY2004 (as we had for the past five years), but no new funding for digital information resources or to support new education or research programs at the Institute. In addition, the Institute's fiscal realities prevented the renewal of a five-year agreement for library materials funding, and signaled caution in anticipation of the FY05 budget. For the first time in five years, the Libraries' collections efforts were "without a net", and a more conservative approach to budget management was required.

Several actions resulted from this. First, in the summer months of 2003, we cancelled 82 journal titles in order to rebalance our serials budget due to an inflation rate for FY03 that was slightly over 8 percent.

Second, when three-year contracts with two large commercial journal publishers, Elsevier Science and Wiley InterScience expired, staff decided to move to one-year contracts instead of renewing for three years. The three-year contracts carried "guaranteed spend" clauses, i.e., the Libraries would not have been able to reduce spending levels with the publishers for three years, and would have had to pay annually cumulating inflation increments as well. Given the fiscal uncertainties, the Libraries' administration decided not to commit to the longer-term contracts, which would have required that any spending reductions be realized by canceling subscriptions to journals from other publishers. There was agreement that the Libraries should maintain a position from which librarians can select materials based on their usefulness to the education and research programs of the Institute, regardless of publishing body. The FCLS supported this stance, even though the move to one-year contracts meant that the

Libraries paid more for content purchased (in the case of Elsevier) or purchased less content (in the case of Wiley).

Third, when the Libraries administration learned in February that our FY05 budget increment would not be sufficient to cover anticipated inflation for our journal subscriptions and digital products, librarians spent the final months of the year planning for reducing expenditures in FY05. Since Elsevier Science represents approximately 27 percent of the serials expenditures, the difficult decision was made to move to a subscription basis that would enable staff to select and deselect titles from this publisher at will. To do this, significant reductions are required in order to overcome the disincentives for reducing spending levels built into Elsevier's pricing models. Again, the FCLS supported this decision. Several communications efforts were undertaken to build understanding among faculty and administrators: discussions in the Deans' Council, a letter from the director of Libraries to department heads, an article by the director of Libraries and the chair of the FCLS in the May issue of the MIT Faculty Newsletter, an FAQ on the Libraries' website, and individual outreach to faculty departments by librarians with liaison responsibilities. By the end of the year, expenditure reductions of approximately 15 percent were planned for the FY05 subscription year. In some cases, subscriptions will be canceled outright; in others, subscriptions for print will be canceled but subscriptions for electronic versions will be maintained.

In addition to the reductions in the Elsevier list, librarians planned for 1 percent reductions from all other journal publishers and reviewed subscriptions to online databases. The review of databases resulted in planned expenditure reductions of approximately \$60,000. Some of these will be realized from cancellation of products, others from reductions in the numbers of allowed simultaneous users, or changes in platforms or search interfaces.

### ***New Acquisitions***

In spite of the fiscal difficulties, some new digital resources were acquired through the use of existing funds. Highlights of these purchases were the Cambridge Structural Database System, JSTOR Music Collection, Materials Research Society Online Proceedings, Project Euclid, SpecInfo, and SPIE Digital Library. In addition, we were able to continue most serial subscriptions and to purchase books at the usual level of approximately 20,000 new titles. Four major gifts of published materials, primarily monographs, were received from Professor Noam A. Chomsky and Edward J. Margulies, and the estates of professors Kenneth Hale and Franco Modigliani.

Acquisition of administrative archives and manuscript collections was at 150 percent the usual rate, resulting in a net addition of nearly 900 cubic feet. In particular, the move of Institute departments into the Stata Center resulted in transfers of papers from CSAIL, the Linguistics Department, and the Laboratory for Information and Decision Systems (LIDS). New manuscript collection accessions included the papers of professors Hermann Haus, Arthur von Hippel, Jay Forrester, David Epstein, Charles Kindleberger, and Fernando Corbato, and President Julius Stratton.

## **Caring for Collections and Enhancing Their Usability**

### ***Cooperative Efforts***

While continuing to acquire new information sources in multiple formats, the Libraries' staff members work diligently to fulfill our stewardship responsibility for the important collections already in our care, and to provide tools for their use. Several special projects and concentrated efforts focused on these goals. It is noteworthy that almost all of these efforts were broadly cooperative, involving several departments from Collections Services or elsewhere in the Libraries or the Institute.

### ***Archives Storage Center***

The staff of the Institute Archives and Special Collections, Preservation Services, Bibliographic Access Services, and Administrative Services were all involved in processes related to a new storage center for archival materials. In addition to many space-planning meetings, significant effort was devoted to preparing materials for transfer. The rare book collection was fully inventoried, un-cataloged books were cataloged, and many volumes were given stabilization treatments. In addition, the MIT Corporation records and many small manuscript collections were reorganized. By the end of FY2004, the condition of these collections, and the records relating to them, were significantly improved, and the staff were ready for the move that will take place early in FY05.

