

MIT Libraries Liaison Program: A Paradigm Shift

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The information ecosystem in which research, scholarship, teaching, and learning unfold has been fundamentally disrupted by digital technologies. At the same time, urgent global challenges propel innovations in research methods and spur progress toward universal, global education. In a knowledge economy, solving global problems, translating research results into practice, and achieving universal global education all take place within the disrupted, rapidly evolving information ecosystem.

The MIT Libraries stand with other mission-driven social institutions at the center of this transition—aiming to guide future development of scholarly communications and the broader information ecosystem based on principles of openness, social justice, diversity, and inclusion. We are determined to help reshape the information ecosystem so that it fosters, rather than hinders, our planet’s urgent needs for expanded and inclusive education, research, access to information, and publishing—inclusiveness that accurately reflects and involves the many voices and perspectives on the human condition.

To help shape the new information ecosystem, the MIT Libraries envisions “a world where enduring, abundant, equitable, and meaningful access to information serves to empower and inspire humanity.”¹ Both the MIT

Libraries’ strategic priorities and the recommendations in the Future of Libraries Task Force report² identify future directions:

“The MIT liaison program is initiating a paradigm shift...”

- the development of globally interoperable knowledge platforms;
- re-thinking library collections and scholarly communications;
- new kinds of collaboration and partnerships in support of digital scholarship;
- addressing grand challenges through research in scholarly communications and information science; and
- promoting teaching and learning that support the MIT community in both navigating as well as influencing the information ecosystem.

The MIT liaison program is initiating a paradigm shift in response to both the external forces changing research, scholarship, and teaching and learning, as well as the directions set for the MIT Libraries by the Future of Libraries Task Force report.

We will need to change much of what we do and how we do it. Across the MIT Libraries, the changes in one department or unit will both affect and be affected by changes happening in other units. Synchronizing with others and ensuring resources for this collective change is a core part of the paradigm shift in the liaison program.

Our paradigm shift is a work-in-progress, and this paper describes our thinking so far.

What Does and What Doesn't Change

Liaisons—because of their subject expertise, relationships, and institutional knowledge—play a crucial role in advancing the MIT teaching, research, and learning mission overall. Those core functions will remain, as will the central tenet of liaison work: to make information and knowledge usable.

The paradigm shift in these core functions comes from a new understanding of what it is for information and knowledge to be optimally usable in a digitally networked world. Many of our current

services were designed around a print paradigm, and need to be redesigned in light of changing contexts.

The paradigm shift also comes from considering who the usable information is for—global social justice demands that we think differently than we have in the past about the people who create, share, and use knowledge and information.

Discovery services provide a good example. Discovery, as all liaisons know, is mighty challenging. Difficulties include:

- business models in which various systems do not play well together and where users are confronted by many stand-alone search interfaces;
- systems that have privileged only some types, sources, formats and descriptions of information;
- relevant research spread across many languages;
- complexity derived from storing and describing geographically dispersed physical objects; and
- our hybrid world in which it is hard to mesh the properties of print and digital information for users.

The difficulty in just **finding** information has made reference work, library instruction, and consultations a vital part of liaison work. Shifting liaison work toward fixing the broken or inadequate parts of the system still puts liaisons at the center of helping users find and access relevant information. Through design and the affordances of technology, liaisons can help improve future discovery in powerful ways that reach well beyond some of the limits we currently face in making liaison expertise available.

Below are a few additional hypothetical examples about optimizing the use of information that begin to suggest how MIT liaisons' work will align with future library directions:

