

ISSUE BRIEF

What's a Collection Anyway?

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Introduction: Collections at the Heart of Academic Libraries

In 1953, Kenneth J. Braugh stated that the mission of Harvard's library was to collect and preserve everything.¹ Those days are long gone. For the last couple of decades, given the rapid expansion of scholarly content sources and types, even the best-funded research libraries have become cognizant that a comprehensive collection is an unattainable vision.² Nevertheless, many research library mission statements continue to give prominence to their role in making the world's knowledge accessible to a wide range of user groups by acquiring, organizing, preserving, and delivering resources and assisting users in their effective use. Beyond the libraries at large research-intensive institutions, the mission statements of academic libraries of all sizes and budgets also often emphasize their role in collecting and making accessible information in a variety of formats in anticipation of users' current and future needs.³ In the face of pressure to offer additional services aligned with current and emergent research and teaching goals, it is becoming harder and harder to increase funding for collections. According to a 2018 report, almost two-thirds of academic libraries report flat budgets that fund numerous activities beyond the collection, including new services in web development, repositories, research data services, learning systems, digital humanities, research workflow support, open access, and digital media production.⁴

Historically, collections have been pivotal in defining how libraries organize their services. During the last two decades, advances in information and communication technologies coupled with new research, pedagogical, publishing, and financial patterns have ushered in significant changes to the nature of library collections, services, and facilities. The scholarly record is becoming much more heterogeneous, variable, dynamic, and distributed.⁵ Nonetheless, regardless of libraries' rebranding efforts, academic libraries continue to be closely associated with their collections. But in an

¹ Peggy Johnson, *Fundamentals of Collection Development and Management* (Chicago: American Library Association, 2004), 7.

² One of the reviewers of this brief pointed out that while separate libraries may not want to commit to comprehensiveness, some library clusters do touch upon such language.

³ For examples, see the mission statements of Santa Monica College (<http://www.smc.edu/AcademicAffairs/Library/Pages/Library-Mission-Statement.aspx>) and Boston College (<https://libguides.bc.edu/mission>).

⁴ For a recent update on budgetary trends, see: American Library Association, *The State of America's Libraries 2018: A Report from the American Library Association*, Kathy S. Rosa, ed. 2018, page 8. <http://www.ala.org/news/sites/ala.org.news/files/content/2018-soal-report-final.pdf>. With the increasing budget pressures and the blurring boundaries between different services, some libraries are starting to use their collection budget to cover staff costs associated with related programs such as preservation and digitization. For a discussion of how libraries are shifting the selector roles to functional specialists to focus on open access, research data, intellectual property as reliance on approval plans, demand driven access at the network level, see: Annette Day & John Novak, "The Subject Specialist is Dead. Long Live the Subject Specialist!" *Collection Management*, 2019, 1-14, <http://dx.doi.org/10.1080/01462679.2019.1573708>.

⁵ Brian Lavoie, Eric Childress, Ricky Erway, Ixchel Faniel, Constance Malpas, Jennifer Schaffner, and Titia van der Werf, *The Evolving Scholarly Record* (Dublin, Ohio: OCLC Research, 2014), <https://doi.org/10.25333/C3763V>.

increasingly networked, distributed, and licensed environment, how do we define the library collection? What do collections imply? What is involved in building a collection? The purpose of this brief is to survey the evolving nature of collections and to highlight some of the factors contributing to this change and their impact on the notion of collections.

Changes to the Collections Landscape

Vision for Comprehensive Collections

Libraries have been dealing with both declining budgets and an information deluge for quite some time and, recognizing that the vision of a comprehensive collection is not feasible, have looked for collaborative approaches. Initiated in 1942, the Farmington Plan was implemented by US research libraries to ensure access to research materials regardless of disruptive events such as war and to advocate for collaborative collection development around foreign materials.⁶ In the early 1980s, the Research Libraries Group (RLG, which became part of OCLC in 2006) and its members pioneered the Conspectus concept as an infrastructure for distributed and collaborative collection development.⁷ It was envisioned as a framework for creating an inventory of the distinctive strengths of research libraries in order to inform collection development strategies. However, it lost its prominence as a collection assessment tool in the early 1990s just as it was starting to be adopted by other countries.⁸

As libraries determined that autonomous comprehensive collections were unrealistic, they began discussing how to revamp collection development methodologies.⁹ Starting in the early 1990s, research library collections thought-leaders such as Dan Hazen and Ross Atkinson advocated closer collaboration and questioned prevailing collection development strategies. In a 2003 article, Atkinson cautioned against the solely subject-based selection methodologies, viewing them as an impediment to collaboration. He recommended integrating subject and functional approaches based on programmatic and user-centered domains such as instruction and primary research.¹⁰

⁶ The Plan started declining in the 1960s due to the new trends in international publishing and was phased out in 1972. For additional information about the Farmington plan, see https://en.wikipedia.org/wiki/Farmington_Plan.

⁷ RLG Conspectus: <https://www.oclc.org/research/activities/conspectus.html>.

⁸ One of the reviewers of a draft version of this brief pointed out, "the conspectus while a phantom in libraries is still very much there in the heart of the logistical system which feed the libraries as well as in consortia platforms of the future."