### ***Records Management***

The Process Improvement Project for the Records Management Program was fully realized this year. The management of Institute records in the care of the Institute Archives has been regularized. Records of lasting value have been transferred to the Archives' permanent collections. Records of temporary value have been transferred to Iron Mountain or, if their retention period has expired, destroyed. Important new contacts have been made with offices throughout the Institute, and Archives is in a much better position to continue to coordinate records management for MIT. The efforts of the staff to significantly transform records management processes were recognized by an MIT Libraries Infinite Mile Award in May.

The Archives staff participated throughout the year in the Financial Data Retention Project, led by the Institute auditor. The review of final retention schedules is nearing completion, and implementation processes are being planned. Several important Institute-wide information issues emerged during the work of the project, particularly those related to preservation and maintenance of electronic records. Through their work on the project, the Archives staff have become better positioned to provide expertise and guidance on these issues in the future.

### *National Endowment for the Humanities Proposal*

A group of staff from Collection Management Services, the Institute Archives, and Bibliographic Access Services completed a proposal to the National Endowment for the Humanities (NEH) for the July 15, 2004 submission deadline. Funding was requested to improve access to and conserve the papers and books of William Barton Rogers, MIT's first president. Proposed activities include encoded archival description markup of the finding aid, rare book cataloging, and conservation for the papers and selected books. Three scholars provided letters of support, citing the need for new research on Rogers, who has often been overlooked, despite his importance in 19th century science and technology, and his conception of science-based technical education. The NEH will announce the awards in March 2005, and if funded, the project will begin in April 2005.

### *Digitization Projects Infrastructure*

The Digitization Projects Infrastructure Working Group (staff from Collection Services, Systems and Technology Services, and Document Services) presented a report to the Steering Committee in June. This was the culmination of a yearlong analysis of software products that could be employed to manage and present digitized content from our collections. The focus was on two products: Online Computer Library Center's (OCLC) Content DM and Greenstone, an open source product. This project brought the members of the working group (and to some extent other library staff members) along a path of understanding all of the aspects and costs of a digitization program. It provided a sound comparison of the two systems, including start-up costs and the costs of a specific proposed project: digitization, metadata creation, and presentation of MIT's presidents' reports. Issues raised in review of the report included the nature and scope of a digitization program in the Libraries and the relationship of such a program to DSpace.

### *Non-text Survey*

The survey data related to non-text collections throughout the Libraries that was gathered in FY03 was expanded by the addition of data on approximately 70 collections in the Institute Archives. In addition, the data was entered into a FileMaker database, making it possible to generate reports based on various data, such as bibliographic control, physical condition, or priority. The database will be made available on the Libraries' server for use by local units. In addition, Divisional Librarians Group/ Technical Services and Collections (DLG/TSAC) will designate top priorities for cataloging and conservation emerging from this project. A first effort to expand preservation activities beyond paper-based materials was undertaken this year when fifteen tapes from the Edgerton Collection in Archives were sent to a vendor for reformatting on compact discs.

### *Expanding the Scope of Vera*

NERD (the Libraries' electronic resources selection group) led a process resulting in a decision to load into Vera (the Libraries' electronic resources website) vendor-supplied records for the contents of several "aggregator packages" of e-resources. Providing good

access to the content of these large, volatile packages has long been a challenge. Loading approximately 14,000 records from Serial Solutions provided direct title-by-title access, dramatically increasing visibility and use of these products. In addition, NERD initiated the loading of e-journal records for approximately 1,000 titles from the Directory of Open Access Journals. The result is that the direct title access to e-journals through Vera has expanded from approximately 4,800 titles to 19,500 titles.

### **Systems and Measurement: More Cooperative Projects**

#### ***Verde***

The digital acquisitions librarian, along with a colleague from Harvard, worked throughout the year with Ex Libris, our library systems vendor, on the development of specifications and data modeling for an electronic resource management system. In her participation in this project, she utilized expertise gained a few years ago when MIT Libraries designed an in-house system (Vera). By the spring of 2004, this informal relationship became a formal co-development agreement for the Ex Libris product Verde, with a projected release date of January 2005. Our intense involvement in the development process should ensure that the product provides a second, improved management tool for e-resources for the MIT Libraries.

#### ***e-Metrics***

Two efforts were undertaken to continue the work toward our goal of improved statistical analysis of digital resources, their costs, and their use. First, during the summer of 2003, digital acquisitions staff gathered vendor usage data for our 50 most expensive digital resources (e-journal packages and databases). Statistics were aggregated into an Excel spreadsheet and became a key factor in making expenditure reduction decisions this year. Second, a group of Collection Services staff and Systems Technology Services staff worked on a system for gathering data for all logons from the Vera system to any digital products the Libraries provide. This system was “turned on” July 1, but will be fine-tuned in the next couple of months. While it will not provide data on all uses (e.g., bookmarks or direct access to providers’ sites), it is comprehensive and consistent in measuring use through Vera for all products.