- Rather than searching for and reading single journal articles on a topic, many users want to engage with research materials computationally. If some of the discovery assistance that liaisons typically provide can be improved upon via technology, liaisons can shift some efforts towards assisting users with tools to manipulate and analyze information.
- As researchers rely ever more heavily on data or resources that are outside licensed or purchased library collections, liaisons are well positioned to develop systematic observations about what researchers use and how they use it. Liaisons will have a new role, yet to be fully defined, in helping the library incorporate these resources into a global, open-platform model, a model in which library collections are more porously understood as extending beyond what is purchased or licensed for local use.
- With a global, open-platform model, many customized interfaces can be layered on top of digital library collections. These interfaces, sometimes co-designed with users, can optimize access to specialized subsets of information or locally-produced descriptions of local information. Again, liaisons may be key intermediaries in understanding user perspectives and promoting more fair or technically improved discovery practices.
- Across all disciplines, researchers at MIT are engaged in making the world a better place by working with local communities to understand problems and find solutions. These researchers see themselves as co-designers with their global partners and therefore increasingly require that relevant information and data be accessible to their community partners. Meeting this challenge will require ongoing effort and advocacy from liaisons, as research moves from an exclusionary ecosystem to a more open one. Working with research teams, liaisons can help ensure that information is not just available to communities, but is usable by them, in ways that respect cultural norms, available technologies, local information practices, and other features that affect access.
- With researchers becoming increasingly vocal around

information ecosystem issues such as privacy, social justice and big data, internet governance, and the like, library instruction may increasingly take shape as a program aimed at amplifying and extending the ability of community members to influence the way the information ecosystem works.

Liaisons and the Changing Paradigm for Collections—The Role of the Selector

Because selection of library materials has traditionally been a core responsibility of liaison work, it is perhaps the most high profile area in which liaison work will shift.

As described above, the context for the proposed changes in the selector/liaison role is nothing less than a technology-driven revolution in scholarly communication, comparable in significance and impact to that which occurred with the invention of the printing press in the 15th century. Greg Eow, associate director for collections in the MIT Libraries, reflected in May 2017 on the massive changes in scholarly communication that we are a part of, and how we will evolve to embrace these changes in service to our community—and the world:

It's no secret that the world of scholarly communications is in tumult unseen in half a millennium. We often talk about how we will transform global scholarly communications toward more openness, and the way we will do it is this: rather than libraries being a constellation of organizations that purchase paywalled content for a community of local users (outside-in collections), libraries will instead become an interlinked network of organizations that capture the research output of their institutions and openly distribute this content to the global community (inside-out collections). That is how we flip scholarly communications.³

This call for the libraries' teaching and outreach staff to support our community in these expanded ways reflects trends that exist

“...the MIT Libraries should be a trusted vehicle for disseminating MIT research to the world.”

well beyond MIT. Indeed, many voices echo Greg’s, including those of Lorcan Dempsey, Susan Gibbons, and David Lewis. These experts and scholars have been articulating the challenges

of the transformation of scholarly communications in the digital age for libraries, and have suggested that in this new context, universities should focus newly on making their own research and scholarship available.

Changes in the Role of the University Library and Selectors/Liaisons in the Digital Age

Lorcan Dempsey, in analyzing the impact of the digital environment on information access and the library role, has conceptualized the key shift: that university libraries need to move towards “inside-out” collections—collections of their own output and uniquely held materials.⁴ Susan Gibbons has summarized this thinking:

From the inside-out, who if not us will manage the research and other outputs of our universities? Is this not a reconceptualization of university archives? And if not us, do we just open the door for others, whether it’s Elsevier or other vendors, to step into that place because we have failed to do so?⁵

Mirroring this call for universities to focus on their own outputs, the MIT Task Force on the Future of Libraries report calls upon the libraries to collect and share MIT’s outputs: “In support of the MIT mission and values of openness and service, the MIT Libraries should be a trusted vehicle for disseminating MIT research to the world.”⁶

The report acknowledges that the MIT Libraries have—and will continue to have—a role in purchasing and making available tools,

services and products: “As an educational center, the MIT Libraries will collect and license the best tools and content, making them readily available and usable by the MIT community, and will offer training in their use to students, staff, and faculty.”⁷ But in the same context, the report clearly calls for the libraries to “serve as an open, authoritative, long-term repository for MIT-created content and its associated metadata.”⁸ To make room for this emphasis, our selection processes for commercial content will need to be more automated and streamlined and the focus of selectors needs to move towards selecting and acquiring MIT’s own output.

To achieve these transformative aims, we envision a paradigm shift in the liaison-selector role—moving away from transactional and commercially focused work towards efforts focused on MIT’s output and unique collections. This shift will take time—and we are just at the beginning of the journey.

