

News from the
MIT Libraries

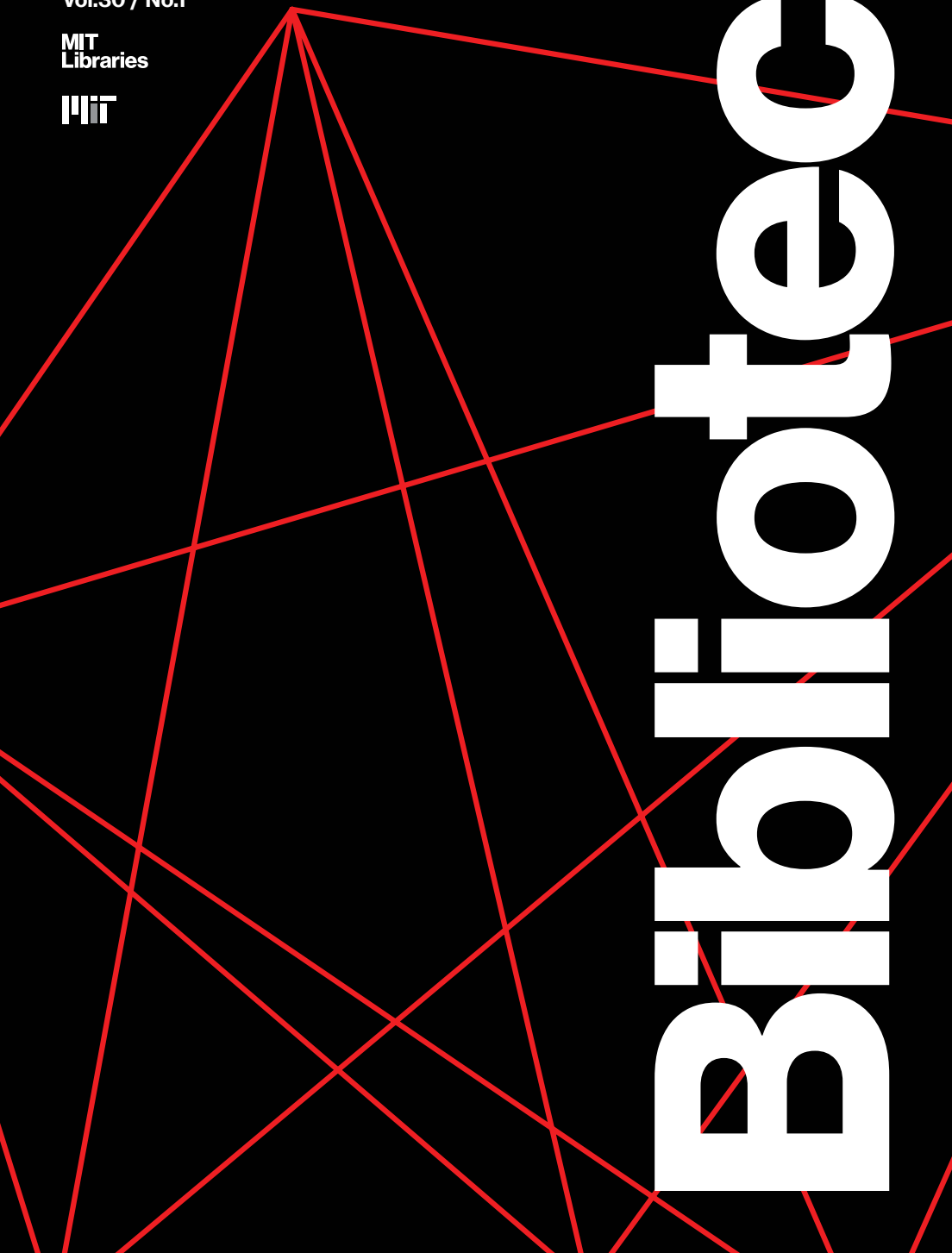
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Bibliotech



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What's New

Bibliotech

News from the MIT Libraries, an official publication of the MIT Libraries, is published twice a year, in the fall and spring.

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Pentagram

From the Director

“As curators of knowledge, we literally decide who should be seen in the world and how, who should be heard in the world and how, and whose memories should be preserved and how.”

These are the words of Anasuya Sengupta, who gave a powerful keynote address at the Grand Challenges Summit in March. She spoke eloquently about the responsibility, and opportunity, we have as scholars, practitioners, and technologists (p.04) to curate and preserve information.