⁹ Peggy Johnson, *Fundamentals of Collection Development and Management* (Chicago: American Library Association, 2004), 7.

¹⁰ Ross Atkinson, "Old Forms, New Forms: The Challenge of Collection Development," *College and Research Libraries* 50, no. 5 (1989), https://www.ideals.illinois.edu/bitstream/handle/2142/41166/crl_50_05_507_opt.pdf?sequenc.

Research Libraries as Stewards of Cultural Heritage

Historically, libraries selected, purchased, stored, and preserved content relevant to their constituents, fulfilling their stewardship role and ensuring access for future generations. Up until the mid-1990s, preservation activities centered around stacks/storage management, conservation, and reformatting using facsimile and microfilming techniques. Gradually, the preservation scope started to broaden due to two factors. First, digital imaging was introduced as a reformatting method for fragile content and as a potential substitute for microfilming or facsimile.¹¹ Right around this time, the creation and dissemination of digital content started to accelerate with the influx of born-digital publications. The research libraries' preservation activities started to evolve and expand, influenced by the burgeoning digital collections and their lifecycle management requirements. With the emergence of preservation services like CLOCKSS and Portico, the library community recognized the need to approach its preservation mission at a collaborative and networked level beyond individual institutional programs.¹²

As digital information is increasingly licensed, distributed, and networked, academic libraries are no longer perceived as the primary drivers and leaders in digital preservation.¹³ It is difficult to preserve content that is not “owned” or “controlled” by libraries. The traditional concept of locally-owned or controlled collections had provided libraries with a sense of direction about their long-term stewardship roles. As the boundaries blur, it is harder to connect and align the preservation mandate with these collections.¹⁴

Key Drivers of Change

Several factors have driven the changing concept of the collection as the scholarly communication landscape and user behavior have evolved, including:

¹¹ Stephen Chapman, Paul Conway, and Anne R. Kenney, *Digital Imaging and Preservation Microfilm: the Future of the Hybrid Approach for the Preservation of Brittle Books* (Washington, DC: Council on Library and Information Resources, 1999), <https://www.clir.org/pubs/archives/hybridintro/>.

¹² Lars Meyer, *Safeguarding Collections at the Dawn of the 21st Century* (Washington, DC: Association of Research Libraries, 2009), <https://www.arl.org/focus-areas/arl-academy/1682-safeguarding-collections-at-the-dawn-of-the-21st-century>.

¹³ Oya Y. Rieger, "The State of Digital Preservation in 2018: A Snapshot of Challenges and Gaps," *Ithaka S+R*, October 29, 2018, <https://doi.org/10.18665/sr.310626>.

¹⁴ One of the reviewers of a draft version of this brief pointed out that the stewardship role of research libraries endures as some libraries continue to rely on large research libraries when they make weeding decisions.

Access and discovery at scale

Over the last 25 years, we have shifted from an environment characterized by information scarcity with limited distribution channels to a landscape of information abundance involving a variety of networked resources, including open access resources. While there are disciplinary differences, most researchers prefer using search engines, academic networks, familiar databases, and peer networks to find and filter information, and the library catalog is no longer the primary point for discovering and accessing content.¹⁵ Also, related research indicates that researchers use the most convenient and readily available means to discover and obtain information rather than pursuing comprehensive search strategies.¹⁶

Shift from ownership to access arrangements

A 2017 analysis revealed that 37 percent of academic library materials budgets go to database subscriptions and electronic reference materials, followed by journals and serials at 23 percent, print books (22 percent), ebooks (11 percent), and media/streaming media (five percent).¹⁷ Between 60-70 percent of academic library materials budgets are spent on licensing ebooks, ejournals, databases, and other online content. Interlibrary loan services have been successful in supplementing library collections. Even well-resourced libraries such as Yale University Library are reporting that a quarter of all circulation transactions are facilitated through resource-sharing networks, and that the use of local collections is down by 33 percent over the past 15 years.¹⁸

¹⁵ Melissa Blankstein and Christine Wolff-Eisenberg, "Ithaka S+R US Faculty Survey 2018." *Ithaka S+R*, April 12 2019, <https://doi.org/10.18665/sr.311199>.

¹⁶ Carol Tenopir, Lisa Christian, and Jordan Kaufman, "Seeking, Reading, and Use of Scholarly Articles: An International Study of Perceptions and Behavior of Researchers," *Publications* 7, no. 1 (2019), <https://www.mdpi.com/2304-6775/7/1/18>.

¹⁷ Matt Enis, "LJ Study: Electronic Resources Continue Steady Gains in Academic Libraries," *Library Journal*, March 3, 2018, <https://www.libraryjournal.com/?detailStory=lj-study-electronic-resources-continue-steady-gains>

¹⁸ Since 2004, undergraduate circulation is down 46 percent, graduate student circulation is down 20 percent, and faculty circulation is down 31 percent. Only the resource sharing category (the collections loaned to other institutions through BorrowDirect and interlibrary loan) has risen since 2004, by 46 percent. Julie Linden, Sarah Tudesco, Daniel Dollar, "Collections as a Service: A Research Library's Perspective," *College & Research Libraries* 79 no 1 (Jan. 2018): 86, <https://crl.acrl.org/index.php/crl/article/view/16612>. Constance Malpas and Merrilee Proffitt, *The Transformation of Academic Library Collecting: A Synthesis of the Harvard Library's Hazen Memorial Symposium* (Dublin, OH: OCLC Research, 2017), <https://doi.org/10.25333/C3J04Z>.