#### ***Print Metrics***

A comprehensive cross-library print journal use study was undertaken for the entire fall term. This was coordinated by the head of Collection Management Services, with database development and general assistance for all by the Barker local technology expert. It was the most comprehensive journal use study ever undertaken in the library system. While short in time frame, it provides useful snapshot data and was referred to in the expenditure reduction decisions undertaken in the spring.

## **Continued Excellence and Special Efforts within Work Units**

In addition to participating in these many and varied cooperative efforts, each of the individual work units within Collection Services continued its important work, often making special efforts to respond to the changing environment or to special needs.

### ***Monograph Acquisitions***

Staff implemented electronic data interchange (edi) ordering with the following vendors: Harrassowitz, Blackwell's, Casalini, Touzot, and Erasmus. "Early adopters" in four libraries began using Yankee Book Peddler's (YBP) GOBI electronic selection features. Orders for 42 monographic series titles were transferred to the YBP approval plan (an extension of similar transfers in the previous year). Policies and procedures for reimbursement for individual purchase of library collection materials were documented and distributed. For gifts to the Libraries, the donor information form was revised to accommodate a donor signature agreeing to terms and conditions, and to provide the Treasurer's Office with tracking information.

### ***Serials Acquisitions***

In the fall of 2003, staff successfully loaded EDI invoices from our largest periodical vendor, Swets Blackwell. To assist collections and processing staff wishing to view payment history, the serials acquisitions librarian created a BrioQuery report that pulls data from the MIT Data Warehouse. Serials Acquisitions took over responsibility for Vera data loads in spring of 2004. An e-journal team has evolved to prioritize, allocate, and track e-journals-related acquisitions work in Vera and the commitments database. Several vendor transitions this year mandated review of subscriptions and updating of records. Selection decisions resulting from the Depository Government Documents Items Review Project have been recorded for all libraries except Dewey. The review has resulted in a reduction in the selection rate from approximately 55 percent to approximately 46 percent.

### ***Serials Cataloging***

The closing of the Schering-Plough Library in June 2004 impacted several Collection Services units, most significantly Serials Cataloging, causing a domino effect. The transfer of the Schering-Plough collection to the Science Library, the transfer of many Science volumes to the RetroSpective Collection (RSC) to make room for the Schering-Plough volumes, and the subsequent transfer of many RSC volumes to the Harvard Depository all required changes in cataloging records for serials. Staff members continued to spend some of their work time in the RSC, updating holdings on serial records and cataloging serials in the Dewey Decimal Collection.

Responsibility for maintenance of the SFX Knowledge Base after last year's implementation process has been a significant "expansion in mission" for Serials Cataloging. Procedures have been refined and documented. The acting head of Serials Cataloging also is the primary contact for resolving user or staff questions. The head of

Serials and Acquisitions Services worked with Lincoln Laboratory staff this year to provide a meaningful Lincoln-specific SFX menu and a way to link to Lincoln's unique resources.

### ***Monograph Cataloging***

Staff from Bibliographic Access Services took part in a special project to eliminate the backlog that had resulted from migration to Aleph two years ago. They were successful in bringing the number of books awaiting cataloging down to a level that represents a normal work supply. Their efforts were recognized when they received a Libraries' Infinite Mile Award in May. The year was also marked by the reduction of backlogs in many formats to low levels: maps, video, Chinese literature, and original cataloging. Special projects in music cataloging included recordings of MIT music groups, including historic 78 rpm recordings and recordings of 12 Tech Shows staged between 1949 and 1963.

A second area of significant progress was the loading of many records that had been on hold pending the implementation of Patch 5 in the Aleph system. This included authority records (over 88,000), records for Kluwer electronic journals, records for the contents of the Brown Women Writers Project, BNA Tables of Contents records, and records for federal depository documents.

The Metadata Unit had a successful first year, creating metadata for 700 OCW objects, as well as carrying out special projects for the Singapore-MIT Alliance and Wesleyan University. A draft business plan was completed by the end of the year and is ready for review by the Libraries administration and the assistant controller.

### ***Preservation Services***

The Wunsch Conservation Laboratory realized its first full year of operation, fully staffed and fully equipped. Treatments for books, maps, and architectural drawings were carried out. Monthly lunchtime educational sessions were provided for staff from throughout the Libraries, and several tours and presentations were provided for outside visitors and alumni. The space renovation of FY03 has continued to generate interest from outside the Libraries and the head of Preservation Services was invited to publish an article and made two conference presentations on the topic of ergonomics in conservation work.