The stories we tell in this issue of *Bibliotech* bear this out. We launched a project to expand our collections of MIT women faculty in science and engineering because archives have the power to make them more visible (p.08). We partnered with history professor Craig Steven Wilder on the MIT and Slavery course because hands-on archival research gives students the opportunity to write the Institute’s history (p.12). And as machine learning and artificial intelligence become more critical to research like materials science professor Elsa Olivetti’s (p.14), it will be imperative for libraries to ensure that the data read by machines is not only accessible and of high quality, but also inclusive and diverse.

There is incredible potential, and incredible responsibility, in building a new information future — in figuring out how to make knowledge more open, more inclusive, and more available to those who want to get their hands dirty with it. We think there’s no better place than MIT to tackle this work, collaborating with our partners around the world. That’s what we’ve started with the Grand Challenges Summit, and what we hope to continue with support from people like you.

There is exciting work ahead. We hope you will be a part of it. All my best,



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Photo
Bryce Vickmark



quire preserve and

ALL THE
THINGS!



of



Libraries Host Grand Challenges Summit

Experts convene at MIT to set research agenda

Forty-five experts from across disciplines gathered at MIT March 19–23 for a week of workshops focused on the most vital issues in information science and scholarly communication.

“We gathered experts from across many domains, locations, and social roles,” said Chris Bourg, director of MIT Libraries. “We spent a lot of time developing an idea of what the challenges are from many points of view.”

The summit focused on three areas — scholarly discovery, digital curation and preservation, and open scholarship — to identify critical problems that are solvable within 10 years. For each topic, there was a keynote speaker and a one and a half-day workshop to produce a draft research agenda.

In the opening keynote, Kate Zwaard, director of digital strategy at the Library of Congress, shared creative projects from LC Labs, which encourages innovation with the Library’s digital collections. One initiative invites the public to develop digital projects using congressional data; others use color as a way to explore the Library’s catalog. “We’re still in the early days of the disruption that computation is going to bring to our profession,” said Zwaard. But she sees collaboration and experimentation as critical to keeping libraries welcoming places: “We need to invite people into the tent.”

Keynote speaker Anasuya Sengupta leads Whose Knowledge, a global campaign to center the knowledge of marginalized communities on the Internet. She stressed the responsibility of knowledge curators in deciding whose voices are heard and preserved. Three quarters of the people online today are from Asia, Africa, and Latin America, but who is online is not reflected in the content online. Creating a truly global, inclusive sense of knowledge, said Sengupta, is a strategic choice and an ethical one: “So many communities are waiting for us to do this work.”

Kate Zwaard
Library of Congress

Photo
Bryce Vickmark

**“We spent a lot of time developing an idea of what the challenges are from many points of view.”
–Chris Bourg**

The Grand Challenges Summit is funded with the generous support of The Andrew W. Mellon Foundation

Photo

Bryce Vickmark

Watch the keynotes at grandchallenges.mit.edu

The final keynote speaker, Joi Ito, director of the MIT Media Lab, is a longtime advocate of Internet freedom and open scholarship. He discussed the profound impact of the Internet on scholarship and publishing. “The business model of transferring information was completely turned on its head,” he said.

“Innovation and research was pushed to the edges because the cost of collaboration was diminished. What’s not keeping up are the academic publications.” Ito described high-impact “citizen science” projects using open-source technology, his work with Creative Commons to legally share knowledge, and a first-of-its-kind collaboration between the Media Lab and the MIT Press to transform publishing.

A forthcoming summit report will be made available on the open publishing platform PubPub, where the community will be invited to comment.





Emerging Themes

Here are some of the key questions and themes that emerged from the workshops held on each topic.

Phil Bourne
University of Virginia

Photo
Bryce Vickmark

Scholarly Discovery

- How do we make discovery environments that reflect the values of transparency, agency, and participation?
- How do we ensure discovery is globally inclusive and supports mutual exchanges of ideas?
- What are the political, social, policy/legal, and economic barriers to creating these kinds of environments?

Curation and Preservation

- Making knowledge global
- Making data useful
- Making participation open and inclusive
- Promoting skill building

Open Scholarship

- What are possible incentives to motivate communities to participate in open scholarship?
- What infrastructures are needed to sustain open scholarship?
- What are the challenges to establishing the credibility, durability, and integrity of the record of human knowledge?

Institute Archives Spotlights Pioneering Women at MIT

Initiative builds collections of women faculty in science and engineering

Nancy Hopkins with Salvador Luria and David Baltimore at the MIT Cancer Center. Courtesy MIT Museum.

