Bĭb·li·o·Tĕch NEWS FROM THE MIT LIBRARIES

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FROM THE DIRECTOR



Research based education has long been both a hallmark and a defining principle of the MIT experience. In 2012, however, neither research nor education resembles the MIT experience of earlier, more analog-based centuries. Advances in information technology, communications technology, and computer science have enabled a fundamentally new approach to both research and education, and MIT is recognizing and embracing those advances. New interdisciplinary disciplines and laboratories are emerging, new opportunities to extend MIT's successful pedagogy

beyond the physical campus are being explored and implemented, and the potential to enhance MIT's on-campus education through the creative use of educational technology is receiving renewed and enthusiastic attention.

These same advances have also brought dynamic change and exciting opportunities to the academic research libraries that underpin the academic enterprise. The transition of peer-reviewed scholarly journals from print to electronic formats, available primarily through license agreements with private publishers, is old news by now—albeit still problematic for research and education. But other profound changes are also occurring in the ways that researchers and scholars generate and share new knowledge. This in turn affects the techniques and tools research libraries must develop and deploy to effectively manage research advances for current and future generations.

In many fields the rigid constraints of the traditional journal article have led to a proliferation of faster, more flexible alterative venues. Researchers and scholars are documenting advances in their fields in free and open working paper collections, technical report databases, and websites that host conference presentations and poster sessions. Important science policy documents are released as PDFs on agency websites. Exciting discoveries are announced on Twitter. And more and more researchers now produce research results in digital formats that include numeric data, images, video, audio, software, algorithms, equations, animations, simulations, and models.

Universities themselves face new challenges as they grapple with questions surrounding the appropriate management of copyrightable intellectual property produced on their campuses. Faculty have begun adopting policies that assert research produced on their campus should be available and accessible to all, not just those who can afford to pay high subscription or per-article fees. Universities desire to host a comprehensive record of their contributions to society rather than have that record rest under the control of privately controlled entities.

Throughout the academy, among private and public sponsors of funded research, and across the research library community itself, there is general agreement that research libraries are uniquely positioned and prepared to accept the challenge of capturing, preserving, and making accessible the advances in knowledge embedded in these new forms of communication and documentation. We agree.

Starting with the development of the open source repository platform, DSpace, the MIT Libraries have embraced that challenge and contributed to solutions. But we have long understood that the work of inventing a sustainable digital future for research and scholarship—including building the necessary infrastructure—is far too great for any one institution.

How will web pages be systematically captured, documented, and preserved? How will research data, in all its formats, manifestations, and complexities be curated and preserved? How long should various data types and formats be preserved? How will supporting data be linked to the PI's published description of the results so that others might understand and replicate the findings? What security is needed to protect archived data from alteration or mischief? What standards and protocols must be developed, and what degree of redundancy is necessary? How will faculty papers, so critical to historians, be managed and curated when they arrive on a hard drive and reflect generations of proprietary software systems? These are but a few of the questions that must be answered and managed at scale.

The MIT Libraries are active participants in the national and international discussions surrounding these important issues. We are exceptionally fortunate to have outstanding strength among our staff, and we look forward to participating in policy discussions, conducting necessary research, and continuing to contribute to the answers to these fascinating but daunting challenges.

Ann J. Wolpert Director of Libraries 617 253 5297 awolpert@mit.edu

SUPPORT FOR OPEN ACCESS

ON CAMPUS AND BEYOND

When the MIT Faculty Open Access Policy was established three years ago, the Libraries were asked to administer the Policy, with guidance from the Faculty Committee of the Library System (FCLS), to help faculty share their scholarly articles worldwide. The Libraries have built a collection of now over 5,000 articles that are freely available in DSpace@MIT (dspace.mit.edu). The collection continues to grow and is accessed from nearly all countries around the world. In February 2012, monthly downloads of articles reached a new high of 30,000.

The FCLS has recently formed an Open Access Working Group that will also be supported by the Libraries. Professor Richard Holton is leading the Working Group established to advance the goals of the MIT Policy by developing strategies and recommending practices that will increase the availability of articles. Ellen Duranceau, Program Manager for Scholarly Publishing & Licensing for the MIT Libraries, will act as staff to the group.