### ***RetroSpective Collection***

Space constraints mandate the continual move of volumes from the Libraries' collections to storage in the RSC (the Libraries' storage facility in N57) or in rented space in the Harvard Depository. This year nearly 65,000 volumes were sent to the depository. RSC staff managed the transfers, as well as the recalls, effectively and efficiently. They strive to make these stored collections as accessible as possible. The supervisor of the RSC worked with the Processing Committee to update the storage guide for local processing. Staff continued to manage the scanning of title pages for the Dewey Decimal Collection

for cataloging by OCLC. In addition, this year, they concentrated efforts on bar-coding high-circulation journal titles.

### ***Institute Archives and Special Collections***

Working under a new head of the Institute Archives and Special Collections, the staff accomplished a great deal this year. In addition to participating in many of the special projects noted above, streamlined accessioning procedures were implemented and significant progress was made on clearing the accessions backlog. A task force of staff from Archives and from Bibliographic Access Services is working on an analysis of importing the Archives' collection-level MARC records from the RLIN database into Barton.

The Archives' collections were used by individuals from all segments of the MIT community, as well as researchers from many other academic institutions. Monographs published this year using sources from the collections include:

— *The Harvard-MIT Division of Health Science and Technology: The First 25 Years 1970–1995* by Walter Abelmann

— *Making Time: Lillian Moller Gilbreth, a Life Beyond "Cheaper by the Dozen"* by Jane Lancaster

— *Three Mile Island: A Nuclear Crisis in Historical Perspective* by Samuel J. Walker

— *Jerry Wiesner — Scientist, Statesman, Humanist: Memories and Memoirs* edited by Walter Rosenblith

The Object of the Month exhibits continued, displayed in the hallway outside of the Archives and replicated on the Archives website. The exhibits were featured in an events section of *TechTalk*.

Numerous presentations were made by the staff throughout the year. They participated in Edgerton 101, a celebration of Harold E. "Doc" Edgerton's life, in conjunction with the Edgerton Center and the MIT Museum. The Archives continued to have a featured section in the Libraries Bibliotech newsletter.

### **Organizational Structure**

#### ***A New Department: Cataloging and Metadata Services***

The most dramatic organizational change in Collection Services this year resulted from the retirement of the head of Bibliographic Access Services in June 2003. During the summer and fall months, the associate director for Collection Services met with all of the librarians and several support staff members in Bibliographic Access Services and in Serials and Acquisitions Services, gathering input on several possible organizational



structures. The outcome of these meetings was a decision to create a new department, Cataloging and Metadata Services, merging the previous Bibliographic Access Services and the Serials Cataloging Unit of Serials and Acquisitions Services. The intent is that this new structure will provide better synergies in an era when cataloging work is dramatically changing, and when creating, “insourcing”, and maintaining catalog records for electronic information resources creates challenges that are common across monographs and serials.

A search for a head of this new department was initiated in January. A search committee chaired by the associate director for Collection Services screened and managed candidate interviews, checked references, and made an appointment recommendation to the Steering Committee. In June, the announcement was made that Rebecca Lubas would become head of Cataloging and Metadata Services, effective July 1, 2004. Also as a result of this restructuring, the Serials and Acquisitions units took the new name of Acquisitions and Licensing Services (ALS), reflecting another significant “expansion in mission” over the last several years.

### **Summary**

It has sometimes been said that the transition to digital collections and services would erode traditional organizational boundaries within libraries. The increasing levels of Collection Services’ leadership and participation in cooperative library planning and program implementation may be a manifestation of this prediction. At the same time, the staff continue to be highly effective in their ongoing tasks within their own work units, often imagining and implementing new ways of working in response to the changing environment. Collections Services staff live and thrive in challenging times.

**Carol Fleishauer**

Associate Director for Collection Services

### **Administrative Services**

The activities grouped under Administrative Services provide much of the basic infrastructure for the MIT Libraries, facilitating their effective operation within the Institute. Ultimately, the goal of Administrative Services is to provide a financial, human resource, facilities, and operations environment that allows the Libraries to focus their primary attention on the core mission of supporting teaching and research at MIT. As with all effective organizations at MIT, such a support infrastructure is essential if the Libraries are to succeed in providing library services befitting the MIT standard of excellence.

With the departure of James Mullins to head the libraries at Purdue University, the MIT Libraries appointed Keith Glavash, formerly the head of document services, to replace him as assistant director for administration. In announcing the appointment, director of Libraries Ann Wolpert noted that “after reviewing the qualifications, attributes and

expectations we hold for the individual who will lead this critically important directorate of the Libraries going forward, it became clear that we had an eminently qualified individual within our own ranks.” Glavash has been a member of the MIT Libraries staff since 1980.

In response to the retirement of the staff administrator, responsibilities within Administrative Services were realigned along functional lines already established among other staff in the department. While all the planned changes are not yet in place, there is already clear evidence that they will increase efficiency and lower costs for the Libraries.