A new MIT Libraries initiative aims to highlight MIT's women faculty by acquiring, preserving, and making accessible their personal archives. The Institute Archives and Special Collections (IASC) launched the project last year with the generous support of Barbara Ostrom '78 and Shirley Sontheimer.

The first year of the project has focused on reaching out to faculty who are ending the active phase of their careers. Four faculty members added their personal collections, comprising 234 boxes and 50 GB of material. They are:

Nancy Hopkins

Amgen Inc. Professor of Biology Emerita, known for making zebrafish a widely used research tool and for bringing about an investigation that resulted in the landmark 1999 report on the status of women at MIT

Mary Potter

Professor Emerita in the Department of Brain and Cognitive Sciences, chair of the MIT faculty, and member of the Committee of Women Faculty in the School of Science; her research and teaching focused on experimental methods to study human cognition



“We’re committed to preserving and making accessible these unique materials so they can be shared with the world into the future.”

–Liz Andrews, Project Archivist

Mary Rowe

Adjunct professor at Sloan School of Management, special assistant to the president, and ombudsperson, a conflict resolution specialist whose work led to MIT having one of the nation’s first anti-harassment policies

Sheila Widnall ’60, SM ’61, ScD ’64

Institute Professor and Professor of Aeronautics and Astronautics, the first woman to serve as secretary of the Air Force and the first woman to lead an entire branch of the U.S. military



Mildred Dresselhaus
Courtesy MIT Museum.

A donation of the papers of Mildred Dresselhaus, late Institute Professor Emerita of Physics and Electrical Engineering and Computer Science, is also forthcoming. Dresselhaus, whose work paved the way for much of today's carbon-based nanotechnology, was also known for promoting opportunities for women in science and engineering. Discussions with additional faculty are also underway.

"We are honored to be stewards of these personal archives that have been given to MIT," says Liz Andrews, project archivist. "We're committed to preserving and making accessible these unique materials so they can be shared with the world into the future."

Acquisitions of MIT administrative records provide additional context to the personal archives and a broader view on issues of gender equity and the challenges faced by women in academia. The next phase of the project will continue to manage donations, prepare collections for use, and enlarge this core group by reaching out to women faculty who were tenured in the 1960s, '70s, and '80s.

Ultimately, the collections will provide not only rich resources for researchers, journalists, teachers, and students, but also, as Sontheimer says, inspiration for generations of women to come: "I'm hoping the project will encourage more women to become engaged in science, technology, and engineering."

News from MIT Press

Press Hosts Peer Review Transparency Workshop



In January 2018, the MIT Press partnered with Amherst College Press to host a critical dialogue on the nature of peer review at the MIT Media Lab and the American Academy of Arts and Sciences. With support from The Open Society Foundations, the Press convened scholarly publishers, academic librarians, technology innovators, and thought leaders in scholarly communications for a working meeting to create agreed-upon definitions of how peer review is conducted and opened a dialogue on how to most clearly and efficiently convey to readers how a published work has been reviewed.

In the “fake news” and post-truth eras, transparency, authority, and leadership in this arena are all the more important to maintaining the trust of readers. To learn more about the initiative and view a draft of the report, visit prtstandards.org. Questions or comments may be sent to info@prtstandards.org.

Publishing more than 300 books and 35 journals annually, the MIT Press is a leading light in scholarly publishing. The Press gives voice to the most credible and creative minds globally in order to advance our understanding of the world, its greatest challenges, and one another.

A prototype of icons that might indicate to readers the process by which various scholarly objects had been reviewed.

In the Laboratory of History

Through archival research, students uncover connections between MIT and slavery

Craig Steven Wilder
and Nora Murphy

Photo
M. Scott Brauer

In Fall 2017, the Institute launched a new two-semester course on MIT and Slavery. Co-taught by Craig Steven Wilder, the Barton L. Weller Professor of History, and Nora Murphy, archivist for researcher services, the class invited MIT undergraduates to do original archival research to investigate the Institute's connections to slavery. *Bibliotech* asked Murphy to share her experiences working with these students.

Do you think MIT students bring a unique approach to this kind of research?

MIT students bring an MIT approach: They ask the same questions they consider when facing an engineering, design, scientific, management, or other problem. They dissect information to determine the “who, what, when, where, why, and how” of something. Watching the students’ growing understanding of the similarities between doing research in the humanities and in other disciplines has been wonderful.

Mahi Elango '20 said she went into the class expecting not to find anything. Did the students have preconceptions about MIT's connections to slavery? Did that affect the questions they chose to pursue?

