

Sustaining Art Research Collections:

Using Data to Explore Collaboration

Brian Lavoie, Dennis Massie, Chela Scott Weber

Sustaining Art Research Collections: Using Data to Explore Collaboration

Brian Lavoie

Senior Research Scientist

Dennis Massie

Senior Program Officer

Chela Scott Weber

Senior Program Officer

Foreword by Jon Evans

Chief of Libraries and Archives, Museum of Fine Arts, Houston



© 2023 OCLC.

This work is licensed under a Creative Commons Attribution 4.0 International License.
<http://creativecommons.org/licenses/by/4.0/>



February 2023

OCLC Research
Dublin, Ohio 43017 USA
www.oclc.org

ISBN: 978-1-55653-276-4

DOI: 10.25333/v636-pe98

OCLC Control Number: 1369792864

ORCID iDs

Brian Lavoie, OCLC Research  <https://orcid.org/0000-0002-7173-8753>

Dennis Massie, OCLC Research  <https://orcid.org/0000-0002-5662-0714>

Chela Scott Weber, OCLC Research  <https://orcid.org/0000-0002-6358-5128>

Please direct correspondence to:

OCLC Research
oclcresearch@oclc.org

Suggested citation:

Lavoie, Brian, Dennis Massie, and Chela Scott Weber. 2023. *Sustaining Art Research Collections: Using Data to Explore Collaboration*. With a foreword by Jon Evans. Dublin, OH: OCLC Research.
<https://doi.org/10.25333/v636-pe98>.

CONTENTS

Foreword	vii
Executive Summary	ix
Introduction	1
Operationalizing the art research collective collection	1
About the report	2
Collective Collection Analysis	3
Exploring partnerships with collective collection analysis	3
Building the proxy art research collective collection	3
A note on data and methods	5
Features of the proxy art research collective collection	6
Types of materials.....	8
Age profile.....	10
Diversity of materials	11
Subjects in the collection.....	12
Holdings patterns	16
Comparison to the Art Discovery Group Catalogue	19
Visualizing the network of art research-supporting institutions	21
Proxy group members and co-collectors	22
Categorizing co-collectors: academic and public libraries.....	24
A closer look at geographic proximity.....	26
Resource Sharing Activity Analysis	28
Sharing the art research collective collection.....	28
Patterns in partner selection and request type	29

Characteristics of the materials shared	30
Sharing of special material categories	31
Sharing of e-formats	32
Sharing analyzed by Library of Congress Classification classes	32
Characteristics of frequent collection sharing partners	34
Proxy group member status	34
Geographic proximity	34
Lender response time	35
Formal resource sharing agreements	37
Borrowing items already owned by the borrower	37
Unfilled requests	38
Takeaways for Art Research Library Collaboration.....	39
Art libraries bring unique contributions to partnerships.....	39
Art libraries should seek collaborative opportunities strategically	40
Art libraries should be innovative in their approach to collaboration	41
Art library partnerships can help steward collections more efficiently.....	41
Art library partnerships improve access to art research materials.....	41
Final thoughts.....	42
Acknowledgments.....	43
Appendix: Proxy Group	45
Notes.....	48

FIGURES

FIGURE 1	Levels of representation in WorldCat	6
FIGURE 2	Proxy art research collective collection: size and total holdings	7
FIGURE 3	Distribution of material types in the proxy collective collection	9
FIGURE 4	Age profile of the proxy collective collection.	10
FIGURE 5	Countries of origin in the proxy collective collection	11
FIGURE 6	Languages of content in the proxy collective collection.	12
FIGURE 7	Holdings overlap in the proxy collective collection.	16
FIGURE 8	Holdings overlap in the proxy collective collection (WorldCat context).	17
FIGURE 9	Holdings overlap (special categories of materials).....	18
FIGURE 10	Art Discovery Group Catalogue collective collection (size and holdings)	19
FIGURE 11	Overlap between the ADGC and proxy collective collections.	20
FIGURE 12	Locations of proxy group members.	22
FIGURE 13	Locations of co-collectors (50,000 holdings overlap threshold).	23
FIGURE 14	Locations of proxy group members and academic library co-collectors.....	24
FIGURE 15	Locations of proxy group members and public library co-collectors.....	25
FIGURE 16	Regional view of proxy group members and academic library co-collectors.....	26
FIGURE 17	Regional view of proxy group members and public library co-collectors.....	27
FIGURE 18	Proxy group ILL activity on the OCLC network	29
FIGURE 19	Impact of the pandemic on sharing of original vs. copies	30
FIGURE 20	Filled ILL requests by distance between partners.	35

TABLES

TABLE 1	Special categories of art research materials in the proxy collection.	9
TABLE 2	Most widely held subjects in the proxy collective collection.	13
TABLE 3	Sample of subjects with about 5,000 holdings.....	14
TABLE 4	Most common subjects in publications held by more than 10 group members.....	15
TABLE 5	Special material categories collected vs. shared by art research libraries.	31
TABLE 6	Top 10 Library of Congress subclassifications shared.	33
TABLE 7	Lender response times.	36

FOREWORD

Libraries have long defined their status by the size of their collections as a means of measuring themselves against their peers and as a symbol of prestige. While this metric remains a viable indicator of distinction, it is but one of a number of standards by which we determine value in research centers today, including patrons served, online resources accessed, digital resources hosted, resources shared, and initiatives supported, not to mention subscriptions, online resources, hours of operation, staffing levels, and budgets.