Declining prominence of print collections

A 2017 study based on 82 million holdings in 212 libraries found that 42 percent of books had never circulated and that 75 percent had three or fewer circulations.¹⁹ In response to low use and concerns about the costs associated with maintaining underutilized print materials, libraries are moving print volumes from the stacks to remote storage facilities. As indicated by recent discussions about establishing a federation of shared print repositories, there is an increasing interest in moving to collective responsibility for access, long-term management, and preservation through partnerships and shared digital collections.²⁰

Growing emphasis on managing local and unique collections

In response to the new information ecology, Lorcan Dempsey, Constance Malpas, and Brian Lavoie have advocated a shift from building duplicative local collections of published materials to supporting the curation of unique institutional areas of specialization, such as special collections and research data (“inside-out-collections”).²¹ As Dempsey states, “a collection organized by network is no longer defined according to size or physical ownership by a single entity; instead, a network in this sense is constituted by a coordinated mix of local, external and collaborative services...assembled around user needs.”

Legacy Missions in Times of Change

Organizational Change and Assessment

If we look back at the library organizational structures from 25 years ago and compare them with today’s configurations, the modifications do not fully reflect the drastic changes in academic research and instructional practice that we have witnessed during the last decade. Although we have seen the emergence of new service models aligned with contemporary research workflows and information fluencies, many research libraries continue to be structured according to the lifecycle sequence of selecting,

¹⁹ Sustainable Collections Services, *SCS Monographs Index*, January, 2017, <https://www.oclc.org/en/sustainable-collections/resources.html>.

²⁰ Mike Garabedian and Bob Kieft, “Curating Collective Collections--Shared Print and the Book as Artifact,” *Against the Grain* 28, no. 1, 2018, <https://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=7296&context=atg>.

²¹ Lorcan Dempsey, Constance Malpas, and Brian Lavoie, “Collection Directions: The Evolution of Library Collections and Collecting,” *portal: Libraries and the Academy* 14, no. 3 (July 2014): 393-423. Also, see the OCLC report on the same topic at <https://www.oclc.org/content/dam/research/publications/library/2014/oclcresearch-collection-directions-preprint-2014.pdf>.

acquiring, and cataloging – still, that is, somewhat centered around the notion of a “collection.” There are a handful of libraries that are beginning to orient themselves towards a radical and comprehensive shift. For instance, MIT Libraries aims to rebrand itself as a content platform emphasizing that libraries should promote open science and ensure long-term management of scholarly archives. Structured as a nonprofit corporation, Atlanta University Center’s Robert W. Woodruff Library serves the nation’s largest consortium of historically black colleges and universities and has evolved into a model repository of information resources including an extensive archive of African American experiences.²² Some academic libraries have started to restructure their collection programs for better alignment with scholarly communication programs. For instance, over a period of three years, Tufts University restructured its collections department from traditional bibliographers to a department of scholarly communications & collections, to shift to an “inside-out- collection” strategy. Another example is provided by the Western Libraries’ organizational renewal initiative, which restructured their collection development program based on functional rather than disciplinary-based factors and unified many individual funds accordingly.²³

Libraries grapple with finding methodologies to make data-driven decisions to evaluate user satisfaction and to determine if they are effectively using their budgets. Metrics for collections continue to be based on holdings and costs partly because it is difficult to identify and assess outcomes that may be enabled by collections, such as teaching, research, and student success. While usage statistics shed light on resource usage patterns and cost per use, such data, in and of itself, cannot measure the value of resources and how they fulfill researchers’ current and future information needs. And libraries still rely on peer benchmarking data as an indication of their competitiveness and to attract new faculty and researchers.²⁴ It is not uncommon to hear library directors advocate for additional funds by showing how their collections budgets stack up against peers. Academic library expenditures for collection materials varies widely. The 2017 data show that library spending for collection materials average \$5.4 million for doctoral degree-granting institutions, \$700,000 for comprehensive degree-granting institutions, and \$490,000 for baccalaureate schools.²⁵ According to the 2014 figures, US academic

²² See Atlanta University Center Robert W. Woodruff Library, 2018 Library Report: [https://www.auctr.edu/files/2018-library-report-\(web\)-final.pdf](https://www.auctr.edu/files/2018-library-report-(web)-final.pdf).

²³ Western University Libraries (Ontario, Canada), *Organizational Renewal Initiative: Organizational Model and Structure*, 2017, <https://www.lib.uwo.ca/files/aboutwl/organizational-model-structure.pdf>.

²⁴ Deanna Marcum and Roger Schonfeld, “Driving With Data: A Roadmap for Evidence-Based Decision Making in Academic Libraries,” *Ithaka S+R*, May 2014, <https://doi.org/10.18665/sr.24857>.