I think there were mixed expectations, though all started with open minds. As their research unfolded, each began to find connections to slavery and slave economies that they had not anticipated. The connections are not initially obvious. MIT was founded two days before the start of the Civil War, and the first classes were not held until the waning months of the war in a Northern, heavily abolitionist state. However, when you reflect on



the reliance of 19th-century textile and other Northern industries on the slave economies of the South, the connections become evident. It was very much a way of life in all parts of the American colonies and the fledgling United States and affected everyone.

Students began by asking questions that interested them: Were there students from Southern states? How did the curriculum reflect MIT's motto, "mind and hand?" Could you find voices of black students in student publications? Did MIT's publications include the same racialized language used contemporaneously? What the students found was disturbing, and additional research will help us to better understand MIT's 19th-century origins in context.

The course will continue to be offered, and students will add to this evolving history of the Institute. What are your hopes for the future of the project?

I hope that students will continue to approach the class with open minds and probing questions. Every question raises many more questions, and every "answer" deserves analysis. It's part of MIT's fabric to question, analyze, and apply what is learned to make the world a better place for everyone.

Watch the students present their findings at the "MIT and the Legacy of Slavery" community event at libraries.mit.edu/mit-and-slavery

Scouring Millions of Papers to Create New Materials

Libraries help make articles accessible for text and data mining
—By Hannah Picuch

Elsa Olivetti

Photo
Travis Gray

As a scientist interested in developing sustainable methods to create materials, Elsa Olivetti wanted to data mine decades of scholarly articles to provide researchers what she calls “a toolkit of how materials have been made, to learn how we can improve how they are made or make new materials.”

Olivetti, MIT’s Atlantic Richfield Assistant Professor of Energy Studies, and her collaborators built an artificial intelligence natural language processing system that could extract just the information on materials creation that they needed from the literature, capable of scanning far more articles than a human could. The catch? Many of the journals they were interested in were not available for data mining. This is when Olivetti started working with Ellen Finnie, head of Scholarly Communication and Collections Strategy for MIT Libraries.

“MIT researchers have been interested in text and data mining for decades,” Finnie said. “But academic journals and major newspapers are often behind paywalls or available only in formats that prohibit large-scale analysis.”

The Libraries purchase access to journals and other materials for MIT through license agreements, and Finnie and her colleagues have been negotiating for text and data mining rights in these licenses. “It is still such a new approach for publishers to allow this kind of access that the Libraries are working on standard language for text mining in the legal agreements with publishers,” she said.



To support Olivetti’s research, Finnie and her team, including Scholarly Communications and Licensing Librarian Katie Zimmerman, worked with each publisher individually to gain access to a wide swath of research in materials science. As a result, Olivetti and her colleagues have been able to analyze more than 1.5 million articles. To date they have published three papers on this work in the journals *Chemistry of Materials*, *npj Computational Materials*, and *Scientific Data*.

Providing researchers with access to minable texts and data is a growing need, Finnie said. While her team does much of the work on licensing, other library staff take the actual data—which often arrives from a publisher in a large text file with no sortable markers—and put it into a format that will allow researchers to assess what is there and decide how to approach it.

The barrier that Olivetti faced is one reason the Libraries are working to advance models for scholarly journal publication to become more open. “There are lots of different ways to move the environment towards more access and openness,” Finnie said. “And one way is to expand what is allowed through the license.”

Without the Libraries doing the licensing work, “the logistics would have been daunting,” Olivetti said. “Ellen and her team have been able to facilitate interactions with the publishers and move things along. If I had had to do all that on my own, I wouldn’t have started the project.”

Staff News

Chris Bourg
congratulates
Christopher Donnelly
on 10 years of service
to the Libraries

Photo
Bryce Vickmark

New Appointments

Helen Bailey
Engagement Data Engineer

Joe Carrano
Digital Archivist

Andrew Dorner
Senior Systems Administrator

Pat Flanagan
*Interim Associate Director,
Academic and Community
Engagement*

Shannon Hunt
*Executive Assistant to the
Director of Libraries*

Rhonda Kauffman
Metadata Librarian

Xindi Li
Access Service Associate

Maura Liggiio
Access Services Assistant

Kim Maxwell
*Head, Acquisitions and
Appraisal*

Greg Padilla
Access Services Manager

Monica Ruiz
*Access Services Associate and
Reserves Coordinator*

Elizabeth Soergel
*Engineering and Media Lab
Librarian*

Beverly Turner
*Program Head, Metadata and
Digital Collections Services*

Hannah Winkler
Access Services Assistant

Retirements

Liz Andrews
*Project Archivist for Women
at MIT; formerly Archivist
for Collections and
Associate Head, IASC*