### **Budget**

FY2004 was the first of two years in which the Institute’s restricted financial environment required a reduction in operating costs from the prior year. To address the need for lower spending levels, the Libraries closed a branch library and restricted the operations budgets of each department. In addition, vacant staff positions were held open for a period of time before being advertised, and central spending on capital equipment and travel was reduced substantially. Fortunately, these measures combined to accomplish the necessary reductions for FY2004, and further reductions have been enacted for FY05. Although there have been indications that FY06 will begin to see a reversal of this restricted environment, the Libraries will continue to exercise caution.

### **Facilities and Operations**

FY2004 was a busy and productive year for the Facilities and Operations section. With generous support from the CRSP, the Libraries continued to make progress toward addressing some long-overdue building and user-space issues.

### ***Committee for the Review of Space Planning—FY2004 Projects***

- A new Archives Storage Center (ASC) includes several interconnected rooms specially outfitted to store archival materials under strictly secure and environmentally stable conditions. This modern facility represents a vast improvement over the space formerly devoted to the same storage. Furthermore, it will allow the return to campus of some materials currently stored off-site at the Harvard Depository, thereby providing better access as well as reducing MIT’s off-site storage costs. For the first time, the Libraries will be able to combine proper storage with convenient accessibility for some of its most valuable artifacts.
- The second CRSP-funded project was the creation of a restroom in the Hayden Library that complies with the Americans with Disabilities Act (ADA). Hayden Library was built in the early 1950s, long before the ADA came into effect, and as such its restroom facilities are not compliant with the ADA. The new restroom, which is located within the 24-hour study area on the first floor, addresses the needs of handicapped patrons as well as providing a safe restroom for all library users after normal business hours. In the past, patrons requiring access to an

ADA-compliant restroom have had to travel to another building to find appropriate facilities. Other upgrades to Hayden that were included in the restroom project provided for automatic door openers at both the east end of the building (McDermott Court) and at the Science/Humanities entrance door.

- The Libraries' Information Intersection in the Stata Center Student Street has not yet become fully functional due to contractor delays in the correction of interior appointments. Along with many other Stata occupants, the Libraries hope that the contractor will complete the work in time for the start of the fall semester.



*Information Intersection in the Stata Center*

### ***Committee for the Review of Space Planning—FY05 Projects***

CRSP has approved two projects for the Libraries in FY05, one to return more materials to campus from off-site storage and another to bring together two groups of closely related staff currently dispersed across several locations.

### ***Minor Construction Initiatives in FY2004***

While projects on the CRSP agenda were moving along, the Libraries also directed internal funds toward several relatively minor space projects. All of these were meant to help address the strong and growing need to provide library users with group study and casual meeting spaces. Identifying areas in some of our facilities that no longer served a useful purpose, the Libraries were able to transform them at relatively low expense into modern, usable spaces that help to meet the needs of our students and faculty.

- **Barker Engineering Library:** An area on the fifth floor of Barker that had evolved through several uses over the past two decades was gutted completely and renovated with paint, carpet, improved lighting and electrical service, and network connections. The renovated area allowed the creation of three distinct rooms using landscape partition furniture: two are for group study, with a large table, eight chairs and a white board; the third was outfitted with comfortable seating, floor lamps, plants, side tables and a large coffee table. The user response to these changes has been very positive, and they are the most sought-after spaces in the Barker Library.



*New Barker Library study space*

- Dewey Library for Management and Social Sciences: A long-underused area in the basement of Dewey was transformed into a large group study area. Improvements include new carpet, paint, lighting, and additional power for laptop use. Here again, the user response has been very positive.
- Rotch Visual Collections: This small branch library is home to the slide and photograph collections used primarily by the departments of Architecture and Urban Studies and Planning. Last remodeled in the 1970s, it was in serious need of improvements to make it more functional both for users and staff. The results of the relatively minor alterations, fresh paint, and reorganization of the storage cabinets have been a much-improved workflow and greater usability of the available space. Feedback has been excellent, especially from the faculty members who are the primary users.

## **Human Resources**

### ***Recruitment***

The Libraries filled nine administrative staff positions after serious searches during FY2004. Of these nine positions, only two were strictly librarian appointments—the head librarian positions for which the searches were concluded at the end of last fiscal year. The "specialist" positions filled in FY2004 included metadata specialist; Islamic image collections specialist; and head, GIS services. Other non-librarian positions requiring special skill sets were communications coordinator and library technology consultant. The remaining two positions were non-librarian, supervisory positions that represent excellent advancement opportunities for qualified support staff in the Libraries. Serious searches were conducted in both cases and each one resulted in the appointment of the best-qualified candidate—an MIT Libraries employee.

Fifteen support staff positions were filled this year, two fewer than were filled last year. With one exception, all of these positions were library assistant positions. Applicant pools for support staff positions remain healthy and promising.