²⁵ Association of College and Research Libraries (ACRL), *2017 ACRL Academic Library Trends and Statistics for Carnegie Classifications*, Association of Research Libraries, 2018.

libraries collectively spend \$2.8 billion on information resources.²⁶ This data often spurs debates about the need to leverage this significant collective investment beyond local constituents to support a network model.

Perpetual Access in the Age of Facilitated Collections

Lorcan Dempsey describes the facilitated collection as a coordinated mix of local, external, and collaborative services built around users' actual needs and behaviors, moving from a just-in-case to just-in-time information landscape.²⁷ This model conceptually resonates well; however, in practice, it is debatable whether it constitutes a new model for "building collections" or presents a new definition to characterize what collections entail. Academic library leaders are well aware of pressure points and the need for steady change; however, it is not easy to shift from long-established organizational structures, priorities, and values. They face the conundrum of needing to focus on meeting users' needs today, while they try to fulfill their role as stewards of our cultural and scholarly heritage for future generations. As Clay Shirky points out, "People are good at guessing what will be important in the future, but we are terrible at guessing what won't be."²⁸ How do we decide what is useful only for current users and will not be relevant for future generations given the difficulty in envisioning the research questions of the future? Or, what are we not collecting today that will be of great value in the future? It is difficult to shift to a "collections as a service" model with a focus on current research and pedagogical patterns without acknowledging this dilemma.

Many libraries feel the pressure to continue supporting both new modes of research and traditional scholarly inquiry patterns that are aligned with core library services. For example, print remains the dominant form for certain kinds of materials, especially for collections international in scope or in the humanities and arts. Faculty continue to prefer print books for many of their research and teaching activities, especially for long-form reading. Although younger faculty are relatively more likely to use e-books, they are also more inclined to believe that the library will need to carry on maintaining hard copy versions into the future.²⁹ Even if content is available in both print and digital formats, there may be no reliable archival strategy for enduring access for the digital version. Preservation responsibilities are increasingly decoupled from collections as curation-

²⁶American Library Association, *ALA Library Fact Sheet*, April 2015, <http://www.ala.org/tools/libfactsheets/alalibraryfactsheet04>.

²⁷ Lorcan Dempsey, "The Facilitated Collection," *OCLC*, January 2014, <http://orweblog.oclc.org/towards-the-facilitated-collection/>.

²⁸ Maria Bustillos, "Erasing History," *Columbia Journalism Review*, Winter 2018, https://www.cjr.org/special_report/microfilm-newspapers-media-digital.php.

²⁹ Melissa Blankstein and Christine Wolff-Eisenberg, "Ithaka S+R US Faculty Survey 2018," *Ithaka S+R*, April 2019. <https://doi.org/10.18665/sr.311199>.

based programs, including web archiving, research data, repositories, digital humanities, and special collections, are placed in different library units that do not share a common preservation mandate. As these services are increasingly carried out in different functional units, establishing active and systematic collaboration becomes even more critical to ensure the consideration of the entire lifecycle of scholarly resources.

Libraries as Warehouses of Information

Most academic libraries, and the faculty they support, still care about the depth and breadth of local library collections and see the facilitation of access to scholarly materials as a primary responsibility. The strong reputation libraries have built as central repositories of information and knowledge now is a double-edged sword. It is evident that faculty and administrators are much more familiar with what we consider traditional services than the new ones we are trying hard to market to illustrate our changing role. Regardless of the expansion of library services upstream to support early stages of scholarly workflows (such as research data plans or computational text analysis), libraries continue to be identified and branded by their collections. According to the 2018 Ithaka S+R U.S. Faculty survey--and in alignment with previous findings--the faculty view the library's ability to pay for the resources they need as its most important function.³⁰ As Rick Anderson contemplates shifting from building "commodity collections" (published scholarly resources) to making accessible primary sources (unique and rare materials), he is mindful that every library must strike the right balance between serving the broader world of scholarship with unique materials and supporting institutional academic activities that heavily rely on published materials.³¹ Libraries vary widely and reflect their unique institution so the balance must be sensitive to their distinctive portfolios of constituencies and their varied needs.

The strong reputation libraries have built as central repositories of information and knowledge now is a double-edged sword.

³⁰ Ibid.

³¹ Rick Anderson, "Can't Buy Us Love," *Ithaka S+R*, August 2013, https://sr.ithaka.org/wp-content/uploads/2013/08/SR_BriefingPaper_Anderson.pdf.