The Libraries support for open access extends beyond MIT as well. As a member of the Coalition of Open Access Policy Institutions, the Libraries collaborate with other academic institutions to encourage broader open access and share strategies in supporting faculty policies.

In addition, the Libraries maintain memberships in these publisher programs: BioMedCentral, Nucleic Acids Research, PLoS, PNAS, Royal Society, and the Royal Society of Chemistry that provide discounted open access processing fees for MIT authors, giving them more options to disseminate their work. To learn more see: libraries.mit.edu/oasupport



View a video of MIT faculty sharing their thoughts on the evolution of scholarly publishing, and the goals and impact of the MIT Faculty Open Access Policy: bit.ly/facultyOA

COOKIES WITH CANINES

THERAPY DOGS PROVIDE STRESS-RELIEF DURING FINALS WEEK

In addition to the usual cookies, snacks and coffee served up by the Libraries during finals week, this year included a dose of tail-wagging, furry stress-relief in the form of therapy dogs. Crowds of students flocked to "Cookies with Canines" study breaks in Hayden and Barker libraries to socialize with Lucy the Beagle, Thabo the Rodesian Ridgeback, Ruari the Irish Wolfhound and other four-legged friends.

"By all accounts, the Cookies with Canines event was a terrific success," Libraries' organizer Ellen Duranceau said. "We estimate that we lifted the spirits of 450 students (300 at Hayden and 150 at Barker) during finals week. We heard nothing but positive feedback, and saw nothing but smiles."

Duranceau, the Libraries' Program Manager for Scholarly Publishing and Licensing, is also a volunteer at Dog B.O.N.E.S, a non-profit therapy dog organization. With the enthusiastic support of Director of Libraries, Ann Wolpert, she coordinated ten volunteer teams of dogs and their handlers for two study breaks in December. Several of the volunteer handlers had MIT connections, including an MIT alumnus, and MIT Police Sergeant Cheryl Vossmer.

Students were overwhelmingly appreciative—some staying for the entire duration of the event—petting dogs, socializing with the dog owners as well as other students and staff.

"In one case, a student stayed with one of the dogs for one and a half hours. This student arrived lamenting that MIT 'is a very stressful place,' but left smiling and relaxed, even giving the dog a hug before leaving." Duranceau said.

Over 300 students gathered outside Hayden Library to visit with therapy dogs. Cookies with Canines will return for finals week in May.



CHOMSKY ARCHIVES AT MIT

MIT's Libraries were recently chosen to be the stewards of the personal archives of noted linguist, political activist, and Institute Professor emeritus, Noam Chomsky. The significant collection spans a long and distinguished career, beginning when Chomsky joined MIT in 1955 in the Research Laboratory of Electronics, through his years as a professor in the Department of Modern Languages and Linguistics, then as Institute Professor.

Often referred to as "the father of modern linguistics," Chomsky revolutionized the field and paved the way for transformational grammar and universal grammar theories. He has made significant contributions to the fields of psychology, cognitive science, philosophy of language, and philosophy of the mind. He is also well known for his political activism and outspoken support for freedom of speech and social justice. He was once quoted in *The Guardian* as saying, "If we don't believe in freedom of expression for people we despise, we don't believe in it at all."

"It's fitting that Professor Chomsky's papers will remain at MIT as a resource for future generations of scholars. He revolutionized the way we think about the linguistic sciences and the cognitive mechanisms of language acquisition, and his ideas in many realms have had profound influence on scholarship and public discourse here at MIT and worldwide," MIT President Susan Hockfield said.

The addition of Professor Chomsky's personal archives, and a large portion of his personal library, augments a small existing collection of his papers already in the care of the MIT Libraries' Institute Archives. The collection will have great historical research value as it will provide researchers with unique insight into Professor Chomsky's thinking, and the development of the field of linguistics, as well as his views on significant issues in social activism from post-WWII through the present day.

"Over the last fifty years, Noam Chomsky has not only created the building blocks of linguistic theory and understanding, but has built a remarkable and unique department of Linguistics that has nurtured several



Noam Chomsky

generations of linguists who have taken their MIT experience into and across the globe. It is wonderful that Noam's papers, which span this long period of growth and development, will be available to scholars for many years to come," MIT Dean of Humanities Deborah Fitzgerald said.