Goals for Collections Work—Summary of Shifting Direction

Overall we expect a new focus of selection efforts on “inside-out” collections, with selectors engaged early in the research life cycle, and identifying which research outputs at MIT should be acquired, stored, described, and preserved.

The specifics of how this shift is carried out will vary by discipline, but overall and in general we anticipate:

New emphasis on:

- Discovering and helping to acquire inside-out collections
- Influencing collections processes that are more automated and centralized

Less emphasis on:

- Selecting commercially available materials title-by-title
- Working on the mechanics of transactionally based collections workflows

Overall the shift is:

- Moving away from widely distributed transactional approaches to more centralized and automated selection of commercial collections
- Reallocating selector time, which will allow us to grow into new and significant kinds of selection that are focused on more unique and MIT-produced materials, particularly in the growing digital scholarship and digital assets space
- Moving toward selection and outreach roles that will need to be even more collaborative and functionally team-based, working more deeply and routinely with colleagues in libraries units that focus on data, scholarly communications and collections, archives and special collections, and technology
- Leveraging synergies between the increased emphasis in the outreach role towards community engagement, including contributing to the vision of an open, global platform for sharing MIT's outputs, and participating in more information ecosystem programming and outreach—Examples of this kind of engagement could include raising awareness and catalyzing conversations with MIT students and researchers on topics such as intellectual property, data privacy, and open access, and what is at stake for members of our community as consumers, creators, and influencers in the digital information ecosphere.
- Continuing to leverage and value our strong skills in assessing and purchasing commercially available (“outside-in”) materials for our collections, to meet our community's needs—And we will need to do this in a context of assertively and actively assessing the quality of these collections and how they meet users' needs:

balancing the aims of building and maintaining these outside-in collections with fostering access to MIT's unique collections and research outputs, and open access to science and scholarship, all in support of MIT's mission and MIT's current needs.

Success Scenarios, Uncertainties, and Road Maps for Instruction, Reference, and Outreach

In addition to selection work aligning with library priorities in new ways, there are some likely milestones on the road map shifting liaison work in the areas of instruction, reference, and outreach.

Instruction Changes

- A libraries-wide internal structure for this work—one that recognizes that staff across the libraries teach—and more libraries-wide focus on critical pedagogies, teaching in context, and instructional design
- A program that identifies outcomes and objectives around helping the MIT community to influence the information ecosystem, and that undertakes assessment to measure progress and impact
- A likely reframing of much of the instruction program around participation in campus learning communities, as opposed to experts offering a “service” of information skills instruction
- Actively developing a framework for balancing the range of teaching we do, including procedural (e.g., how to use a complex database), tactical (e.g., how to manage intellectual property), and ethical (e.g., how to engage in information ecosystem issues).

An example that speaks to the above points follows:

As on other campuses, researchers at MIT passionately engage in vital information-ecosystem issues, and one of the ways the instruction program at MIT will change is in joining with and amplifying these

user-led efforts. A recent conference held at MIT—Data for Black Lives⁹—highlighted many ways in which big data can help or harm people of color. We are just beginning to understand these issues, and staff from very different parts of the library are joining existing groups and communities already conducting research in this field and sharing best practices. Our relationships and growing knowledge will serve to support and amplify this effort, perhaps through supporting future conferences and workshops led by others, joining research teams, changing the way data are represented or discovered in library systems, or other outputs. Efforts like this will be at the heart of the library’s teaching and learning program.

Functioning effectively in a learning community requires a whole new skill set compared to the considerable skills liaisons have acquired for handling one-shot sessions and the many other kinds of teaching we are currently engaged in. As we are able to shift from helping users navigate an overly complicated and somewhat broken information ecosystem to helping users make informed decisions as creators, consumers, and influencers in the information ecosystem, we will be shifting much of our pedagogy from “sage on the stage” toward joining learning communities.

Reference Changes

- A staffing structure that recognizes the many types of expertise needed to effectively offer a service that ranges from interlibrary loan questions to requests to modify the institutional repository to advising on strategies for compiling complex data sets
- Technologies that transcend physical geography, and allow liaisons to interact with users seamlessly and effectively from any location—we have many channels for “remote” connection, and we are striving for processes and platforms that can make our virtual connections the equal of our face-to-face interactions.
- Computational means to help questioners find answers or locate experts—users express information needs in classrooms, in lab

groups, on email lists, and in many other venues. Gathering these expressions into the fold of reference help is part of the success scenario.