As the term “library” still brings to mind stacks, reading and visual materials, and study spaces, there are some efforts to redefine or refresh collection strategies. For example, the University of Southern California Libraries Collections Convergence Initiative aims to align the curation and use of primary-source collections with the practices and needs of faculty, researchers, artists, and students.³² Through the initiative, library curators, scholars, and creative practitioners will come together in more direct working relationships to advance research, particularly with primary sources. Through a Mellon Foundation grant, Arizona State University (ASU) is undertaking a project to reinvent the library’s practice for open-stack print collections and develop inclusive print collections that better reflect the user populations within ASU and its surrounding communities to engage, educate, and inspire various scholars and learners.³³ One of the strategic directions set by the University of Washington Libraries is to create, preserve, and enhance access to regional culturally relevant information resources to elevate the voices of historically underrepresented communities in support of inclusive research, learning, and working environments.³⁴

Vision for Collective Collections

A prevailing theme at the 2016 Hazen Symposium was the concept of a “collective collection” and the implications of this concept for managing research libraries’ collections in the context of *network logic*.³⁵ As one of the participants noted, due to the proliferation of multilateral collaborative agreements, libraries are working toward collectivity in a context of “radical scatter” as the information is diffuse, disorganized, and difficult to discover.³⁶ The emergence of the “collections as data” concept acknowledges that researchers are increasingly interested in accessing amalgamated

³² “USC Libraries, Launch Collections Convergence Initiative,” July 10, 2017, <https://libraries.usc.edu/article/usc-libraries-launch-collections-convergence-initiative>.

³³ Arizona State, University, “ASU Awarded \$380K Mellon Foundation Grant to Design and Develop Inclusive Library Print Collections,” January 2018, <https://asunow.asu.edu/20180109-asu-awarded-380k-mellon-foundation-grant-design-and-develop-inclusive-library-print>.

³⁴ University of Washington University Libraries, *2018-2021 Strategic Plan*, <http://www.lib.washington.edu/about/strategicplan>.

³⁵ In October 2016, the Hazen Symposium (Cambridge, MA) commemorated the career of Dan Hazen (1947–2015) who was a prominent leader in the world of research collections to reflect upon the transformation of academic library collections. Constance Malpas and Merrilee Proffitt, *The Transformation of Academic Library Collecting: A Synthesis of the Harvard Library’s Hazen Memorial Symposium* (Dublin, OH: OCLC Research, 2017), <https://doi.org/10.25333/C3J04Z>.

³⁶ *Ibid.*, p. 7. Also, see, John Wilkin, “Infrastructure for US Research and Scholarship,” *Joint JISC/CNI Conference, University of Oxford*, July 2016, <https://www.slideshare.net/JISC/closing-plenary-john-wilkin-and-david-maquire>.

collections in order to conduct various forms of computational research; this requires special computing, analysis tools, and expertise.³⁷

Librarians have been discussing the idea of building capacity through collaborations and consortia for a number of years.³⁸ Although collaboration is one of the strong values of library professionals, collaborations are often complicated and should not be seen as a panacea.³⁹ Lately, the concept of collective collections has been garnering great interest again. Although it is not a novel concept, the new attributes such as heavy reliance on digital content requires new approaches and value propositions. But significant issues must be ironed out, including governance and ownership models, preservation strategies, retention commitments, and incorporating such cooperative arrangements in discovery systems to support users, which is the end game.

Regardless of the attractiveness of a vision to create a broad network without institutional boundaries, many libraries feel pressured to focus on their own home institutions' priorities and needs and prove their importance and uniqueness to their senior leadership.

Collaborations are complicated and involve overhead. There are few studies that candidly evaluate different models to assess what's working and why, or that share problems and impediments. But there are several collaborations that could be instructive. For instance, the Ivy Plus Confederation, with participation from 13 libraries is designing collaboration strategies to create and maintain collective collections. A few years ago, Columbia and Cornell University Libraries, through the 2CUL initiative, envisioned a deep collaboration model that has registered limited success in coordinating area studies collecting. Libraries have a highly collaborative culture, but

³⁷ Thomas G. Padilla, "Collections as Data: Implications for Enclosure," *College & Research Libraries News* 79, no. 6 (2018). Also, see the Mellon-funded Collections as Data Project, which aims to foster the development of broadly viable models that support implementation and use of collections as data, <https://collectionsasdata.github.io/part2whole/cohort1/>.

³⁸ Roger C. Schonfeld, "Restructuring Library Collaboration: Strategy, Membership, Governance," *Ithaka S+R*, March 2019, <https://doi.org/10.18665/sr.311147>.

³⁹ Lorcan Dempsey, "What Collaboration Means to Me: Library Collaboration is Hard; Effective Collaboration is Harder," *Collaborative Librarianship*, 10, no. 4 (2018), <https://digitalcommons.du.edu/collaborativelibrarianship/vol10/iss4/3>.

they function under governance systems that are designed to be competitive as universities try to attract the best students, faculty, and researchers. Regardless of the attractiveness of a vision to create a broad network without institutional boundaries, many libraries feel pressured to focus on their own home institutions' priorities and needs and prove their importance and uniqueness to their senior leadership.⁴⁰ At the top of many academic libraries' strategic visions is contributing to their student and faculty success and to their university's efforts to improve student retention, timely degree completion, and diversity and inclusivity.⁴¹ On the other hand, for some small academic libraries that must provide a wide range of quality resources, collaboration is a necessity, not a choice.