The sponsored research staff (SRS) recruitment program was robust. Four such positions were filled, which essentially doubled the Libraries' SRS contingent. The Libraries' involvement in the DSpace@Cambridge project and the Microsoft iCampus-funded project required the recruitment of programming and technical staff. In support of these projects, the positions of DSpace programmer, DSpace@Cambridge programmer, technical analyst, and research scientist were added to the Libraries' headcount. The position of research scientist is noteworthy, as it represents the first research position ever created in the Libraries. Coincidentally, the search resulted in the first international scholar appointment ever to be made in the Libraries as well.

It is worth noting that more than one-third of the library positions filled in FY2004, not counting SRS positions, were temporary (one- to two-year terms). This business model reflects the Libraries' need to be flexible and have a limited headcount as we respond to new and changing service needs, programmatic developments, and aggressive goals in sustaining the MIT Libraries' leadership position among academic research libraries.

Also, in the case of positions such as metadata specialist (for the OCW project) and conservation technician, appointment terms are limited as these projects are funded by soft money.

Also worthy of note is the increasing number of MIT alumni or former MIT students in the Libraries' employ. With the appointment of a library technology consultant in Systems and Technology Services this year that number has grown to nine, or almost 5 percent of the total staff. Five of these individuals are librarian staff, three are technical staff, and one is a library assistant.

The voucher/casual employment program remains steady. This type of employment enables the Libraries to maintain high-level service and to carry out short-term projects in the face of staff vacancies and student recruitment difficulties. In FY2004, the Libraries employed 18 voucher employees.

### ***Affirmative Action and Diversity***

In FY2004, 12 percent of all applicants for administrative staff positions were identified as possible minorities. One-third of the interview processes for serious searches conducted in the Libraries included minority candidates and, of the nine serious searches conducted, one minority appointment was made. This appointment increases the Libraries' percentage of underrepresented minorities on the administrative staff to 7 percent. While minority representation among the support staff remains higher than administrative staff (10 percent), it has decreased with the departure of several individuals.

### ***Retention***

The Libraries' retention rate is high at 93 percent. Nine support staff employees departed this past year, citing a variety of reasons. One retired after 27 years of service, one joined the ranks of the librarian profession after receiving her master's degree in library science, and another left to pursue personal interests.

The Libraries saw the departure of five administrative staff members. Two accepted positions of greater responsibility in other academic institutions, one was the result of a family relocation, one left to pursue personal interests, and the other began the academic year as a full-time MIT student.

### ***Salaries***

Competitive salaries play an important role in the recruitment and retention of librarian and administrative staff. The MIT Libraries has increased its competitive standing in the marketplace as a result of the Institute's commitment to improving these salaries. According to the recently released (2003–2004) Association of Research Libraries (ARL) Annual Salary Survey, MIT ranks within the top 15 among 114 academic and research libraries, climbing three steps from last year's ranking in average professional salary and four steps in beginning professional salary (Table 9). Among 22 selected peer institutions

in this group, MIT has improved its competitive position by two steps—ranking 7th—and topping Harvard for the first time.

**Table 9. MIT Improves Salary Standing among Association of Research Library Peers<sup>a</sup>**

	Ranking			
	2000–2001	2001–2002	2002–2003	2003–2004
Beginning professional salary	15	17	9	5
Average professional salary	23	18	16	13
Average professional salary position among 22 peers <sup>a</sup>	12	9	9	7

<sup>a</sup> MIT, Harvard, UC Berkeley, UCLA, Stanford, Connecticut, Princeton, Columbia, USC, Dartmouth, Yale, UMass Amherst, Brown, Michigan, Northwestern, Virginia, UT Austin, Duke, Wisconsin, Penn, Georgia Tech, Purdue

## Rewards and Recognition

In late May, the library staff came together for the fourth annual Rewards and Recognition luncheon and ceremony, where the individual and collective accomplishments of 28 colleagues were recognized. Four individuals and four teams received certificates of appreciation and cash awards as part of the Libraries' Infinite Mile Program for their contributions in the areas of innovation and creativity; communication and collaboration; results, productivity and outcome; and community.

The Libraries' Spot Award program continues to be a success, with thank-you submissions up by 25 percent this year. A total of 44 awards were distributed this year as part of the Spot Award Program. An average of 186 thank-yous were submitted each month. The program consists of a monthly drawing of four names from a pool of submitted thank-yous. The award is \$100 in gift certificates to vendors such as The Home Depot, Amazon.com, and Simon Malls.

One of Administrative Services' own staff, Greg Raposa, was the recipient of an Infinite Mile Award for results, outcome, and productivity. He was commended for shepherding through to completion numerous construction projects (RVC, Preservation Services, Hayden entrance) and facilities issues. Whether acting as a liaison between the Libraries and contractors or Institute staff, offering insight and suggestions in advancing a project, or advocating for the Libraries on construction projects, he demonstrated a real understanding of the issues large and small, as well as a positive, can-do attitude, and, simply, "got the job done".