Liaisons have in-depth knowledge of how user communities work, share information, and support each other, and that knowledge is essential in designing systems that gather the kinds of questions and needs users have.

Clearly, the need for expertise and interpersonal skills involved in knowing how to answer questions and provide research assistance within disciplinary and interdisciplinary contexts will not diminish. The new skills needed from liaisons will be around working effectively in multiple virtual environments, and contributing systematic institutional knowledge toward service design for diverse user communities. To contribute toward service design, liaisons will need to better understand the business analysis work of the library. As the MIT Libraries systematizes the information we have about users from multiple sources, one of the challenges ahead is determining how best to feed liaison knowledge of user communities into the process.

Outreach Changes

- Defining outreach priorities—outreach can and does encompass everything from marketing library services to supporting faculty teaching and research to staffing shifts at orientation events. Given library-wide stakeholders for these activities carried out by liaisons, prioritization will necessitate library-wide conversations and decisions.
- A robust process for making decisions on library commitments to support the projects and community needs that continually surface as a result of outreach—while we pay homage to partnerships and collaborations, in reality, liaisons need much more robust tools to support anything other than fairly limited collaborative work. Most substantive partnerships require

cross-unit support from the library, and liaisons who are poised to engage this way will need an efficient and widely agreed on process to identify, vet, commit to, and support collaborations and partnerships.

- Tools to represent the variability among liaison constituencies and reveal the choices and impact of liaisons' outreach work—liaisons struggle with the question of how to balance demands on their time and focus. There's always more that could be done. Liaisons need tools that reveal their understanding of the complexity of their landscapes, the outreach choices they are making, and the areas where they hope to have the most impact. We have started to experiment with different kinds of landscape maps to visually represent these opportunities and choices.

We have traditionally relied on liaisons to use their judgment about outreach, based on the asymmetry of institutional knowledge—they know their user communities best. At the same time, we strive for ways to ensure that our allocation of effort is aligned with library priorities.

Moving from anecdotal observations and “I know my users” to more systematic ways of researching user needs has been a skills approach of the last decade. Increasingly, outreach work is moving away from the realm of “small business owner,” in which each liaison either individually serves their constituencies or cobbles together temporary support from colleagues. More sustained and complex collaborations and partnerships require different skills in exploring, vetting, and shepherding project proposals toward library commitments.

Project management and portfolio management—not just within liaison programs, but library-wide—are also essential. Familiarity with complex processes like service design has become important. Not all liaisons will engage in service design, but all will need to understand and respect the complexity of committing the library to sustainable service models. And working on larger teams has brought forward the importance of developing functional expertise and working effectively

with colleagues who have different roles and expertise—whether that is learning science, data management, intellectual property, licensing negotiations, coding, text and data mining, assessment, data visualization, or some other emerging form of functional expertise. Success will require highly cross-functional, team-based approaches and will need to draw upon experts in scholarly communications, digital preservation, archiving, and other areas in the libraries.

The Last Word: Change

Reframing the work of liaisons takes place within the larger changes happening across the MIT Libraries and globally in education, research, and scholarship.

Change won't happen overnight and some of it will be more gradual than abrupt. Still, we don't underplay the enormity of the changes we are facing. Seeing ourselves as part of global learning communities and committing ourselves to addressing the inequities of the information ecosystem have always been part of library values; foregrounding these concerns in a transformed landscape requires a paradigm shift in how we think broadly about the liaison and selector role.

As the research environment and the teaching and learning landscape shift, we know the means we use to accomplish our work must also change. Our ability to make effective use of new methods, new technologies, design skills, and team structures is essential to our success. We will advance our learning together, as an organization, and collaboratively with other organizations on the same path.

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Moving along the path we describe here will require innovation, education, communication, and collaboration at bold new levels. We

are ready, and we hope to learn from—and partner with—many others who are sharing this journey.

Endnotes

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