A prerequisite for libraries to be able to shift from a local to a facilitated collection mentality is an assurance that they will collectively continue to meet the information needs of their users in a coordinated and transparent manner. In other words, it is difficult to rely on networked content unless there is confidence in the collective wisdom and ability to maintain a distributed and somewhat cohesive collection, especially for accessing published materials such as monographs and journals that continue to require institutional access arrangements.⁴² When all is said and done, libraries still have a responsibility to their own university users. Some libraries are deaccessioning a large number of print materials with an assumption that *some other institution* will maintain copies and make them accessible for their users. This challenge is also illustrated by the recent Big Deal cancellations and the expectation that cancelled resources can be supplied to users through interlibrary borrowing programs, shifting the costs to the libraries that opt to continue their licensing agreements.⁴³ When the University of California recently announced that it will not be signing a new contract with Elsevier, they recommended several alternative access methods including finding an open access copy, contacting an author to ask for a copy, and interlibrary loan. This is a striking example to illustrate how the notion of a facilitated collection can both reduce the prominence of libraries as critical content providers to their local constituents and at the

⁴⁰ As one of the reviews of this paper pointed out, these impulses conceptually are not necessarily in contradiction as coordinated collection models assign collection responsibilities according to participating institutions' areas of strength.

⁴¹ For instance, see the strategic goals of UC Santa Cruz University Library (https://guides.library.ucsc.edu/Strategic_Plan_Goals/student_experience), Cornell University Library (<https://www.library.cornell.edu/about/inside/strategic-priorities>), and Portland State University (<https://library.pdx.edu/about/strategic-plan/>).

⁴² Candace Arai Yano, Zuo-Jun Max Shen, and Stephen Chan, "Optimising the Number of Copies and Storage Protocols for Print Preservation of Research Journals," *International Journal of Production Research*, 51 (2013):23-24, 7456-7469, <https://doi.org/10.1080/00207543.2013.827810>.

⁴³ Roger Schonfeld, "Is the Value of the Big Deal in Decline?" *The Scholarly Kitchen*, March 7, 2019, <https://scholarlykitchen.sspnet.org/2019/03/07/value-big-deal-leakage/>.

same time strengthen them as they are able to stand up to large publishers by relying on an external network to meet their users' needs.

Open Access and Inside-Out-Collections

From a normative standpoint, the academic community has a desire to invest in the common infrastructure needed to create open tools, services, and repositories so that the academy can exercise more control over scholarly publishing.⁴⁴ There is a strong community drive to provide equitable and universal access to scholarly knowledge and cultural heritage without paywalls and to stand up to the ever-increasing licensing fees of Big Deals offered by commercial publishers. Uptake on OA publishing models and open educational resources requires that libraries divert some of their funds to support such programs. However, it is easier said than done. A burgeoning number of open access scholarly communication initiatives rely on business models that are heavily dependent on financial support from academic institutions and their libraries (e.g., arXiv, Directory of Open Access Repositories, and Open Library of Humanities). It is complicated to find ways to redirect a portion of collections budgets to fund open access initiatives and invest in a common infrastructure, especially in the absence of agreement about what constitutes such infrastructure and what it would take to accomplish such a vision.⁴⁵ This continues to be an active area of deliberation and complex terrain to investigate. Mapping the Scholarly Communications Infrastructure is one project that seeks to understand the current level of investment in the infrastructure necessary for digital scholarship, to document the attitudes about these sorts of investments, and to identify promising strategies for encouraging greater investment by colleges and universities.⁴⁶

Shifting to an open access collection strategy also requires structural changes. For instance, many institutional repository (IR) initiatives were motivated and driven by the OA movement, starting almost 15 years ago. But Clifford Lynch recommends that it is time to disconnect IRs from the OA agenda, and re-position them in the broader context of managing and preserving institutional assets.⁴⁷ Funder mandates are not pushing

⁴⁴ David W. Lewis, Lori Goetsch, Diane Graves, and Mike Roy, "Funding Community Controlled Open Infrastructure for Scholarly Communication: The 2.5% Commitment Initiative," *College and Research Libraries News* 79, no 3 (2018), <https://crln.acrl.org/index.php/crlnews/article/view/16902/18557>.

⁴⁵ David Lewis has raised the notion of a 2.5 percent library budget commitment to initiatives that contribute to the development of a common digital infrastructure, similar to a proposal previously articulated by Leslie Chan. David W. Lewis, "The 2.5% Commitment," Working Paper, September 11, 2017, <https://doi.org/10.7912/C2JD29>; Leslie Chan, "Transforming Global Knowledge Exchange: Reframing the Roles of the Libraries," <https://www.slideshare.net/lesliechan/chan-pre-ifla2010>.

⁴⁶ Mapping Scholarly Communications Infrastructure Project Website: <https://scholarlycommons.net/map-plan/>.

⁴⁷ Clifford Lynch, "Updating the Agenda for Academic Libraries and Scholarly Communications," *College & Research Libraries* 78(2), 2017, <https://doi.org/10.5860/crl.78.2.16577>.

scholars or publishers to populate IRs and institutional OA policies are complicated to implement. Kenning Arlitsch and Carl Grant describe another IR design flaw: academic libraries fail to leverage the network effect due to the fragmented environment of IRs, which are costly to develop, populate, and maintain.⁴⁸

As we consider an “inside-out” strategy (whether it is limited- or open access), it is essential to think at the network level, which requires giving up some local control and branding.