Erja Kajosalo
*Chemistry and Chemical
Engineering Librarian*

Irene Mazor
Access Services Manager

Christie Moore
Collections Support Associate

Walter Powers
*Metadata Production and
E-Resources Associate*





New Award Honors Christine Moulen

This June the MIT Libraries will award the Christine Moulen “Good Citizen” Award as part of its annual Infinite Mile Awards program recognizing exceptional achievements and contributions by library staff. The award honors Christine Moulen ’94, our friend and colleague of more than 20 years who passed away in November. She is remembered for being “unfailingly patient, gracious under fire, and generous with her time and knowledge.”

The award will be presented to individuals or groups who exhibit some of Moulen’s remarkable qualities, such as generosity, willingness to support others, and sharing expertise to improve effectiveness.

Christine Moulen

Photo
L. Barry Hetherington

“Christine was warm, brilliant, and kind. She had a quick smile that few of us will ever forget.”
–Chris Bourg

Moulen, the library systems manager, was a three-time recipient of the Infinite Mile Award and a universally admired colleague. She began working in the MIT Libraries as a freshman in Course 16 and enjoyed the work so much, she stayed on in a full-time position after graduating. Moulen’s excellence was recognized not only by her MIT colleagues but also among a global community of peers. She was also a dedicated member (along with her husband, Anthony Moulen ’94) of the MIT Libraries’ softball team, the Bibliotechs, for more than 15 years.

“Christine was warm, brilliant, and kind,” said Chris Bourg. “She had a quick smile that few of us will ever forget.”

What's New



Photo
Jia Spiggle

Photographic Archive Comes to MIT

The Aga Khan Documentation Center (AKDC) at MIT is now the home of the Kamil and Rifat Chadirji Photographic Archive. Kamil Chadirji played a central role in the political life of Iraq as founder and President of the National Democratic Party, a position that allowed him unique opportunities to take photographs throughout Iraq. Kamil's son, Rifat Chadirji, known as one of the most influential Iraqi architects of the 20th century, was also an accomplished photographer, author, teacher, and critic. Together, their vast collection spans more than five decades and contains approximately 100,000 negatives and images documenting the Middle East, primarily Iraq.

The collection illustrates daily life, cultural engagement, and social conditions in the Middle East from the 1920s to the 1970s. This important record also provides a unique look at the significant transformation of Baghdad's built environment over time. The entire collection has been given to the AKDC through a gift from the Chadirji family. As with all archives given to AKDC, the collection will be digitized and made available to scholars, students, and researchers at the center and via the research portal *archnet.org*.

New Art and Furniture Refresh Library Spaces

The Libraries have been working with the MIT List Visual Art Center to select and install a variety of works from the List collection that create a more inclusive environment in library spaces. Twenty works have been hung in Hayden Library, including a series of photographic portraits of jazz artists by Herb Snitzer, a photograph from the Doc Edgerton collection, a woodcut depicting Toni Morrison, and many more photographs, prints, and paintings, including abstract work. A series of photographs was installed around the perimeter of Barker Library's fifth floor; the 20 black-and-white photographs provide a snapshot of life at MIT in 1986, capturing people at work across the Institute. The Libraries will continue to work with the List to install artwork in additional library spaces.

New furniture in Hayden Library is also helping to create more comfortable, flexible study spaces. The center mezzanines of the first and second floors have been outfitted with a variety of desks and comfortable seating which users are welcome to rearrange to suit their needs.

Libraries Show Longstanding Support for Diversity in Library and Archives Workforce

What began in 2010 as a meet-and-greet event for students and MIT Libraries staff has evolved into an enduring partnership with the Association of Research Libraries (ARL) to increase diversity within the profession. In February, the Libraries marked nine years of official sponsorship of the ARL Leadership Symposium; its participants include master of library and information science (MLIS) students from ARL's diversity recruitment programs, the Initiative to Recruit a Diverse Workforce, and the ARL/Society of American Archivists Mosaic Program, and undergraduate students from the Fellowship for Digital and Inclusive Excellence.

Over the years, MIT staff have participated in several of the symposium sessions, served as resume reviewers for the job search skills portion of the program, and sponsored an evening social event every year. The reception is one of few opportunities that the scholars have as a full group to get to know one another. "It's a tremendous commitment that [the Libraries] have made," says ARL Diversity Programs Director Mark Puente. "What it adds to our events is truly invaluable."



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