Staff from the MIT Libraries and Institute Archives and Special Collections are in the beginning stages of transferring the material to the Archives. Initial work in organizing the Chomsky collection will occur this year, with additional work on improving access to the collection, including online access to portions of it, continuing over the next several years. When work is done, scholars will have unprecedented access to an enormous depth and breadth of material from one of the world's most renowned linguists and top intellectual minds.

MIT's Archives are delighted and honored to be the stewards of Noam Chomsky's historical legacy.

Those interested in learning more about the collection and supporting its stewardship should please contact:

Head, MIT Institute Archives & Special Collections 617 253 5688 rosko@mit.edu

GLASS AT MIT: BEAUTY AND UTILITY

In MIT's Glass Lab, students gracefully shape glowing, molten glass into works of art, while in an MIT research lab researchers explore the use of nano-sized glass stamps for tiny, precise biosensors to enable clinicians to test for disease.

Glass at MIT is ubiquitous. Since MIT's first classes in 1865, its labs have contained test tubes, retorts, vacuum lines, and vessels of all sizes and shapes essential to scientific work. Learning to blow glass was a standard part of a chemistry student's education, while architecture students studied its central role in the design and construction of buildings. Glassmaking is nearly 4000 years old, but scientists and artists today, like the alchemists of the past, remain fascinated by the "frozen liquids" that can be manipulated at high temperatures and cooled to rigidity.

A new exhibition by the MIT Libraries takes a historic view, tracing the evolution of glassmaking from the sixteenth to the twentieth century. It features a gift to the Libraries: the Charles J. Connick Stained Glass Foundation Collection, as well as rare books from the Institute Archives and Special Collections. Stunning stained glass windows, sketches, full-size drawings, tools and objects from the Connick collection, the MIT Glass Lab and MIT Museum are on display along with video of artists working in the medium.

This article also appeared in the January/February 2012 issue of the MIT Faculty Newsletter.





MIT Glass Lab pumpkin, St. George, 1939 window by Charles J. Connick

Glass at MIT: Beauty and Utility is on view in the Maihaugen Gallery (14N-130) through July 2012. See **libraries.mit.edu/maihaugen** for hours and information.

To learn more about Charles J. Connick, and view a slideshow of his work, visit: **libraries.mit.edu/connick**.

Nancy Schrock Thomas F. Peterson, Jr. (1957) Conservator, and Exhibit Committee Chair 617 452 4064 nschrock@mit.edu

MIT LAUNCHES BORROW DIRECT SERVICE

In January, the MIT Libraries launched their new Borrow Direct (BD) service joining libraries from Brown University, Columbia University, Cornell University, Dartmouth College, Harvard University, University of Pennsylvania, Princeton University, and Yale University.

This means, MIT faculty, students, and staff can now request books, scores, and other tangible materials directly from these partner libraries using MIT's WorldCat (mit.worldcat.org) or "Search MIT's WorldCat" from the Libraries home page (libraries.mit.edu). Over 50 million items are available via this user-initiated, direct borrowing service. Requests are automatically routed to partner libraries where the materials are available at the moment of request, resulting in faster delivery time than traditional interlibrary borrowing.

Partnerships like Borrow Direct are one of the many ways academic libraries are collaborating to offer a wider range of collections and services to their communities, while at the same time benefiting from greater efficiencies. MIT Libraries are working with peers on several pilot programs that focus on sharing collections.



The MIT Lewis Music Library has joined with other Borrow Direct music libraries to pilot a program for acquiring and sharing musical scores by significant 20th and 21st century composers. This assures a broader range of scores are acquired across institutions, as individual libraries take responsibility for specific composers. Additionally, engineering librarians are investigating methods for acquiring and sharing electronic books within BD institutions. This idea seeks to push the boundaries of a cooperative model to build a collective, comprehensive and digital research collection in engineering areas.

These partnerships offer promising new ideas and opportunities to academic libraries and the communities they serve.