As we consider an “inside-out” strategy (whether it is limited- or open access), it is essential to think at the network level, which requires giving up some local control and branding. The availability of OA options has not significantly changed author behavior and the studies indicate that content is often manually deposited to IRs by library staff. A recent report out of the UK concludes that systems that support and implement OA at the institutional level are largely manual and resource-intensive.⁴⁹ There continues to be insufficient awareness and uptake by scholars and an increasing preference for using community-based systems such as subject repositories or academic social networks such as Academia.edu and ResearchGate.⁵⁰

Redefining Library Collection Programs

The academic library community recognizes the need to align local collection strategies with the mission and priorities of parent institutions to facilitate discovery and access and is engaged in thoughtful deliberations to chart a new course. Venues such as the Charleston Conference provide opportunities for rich exchanges of progressive reenvisioning.⁵¹ However, introducing and implementing a new collection paradigm is

⁴⁸ Kenning Arlitsch and Carl Grant, “Why So Many Repositories? Examining the Limitations and Possibilities of the Institutional Repositories Landscape,” *Journal of Library Administration* 58:3, 264-281, 2018, <https://doi.org/10.1080/01930826.2018.1436778>.

⁴⁹ Claire Fraser, Geoff Hill, Helen Snaith and Jade Taffs, “Monitoring Sector Progress Towards Compliance with Funder Open Access Policies,” *Research England*, 2018, <https://re.ukri.org/documents/2018/research-england-open-access-report-pdf/>.

⁵⁰ David M. Seaman. *Leading Across Boundaries: Collaborative Leadership and the Institutional repository in Research Universities and Liberal Arts Colleges* (Doctoral dissertation), Simmons College School of Library and Information Science, Boston, MA, 2017.

⁵¹ Charleston Conference: <https://www.charlestonlibraryconference.com/>.

challenging for a host of reasons including structural issues, ingrained expectations, and a reliance on incremental change strategies. The concept of a collection continues to be at the heart of cultural memory organizations such as libraries. Even as they increase their engagement and educational roles, their stewardship responsibilities remain key to the public good. However, the very nature of the collection has changed dramatically in recent decades. A more intentional effort to scope the library collection and recognize its boundaries today will enable improved strategic engagement with priorities such as preservation, discovery, and user support. How do we revamp and rebrand the concept of collections within the new information ecology? How do we characterize collections in order to articulate a modern library's enduring and new roles for its constituents? These are demanding questions that are beyond the purpose of this brief. However, here are some issues to consider as building blocks:

Envisioning new selection models and budget allocation: It is time to reevaluate the role of disciplinary specialization inherent in subject selector roles and the role of collection policies and how they contribute to strategic planning and communication efforts. What is the role of collection policies in this new world of scholarly resources? Increasing interdisciplinary and inter-institutional research collaborations, often extending beyond organizational and national boundaries, challenge well-established subject liaison/selector models, although interdisciplinarity continues to depend on strong disciplinary foundations. In certain cases, the current collection structures, with allocations to specific disciplines and subject domains, might help maintain a balanced investment in different disciplines; however, at the cost of fragmented budgets, especially if there is reliance on endowments with legacy conditions that do not reflect today's priorities and have not been kept up-to-date.

Transitioning organizational and staffing models: There is a new cadre of library positions in support of assessment, user experience, makerspaces, object-based learning, research data, visual resources, digital scholarship, and more. They often touch upon some aspects of the collection, raising questions about how they can be better aligned and optimized. On a related matter, differentiating between functional and subject liaison roles might present a dilemma--trying to split them risks silos whereas combining them might lead to excessive workloads and burnout. There are also a range of organization-related models to consider. For instance, given that a vast majority of collection funds are spent on licensing content, what are the advantages and disadvantages of seeing licensing as a business transaction and positioning it within a university service group that has expertise in negotiations and contracts? How could we more systematically align collections held at different cultural heritage organizations such as libraries, museums, archives, and community heritage centers to present them to users in a more cohesive way?

Investing in resource sharing services and systems: ILL services are shaping library collections and becoming a go-to mitigation strategy for cancelling subscriptions and decreasing print acquisitions. However, this service area may be taken for granted as it is not as forward-looking as other novel library services such as research data or makerspaces. ILL units are often small and underfunded.⁵² Also, should there be more intentionality in articulating the reliance on ILL in collection development policies? Document delivery services and access-on demand could also fill gaps and provide related data useful for collection decisions.

Envisioning collections vis-a-vis research workflow tools: Individual digital tools and services can bring great improvements to the researcher experience at almost every point in their daily workflow--from discovering relevant literature to managing citations, from capturing web pages as research data to analyzing them through online tools. Could collection programs be restructured to shift away from supporting specific academic programs and be seen instead become a research unit that takes into consideration the entire workflow, beyond discovery and access to content? As Roger Schonfeld asks, "if individual researchers determine that seamlessness is valuable to them, will they in turn license access to a complete end-to-end service for themselves or on behalf of their lab?"⁵³ The skill sets required are within the reach of library staff; however, the challenge is developing a service framework with reliable funding, technical infrastructure, and collaborative framework.