Virtually all of these can be readily quantified, making them easy for administrations to analyze and compare. Less easy to tabulate are the soft qualities that information centers bring to play in serving and supporting researchers. One such area is collaboration and the benefits it can provide. Collaboration is often difficult, demanding, and time intensive. Notably, cross-institutional collaborations add an extra layer of complexity given differing institutional cultures that often combine varying financial means and staffing levels. So, why pursue them? Simply put, these types of initiatives most commonly arise when the strategic benefits and financial imperatives outweigh the challenges inherent in group undertakings.

The impetus for the Operationalizing the Art Research Collective Collection (OpArt) project arose out of discussions in 2019 centered on the increasing financial strains and spatial demands of managing ever-expanding physical collections, the duplication of effort to house these collections, and the desire to find local and regional means to share these burdens. It was clear that while many art research libraries are confronting these challenges, solutions to address them require an approach that goes beyond the local. These concerns were no doubt exacerbated by the COVID-19 pandemic. While the *Report of the ARLIS/NA Presidential Task Force on Art Libraries and COVID-19** was inconclusive due to a low response rate, it is evident that many art libraries and their parent institutions are experiencing significant stresses that impact staffing, collections, and financial stability.

Consequently, the desire to identify collaborative models within the art information field was deemed even more urgent and prompted an exploration that would allow art libraries of different sizes and scales to better understand how and where they might benefit from such models. Certain high-profile examples of collaboration exist within the field, such as the New York Art Resources Consortium (NYARC). But they have yet to fully address print storage, collection sharing, and other collaborative solutions to support the needs of art libraries.

Meanwhile, the broader academic library community has made strong inroads over the past few decades in developing regional models for shared print storage, such as the Western Regional Storage Trust (WEST), the University of California's Northern and Southern Regional Library

* ARLIS/NA Presidential Task Force on Art Libraries and COVID-19. 2022. *Report of the ARLIS/NA Presidential Task Force on Art Libraries and COVID-19: 2020-2022*. Westford, MA: Art Libraries Society of North America. https://assets.noviams.com/novi-file-uploads/arlisna/pdfs-and-documents/research_and_reports/Report_of_the_ARLIS_NA_Presidential_Task_Force_on_Art_Libraries_and_COVID-19.pdf.

Facilities, the Tri-University Annex based in Toronto, the western Canadian COPPUL Shared Print Archive Network (SPAN), and the Five College Library Repository Collection (FCLRC) situated in the northeastern United States. Research addressing the prospect of shifts from locally centered collections to regionally consolidated repositories have been undertaken by OCLC in 2011 for their report *Cloud-Sourcing Research Collections: Managing Print in the Mass-Digitized Library Environment*,* as well as their 2013 analysis *Understanding the Collective Collection: Towards a System-Wide Perspective on Library Print Collections*.†

The report in hand builds upon these earlier studies by employing analysis of collective collection and resource sharing data to identify patterns in art library collections that may point the way toward valuable collaborative opportunities. This will provide a baseline from which art libraries can think about how they might work with other institutions to create sustainable long-term collection management and sharing partnerships that will benefit researchers and institutions alike. No doubt a lofty goal, but a challenge worth pursuing in order to strategically position art libraries for a future where resources may indeed be more limited, but where leadership, unity, and creativity may be the best possible antidote.

Jon Evans

Chief of Libraries and Archives
Museum of Fine Arts, Houston

* Malpas, Constance. 2011. *Cloud-Sourcing Research Collections: Managing Print in the Mass-Digitized Library Environment*. Dublin OH: OCLC Research. (Archived) <https://library.oclc.org/digital/collection/p267701coll27/id/459/rec/8>.

† Dempsey, Lorcan, Brian Lavoie, Constance Malpas, Lynn Silipigni Connaway, Roger C. Schonfeld, JD Shipengrover, and Günter Waibel. 2013. *Understanding the Collective Collection: Towards a System-Wide Perspective on Library Print Collections*. Dublin OH: OCLC Research. <https://doi.org/10.25333/E94Q-9Q39>.

EXECUTIVE SUMMARY

Art libraries provide vital support to art scholarship within their own institutions and in the broader scholarly community. As art libraries face challenges from an evolving environment, repercussions from the COVID-19 pandemic, and static or diminishing resources, finding sustainable pathways forward becomes an increasing priority. And an important option for art research collections in achieving long-term sustainability is collaboration.