SUPPORTING THE LIBRARIES

GIFT TO LEWIS MUSIC LIBRARY INSPIRES CREATIVE TEACHING

When Constance Kantar, daughter of Samuel Glaser '25, chose to give a collection of pages from a large-scale medieval Western European manuscript that belonged to her father to MIT's Lewis Music Library, she did so because she knew it would be used for teaching. She did not realize that the collection of pages, now referred to as the Glaser Codex, would result in a complete-and immediate-rethinking of music professor Michael Cuthbert's fall syllabus for his early music class.



Students Victor A. Morales and Jessica Pourian study a page from the Codex

In the pages of the Codex, Professor Cuthbert saw an opportunity to lead a class that would not only impart the fundamentals of early European music history but also allow students to apply scientific research methodology to establish a body of information about this previously unknown manuscript. Students would be able to conduct hands-on research by examining the original object in the Music Library, and generate important new scholarship as part of the class.

The Codex is a complex object to study. It comprises the remains of a 107 folio (214 page) manuscript of chants for religious masses honoring saints (a Sanctorale). These were hand lettered, painted on parchment and bound as a book large enough to be read by a choir performing the chants. Kantar gave 20 pages to MIT along with a massive bookbinding of leather over wooden boards with metal bosses. The illuminated Codex is actually two manuscripts in distinguishably different hands: the original manuscript-perhaps from 15th century Spain-was later recompiled, possibly in the 16th century. At the time, a scribe rearranged it, removing some chants, adding others, and changing the folio numbers (in red at the top of each "recto" or front side) of the pages and creating a new index. The Codex was dismantled in the mid-20th century and many of the pages dispersed as gifts to individual private collectors.

As part of the class, each student was assigned one of the pages of the Codex to research its history, content and style using sources available through the Music Library. With the guidance of staff from the library they used comparable manuscripts, medieval literature and religious texts, print and digital music history scholarship, and scientific data about materials and production in the Middle Ages in their assignment. Each student's resulting paper has been placed online, with images of their pages, as part of a website that shares knowledge discovered about the Codex:

web.mit.edu/cuthbert/www/glaser/

In addition to the 20 pages and binding now owned by MIT, Cuthbert and Libraries' staff are working to reproduce the entire Codex in digital form, collaborating with Kantar to find pages owned by private collectors and incorporating high-quality images into the research documentation. Thus far, images of dozens of pages have been collected from throughout the United States and in Europe. The digitization of these pages is funded by gifts from the MIT Libraries' Class of 1982 Music Library Fund and is carried out by Nancy Schrock, the Libraries' Thomas F. Peterson, Jr. (1957) Conservator and her colleagues in the Wunsch Conservation Laboratory and the Libraries' Document Services group.

Cuthbert is already developing new projects for his spring 2013 early music class to continue assembling information on the Glaser Codex. Some ideas he's exploring include conducting DNA research on the parchment pages to determine more precisely where the book was produced based on where animals with similar DNA identifiers lived in the 15th and 16th centuries. Mass spectrometer research could also provide clues about the chemical make up of the inks to better pinpoint when individual pages were written and when the book was revised. Cuthbert's students will undoubtedly put their MIT research skills to work to come up with even more creative ways-traditional and unexpected-to further unravel the mystery of the Glaser Codex.

Steven Horsch Head, Donor Relations & Stewardship 617 452 2123 horsch@mit.edu

MEET TITO SIERRA

A Q&A WITH THE NEW ASSOCIATE DIRECTOR FOR TECHNOLOGY

In January 2012 Tito Sierra joined the MIT Libraries as Associate Director for Technology. He most recently served as Associate Head of the Digital Library Initiatives Department at North Carolina State University, where he led a team that develops new digital library applications and services. Prior to NCSU, he held website development and program management positions at Amazon.com during its early growth period. Sierra has a Master of Science in Information Management from Syracuse University, and a Bachelor of Arts in Government from Harvard College. At MIT, Sierra will have broad responsibility for technology strategy and management across the Libraries, providing leadership for the design, staffing, and implementation of technology initiatives.

What drew you to MIT?