## Looking Ahead

Administrative Services will focus attention on several areas in the next year:

- Payroll procedures: There is a demonstrated need to study and improve the procedures with which the Libraries submits payroll information. This is particularly true for the support, student, and casual payrolls, which represent the most frequently paid (weekly) and largest number of staff members (100+).
- Delivery Services: This unit of Administrative Services is responsible for moving books and other materials from unit to unit within the Libraries, as well as mail to and from MIT's central mail facility. There is an urgent need to re-engineer this operation so it can be more responsive to the Libraries' needs and ultimately play a more direct role in putting library materials into the hands of the MIT students and faculty who have requested them.
- Budget planning: The last three years have seen an enormous improvement in the area of the Libraries' budgeting and financial planning, but there are still a few changes that could help to improve the understanding and use of budget projections by decentralized staff.
- Building projects: Any movement forward in the planning stages of a new engineering and science library or a new Dewey Library will require the involvement of Administrative Services.
- New Version of the Online Library System: Aleph version 16, which is scheduled for implementation during the second half of FY05, will require some level of training and change for the financial staff in Administrative Services who oversee fund expenditures and process invoices.
- Growth in Sponsored Programs: As the Libraries builds up its volume of sponsored research and looks for outside funding to carry out a variety of projects, the demand for administrative support in both the preparation of proposals and maintenance of ongoing programs continues to increase. It would be helpful to increase our understanding of these complex processes through some formal training.

**Keith Glavash**

**Assistant Director for Administration**

## Technology Planning and Administration

The MIT Libraries are now among the top research libraries worldwide for their leadership in the use of technology. The Libraries are at the forefront of both digital library research and innovative use of technology for core business functions, and are increasingly playing a key role in the definition of technology used for the teaching activities of the Institute. As we continue to streamline our ability to start up new technology-related projects and bring them to successful conclusion, we have seen progress in almost every activity of the Libraries. On the research front, MIT continues

to build its international reputation for leadership and innovation in many areas, and has concluded one major project this year while starting two more.

## **Systems and Technology Services**

### ***Current Goals and Priorities***

The Systems and Technology Services (STS) Department is responsible for supporting or coordinating technology-based services and projects that involve staff members from all library units. Its ongoing challenge is to provide strong, centralized, technology support while participating in widely distributed initiatives that depend on technology. Perhaps the most important—and frequently most challenging—strategy is to continually consider the Libraries' technology and service priorities and to focus the department's energies on the highest priority needs and initiatives.

### ***New Initiatives***

STS staff have undertaken analysis for and implemented a large number of new initiatives that have been identified by the Libraries as high priority. The highlights include:

- Analysis of infrastructure requirements for large-scale digitization projects.
- Initial implementation of an online problem-tracking system to support a new central help service.
- Implementation of a new system to gather and report usage statistics for electronic resources licensed by the Libraries.
- Deployment of unmanned computer workstations for the new Libraries kiosk in the Stata Center.
- Migration of the Libraries staff to a centrally-supported calendaring system (TechTime).
- Implementation of cataloging tools for Rotch Visual Collections.
- Analysis of functional requirements and environmental scan of available solutions for resource discovery/cross-database search tools.

### ***Production Systems***

This year has seen a number of important incremental improvements to the Libraries' core business systems, including:

- Full implementation of the Barton integrated library system, with all back files loaded and a disaster recovery plan in place.
- The revies of the Libraries' public website, and the complete redesign of the top-level home page.
- Various improvements to Vera, the Libraries' system for managing its electronic resources.
- Improvement of the Libraries' proxy server for accessing licensed electronic resources to lower the support cost to staff.



- Analysis of the new win.mit.edu domain and evaluation of its applicability to the Libraries' environment.
- Significantly improved organization and management of the UNIX server environment to ensure appropriate stability, reliability, and recoverability.

### **Staff Recognition**

Nathan Matta and Pam Nicholas (the Desktop Support Group) were recipients this year of an MIT Libraries Infinite Mile Award for results, outcome, and productivity. They were recognized for their critical and high-level performance in support of the Libraries' Windows domain and of the local technology experts, and for addressing pressing network security concerns, particularly while short-staffed. They were labeled the "unsung heroes" of the Libraries, providing superb, prompt, and dependable service without a lot of fuss or publicity.

### **Digital Library Research Group**

The Libraries continue to expand its digital library research program, both by working with major national and international groups working in this area (e.g., the Digital Library Federation <http://www.diglib.org/>) and by conducting a number of grant-funded research projects.