Implementing risk assessment and mitigation: As library positions such as collection analysts and strategists emerge, libraries are embracing a data-driven approach to strategic planning and assessing value and impact. As Thomas Hyry reminded the audience during the Hazen Memorial Symposium, archival science is not all about saving; understanding and managing loss is equally important.⁵⁴ Given the data deluge and the unachievable vision of building comprehensive collections (even if one focuses merely on unique institutional content), it is critical that the academic library community embrace strategies that will help it understand what *not to collect* and explore the consequences of not collection on current and future scholarship.

⁵² Beth B. Posner, "Introduction to Library Information and Resource Sharing," in B. Posner (ed.), *Library Information and Resource Sharing: Transforming Services and Collections* (Santa Barbara, CA: Libraries Unlimited, 2017), 1-14.

⁵³ Roger C. Schonfeld, "Big Deal: Should Universities Outsource More Core Research Infrastructure?" *Ithaka S+R*, 4 January 2018, <https://doi.org/10.18665/sr.306032>. Lorcan Dempsey, "Library Collections in the Life of the User: Two Directions," *LIBER Quarterly*, 2016, 26(4), 338-359, <http://doi.org/10.18352/lq.10170>.

⁵⁴ Constance Malpas and Merrilee Proffitt, *The Transformation of Academic Library Collecting: A Synthesis of the Harvard Library's Hazen Memorial Symposium* (Dublin, Ohio: OCLC Research, 2017), <https://doi.org/10.25333/C3J04Z>.

Assuming value-driven collection policies: Given the decreasing role of libraries in the discovery and access realm and the rapidly expanding universe of diverse information resources, one strategic approach for libraries to consider is enhancing their value-driven curation strategies for creating, preserving, and enhancing access to historically underrepresented communities in support of inclusive research, learning and working environments. Another important shift is investing in curation programs that support social justice and strengthening partnerships with community archives.⁵⁵ Investing in projects such as the Mukurtu initiative will empower communities to manage, share, and exchange their digital heritage in a way that fosters respectful and trustful partnerships.⁵⁶

Integrating systematic business planning methodologies: Libraries as not-for-profit entities take great pride in being mission-driven. However, regardless of their financial models and motivations, all organizations rely on revenue to operate and would benefit from developing and implementing business models. This will help cultural heritage institutions plan sustainable access to their assets and link their missions to planning models, especially when moving from grant-funded, one-time projects to long-term programs that provide products or services.⁵⁷ As a common tool, a strategic plan provides vision, focus, and direction whereas a business plan outlines a structured action plan for creating assessing value.

Assuming a functional approach to collections: Viewing collections from a lens of functional responsibilities can facilitate the development of more intentional services.⁵⁸ For instance, print monographs (whether owned by individual libraries or through collaborative agreements) need to be selected, purchased, cataloged, discovered, circulated, stored, loaned, and preserved. E-monographs will be selected, licensed, and indexed for discovery and access. Libraries should also consider long-term access and preservation issues and ensure that the content is archived by a reliable third party service such as CLOCKSS, Portico, or a local consortium. Whereas acquiring or licensing

⁵⁵ Jules Bergis, "Architecting Sustainable Futures: Exploring Funding Models in Community-Based Archives," *Shift Design*, February 2019, <https://drive.google.com/file/d/1FpOjXzCLiRsd7nBT271C6xHhwE00dx/view>.

⁵⁶ Mukurtu is an open source platform built with Indigenous communities to manage and share digital cultural heritage. As a grassroots project, it aims to empower communities to manage and share their heritage in culturally relevant and ethically-minded ways. See <https://mukurtu.org/>.

⁵⁷ This guide on business planning was created specifically for cultural heritage institutions: Liz Bishoff and Nancy Allen, "Business Planning for Cultural Heritage Institutions," *Council on Library and Information Resources*, 2004. See also: Nancy L. Maron, Sarah Pickle, and Deanna Marcum, "Searching for Sustainability: Strategies from Eight Digitized Special Collections," *Ithaka S+R*, 20 November 2013, <https://doi.org/10.18665/sr.22647>; and Nancy L. Maron and Sarah Pickle, "Sustaining the Digital Humanities: Host Institution Support Beyond the Start-up Phase" *Ithaka S+R*, 18 June 2014, <https://doi.org/10.18665/sr.22548>.

⁵⁸ Thanks to my Ithaka S+R colleague Roger Schonfeld for suggesting this approach.

data sets require that libraries take into consideration how such content will be accessed and used through specialized software and expertise (such as text mining applications).

Responding to the trends in information, technologies, and scholarly patterns, academic libraries are evolving as they have started to shift to a facilitated collection model for some time. However, for most organizations, it has been a gradual and spontaneous shift along a continuum rather than a fundamental comprehensive restructuring based on a long-term strategic vision. Due to the incremental and often reactionary pace of change, it is difficult to implement overarching functional and organizational changes that are required to shift the entire organization into a different service model. It is complicated to shift funds to new priorities and invest in new skill sets in a systematic way while libraries are still feeling the pressure to sustain core functions such as technical services, circulation, and reference desk.

Even if we conclude that there is no longer a collection as originally conceptualized, there is still a need for developing cohesive strategies within individual libraries to ensure that they are investing in resources whether they are owned, licensed, streamed, shared, or borrowed in a systematic manner, balancing user needs with their stewardship role.

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