There are many reasons why I was attracted to MIT. The culture of MIT is distinctive in higher education for its fusion of innovation and pragmatism. I aspire to be both innovative and pragmatic in my work, so it only makes sense to work for an organization where these values are endemic.

The MIT Libraries has long held a reputation for technological and service innovation. For example, MIT Libraries was an early leader in developing the open digital repository DSpace, and supporting the efforts of MIT's faculty in open access scholarly publishing. The Institute as a whole is a pioneer in providing open access to instructional materials with initiatives such as OpenCourseWare and MITx. I am excited to build on MIT's work in the open access space.

I should also mention that I have some history with the Institute, having worked for the MIT Libraries briefly after college in the 1990s. I have fond memories of that time at MIT, and that positive experience certainly had an influence on my decision to return 15 years later. It feels a little bit like a homecoming.



Tito Sierra

You've worked for a couple of "start-up" companies. What can libraries learn from start-ups?

Successful technology start-ups are very good at exploiting information technology in new ways that add value. They also excel at quickly adapting technology to address real-world needs. My IT background has taught me that continual experimentation and adaptation is key to fully realize the value of new technologies. Libraries can benefit from pursuing technology initiatives in a much more rapid and agile way.

What do you hope to accomplish in your first year here?

I see a lot of talent and enthusiasm in the staff of the MIT Libraries. I also see an opportunity to strengthen the coordination of staff effort across the organization, particularly around technology initiatives. As Associate Director I can encourage staff and introduce processes that help the organization accomplish its goals more effectively. By the end of my first year I hope we are in a better position to respond to the challenges and opportunities of an increasingly digital future.

Can you share any insights on the future of research libraries?

Research libraries are in a period of transformative change. The rapid proliferation of digital technologies and networked information services has fundamentally altered how people discover, consume, create, and share information. To be successful in this changing world, research libraries need to approach technology opportunistically, to create new value for our faculty, students, and external communities. I can think of no better place to help shape this future than at the MIT Libraries.

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WHAT'S NEW IN THE LIBRARIES?

APPS PROVIDE ACCESS TO MANY LIBRARIES' SERVICES

Members of the MIT community can download the free MIT Mobile Android or iPhone app to access many MIT services, including the following MIT Libraries services:

- Manage your account: renew books you have checked out and view your requests or fines;
- View hours and locations for each library;
- Ask questions, submit comments, or request a meeting with a subject librarian;
- Read news from the MIT Libraries blog;
- Discover mobile tools to help with your research.

You can also get to these services by going straight to the Libraries mobile website at **m.mit.edu/libraries**.

L. Barry Hetherington





L. Barry Hetherington

NEWLY UPDATED CLASSROOM HOSTS IAP

The DIRC (Digital Instruction Resource Center), a well-used Libraries' classroom, has been given an update. New carpet, tables and computer monitors have been installed to make the room a more comfortable space for teaching and learning. During January IAP alone, over 30 classes were held in the newly outfitted space.

The Libraries offer popular IAP programming again during the month of April. Patent searching, citation management, and arts and culture multimedia are just a few of the topics that will be covered. For a complete listing of IAPril classes see: **libraries.** mit.edu/classes

TSUNAMI EXHIBITION IN ROTCH LIBRARY

Tsunami 2011, an artistic response by artist, photographer and former MIT Department of Urban Studies and Planning fellow Camila Chaves Cortes, invites viewers to contemplate the Japanese tsunami of 2011 and the ensuing nuclear crisis.

The exhibition is on view at Rotch Library Gallery from April 6-May 31, 2012.



UPCOMING EVENTS

Friday, April 6–Thursday, May 31 Tsunami 2011 Exhibition Rotch Library (7-238)

Thursday, May 3, 5:00pm Composer Forum with Evan Ziporyn Lewis Music Library (14E-109)

Friday, May 4, 3:00pm 10th Annual Prokopoff Concert Lewis Music Library (14E-109)

Thursday, May 17, 2-3:30pm Cookies with Canines Hayden Library (14S)

Tuesday, May 22, 2–3:30pm *Cookies with Canines Barker Library (10-500)*

Coming in September 'MIT's Vail Collection, Unveiled" Exhibition Maihaugen Gallery (14N-130)



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