### ***DSpace***

The DSpace initiative (<http://dspace.org/>) continues to be one of the definitive projects in the international digital library arena, as well as the digital media life-cycle management domain in general. The MIT Libraries continue to collaborate with Hewlett-Packard (HP) on the DSpace project, as well as a growing number of research institutions and other organizations worldwide. This year, the research group concluded a highly successful project funded by the Andrew W. Mellon Foundation to begin development of the DSpace Federation, the group of institutions who will, together with MIT and HP, continue to develop the DSpace platform and explore its various uses over the coming years. This project supported collaboration among six major research libraries in the US, Canada, and the UK to work together on how to expand DSpace to work for research institutions in general, and to develop plans for an organization to continue this work into the future. In the past year, we have completed a major new release of the software, and seen the use of the system grow to more than fifty "live sites" in addition to MIT, with another hundred or so on the way. While there are other important initiatives in the area of digital libraries, institutional repositories, digital life-cycle management software, and open source software, it is safe to say that the DSpace project has captured the collective imagination of the research library world. It is difficult to catalog the many events, accomplishments, and learnings of this project in a brief report, so suffice to say that MIT's decision to start this project, and its ongoing investment in it, continues to be a sound choice.

## ***Research Projects***

The Digital Libraries Research Group has continued to expand its project portfolio, and is currently working on five grant-funded research projects, in addition to the one that concluded in 2004. The projects range from outreach and educational initiatives to state-of-the-art technology research questions, and demonstrate the breadth and depth of expertise being developed by the MIT Libraries in this area. The current projects include:

- DSpace@Cambridge, a collaboration with the Cambridge University Library in the UK with funding from the Cambridge-MIT Institute (CMI) to deploy DSpace at Cambridge University, promote DSpace in the UK, and develop the system in the areas of digital preservation and support for educational technology.
- LEADIRS, another CMI-funded collaboration with the Cambridge University Library to develop a workshop series on institutional repository issues for UK institutions.
- SIMILE, a collaboration with MIT's CSAIL, the W3C, and HP Labs to bring the Semantic Web technology into the real-world domain of library metadata and to integrate that technology into DSpace.
- CWSpace, a Microsoft iCampus-funded project to investigate the standards and protocols necessary to archive educational material produced under the OCW initiative into long-term digital repositories such as DSpace.
- DSRB, a project funded by the US National Archives and Records Administration through the National Science Foundation to collaborate with the University of California, San Diego Libraries and the San Diego Supercomputer Center (SDSC) to investigate the use of data-grid technology for content storage, as implemented by SDSC's Storage Resource Broker open-source storage management technology.

## **Other Issues and Initiatives**

### ***Network Security***

Network security continues to be a growing problem for the MIT Libraries, as it is for MIT as a whole and the world in general. This year we experienced several severe technical security problems—from the desktop computers we all rely on to Barton, our most heavily used system. We have worked closely with the Information Services and Technology Department (IS&T) as well as our system vendors to solve these problems and reduce the likelihood of their recurrence, but keeping the Libraries' computing environment safe and secure is becoming a much bigger challenge with each passing year.

### ***Managing Electronic Resources***

This year, together with Harvard University, the Libraries participated in a successful collaboration with the Ex Libris library system vendor to define the functionality for a new system to manage electronic resource. This partnership has led to the successful definition of a formal co-development agreement for a new product, Verde. While the

specification work is largely complete, this co-development arrangement is ongoing and will, we believe, result in an important new product for the library market that MIT itself can benefit from.

### ***Libraries and Educational Technology***

MIT continues to invest and expand in the use of technology for the educational activities of the Institute, and the Libraries continue to play a key role in these developments. Among other things, technology staff participated in an Andrew W. Mellon-funded initiative led by Harvard University to define the appropriate role and functionality for digital libraries in support of learning management systems. Technology staff are involved in planning for the integration or interoperation of the various educational technology initiatives around MIT. They consult on metadata issues, discovery issues, storage and preservation issues, and more.

### ***Digital Library Standards***

The Libraries' Technology staff are also engaged in defining and developing new international standards that will be required to take the digital library and preservation development agenda forward in the future. These include standards for metadata and content sharing (e.g., METS <http://www.loc.gov/standards/mets/>) as well as standards for creating infrastructure to support distributed digital preservation (e.g., the Global Digital Format Registry <http://hul.harvard.edu/gdfr/>). The participation of MIT Libraries experts in these initiatives is helping to insure that MIT is well placed at the center of future research and development initiatives in this area, both in terms of funding opportunities and business opportunities as they arise.

### **Conclusion**

FY2004 was another year of major progress for technology in the MIT Libraries. Production systems continue to improve and become more reliable. New initiatives are being undertaken with increasing ease and success. The MIT Libraries' digital library research program continues to establish itself as one of the premier such programs in the world, and is attracting an ever-increasing amount of attention and funding. The opportunities to exploit technology and to advance the work of the MIT Libraries, and libraries in general, are becoming more achievable with each year. We look back with satisfaction at what we've achieved in this past year, and look forward to an even more energizing 2005.

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Associate Director for Technology