This report explores opportunities for collaboration between art, academic, and independent research libraries and models how quantitative analysis of library collection and activity data could be used as evidence to support decision-making about collaborative opportunities. It is intended to help support art libraries and their leaders in the ongoing stewardship and availability of art research resources.

The report uses two approaches:

- **Collective collection analysis**—An examination of bibliographic data of a collective art research collection in the US and Canada. It offers a high-level overview of this collective collection’s characteristics and models how collection analysis can inform partnership decisions.
- **Resource sharing activity analysis**—An examination of data from resource sharing transactions involving art libraries to better understand how these partnerships work and explore opportunities for other kinds of collaboration.

These analyses provide insight into the current state of the network of libraries supporting art research in the US and Canada, highlight the unique value art libraries can bring to partnerships, and point to possible future collaborative efforts around building, stewarding, and sharing art research collections.

Findings

In our explorations of the features of the art research collective collection and resource sharing activity involving art libraries, we identified several factors that might signal prospective value in collaborative efforts. Considering how these factors manifest (or do not) in a possible partnership between an art library and other institutions is a helpful step toward making a strategic decision on whether to pursue it.

In reviewing our analysis, several major themes emerged that help shape a framework for thinking about collection-based collaborative opportunities to successfully and sustainably support art research.

Art libraries bring unique contributions to partnerships

The specialized nature of art research collections is central to the value art libraries can offer partners, both through the collections themselves and the expertise of the art librarians who work with them. Our collection analysis illustrates the unique strengths of art research libraries. Collections are rich in holdings on both broad and specialized art subjects and include formats like artist files and exhibition catalogs that are relatively unique to art library collections, and valuable for art research.

Art libraries should seek collaborative opportunities strategically

The work in this report makes clear the potential for valuable collaborations between art libraries and other institutions. It also points to how quantitative analysis of collection and resource sharing data can help to inform selection of collaborative opportunities that offer the greatest potential benefit to all partners. Understanding the collection complementarities and differences of prospective partners and evaluating them in the context of institutional priorities is an important tool for art libraries as they make strategic choices among collaborative opportunities and partners.

Art libraries should be innovative in their approach to collaboration

It is worth reexamining traditional notions of “how things should work” when considering potential collaborations. For example, in a print-centric world, distance might have been an important factor in weighing the value of a partnership, but a shift to sharing via scanning or e-formats might make distance matter less. Similarly, while art libraries might have traditionally sought to partner with peer institutions, the interdisciplinary nature of art research raises interesting possibilities for new kinds of partnerships with institutions outside the art library community.

Art library partnerships can help steward collections more efficiently

Art libraries share collecting priorities and challenges, suggesting opportunities for collective effort to coordinate collecting activities, address stewardship needs, and increase collection visibility and accessibility. Our collections and interlibrary loan analyses both indicate a heavy reliance on books for art research, making cooperative print management a key area to explore when considering prospective partnerships. The significant holdings of specialized art research materials like auction catalogs, artist files, and exhibition catalogs, along with the known challenges of managing them, suggests collaborative opportunities between art libraries to more efficiently manage these special categories of materials.

Art library partnerships improve access to art research materials

Art libraries specialize in art-related subjects, but these subjects are often contextualized by non-art-focused topics collected heavily by institutions outside the art library community. Collaborations between art libraries and other types of collecting institutions that improve access to this wide range of materials directly supports the interdisciplinary nature of art research. Sharing patterns indicate a need for access to complementary rather than similar collections. This is a clear indication that specialized art research libraries are seeking to expand the universe of materials to which their patrons have access and are already partnering with other types of libraries in order to do so.

INTRODUCTION

Art libraries provide vital support to art scholarship within their own institutions and in the broader scholarly community. But art libraries face challenges from an evolving environment—conditions that, in many cases, have been accelerated by enduring repercussions from the COVID-19 pandemic and complicated by static or diminishing resources.¹ As the impact from both long-standing issues and more recent environmental changes is felt, finding sustainable pathways forward becomes a matter of increasing priority. An important option for art research collections in achieving long-term sustainability is collaboration.

Collaboration can be a powerful strategy but only when it is fit to purpose. The recent OCLC Research report *Library Collaboration as a Strategic Choice: Evaluating Options for Acquiring Capacity* observes that, “[l]ibrary collaboration, in the form of multi-institutional effort to acquire needed capacity, is a choice. The decision to collaborate can yield distinct benefits, but not without an often-significant investment of effort, attention, and resources.”² Any such choice should be entered into after careful consideration of institutional needs, priorities, capacities, and alignment with potential partners, and a clear-eyed understanding of the likely benefits and trade-offs the partnership will entail.

The unique profile of art research libraries and their role in the scholarly ecosystem means that they will have a distinctive set of considerations for evaluating collaboration opportunities and partnership value. This report examines the factors impacting art research library collaboration to help support art libraries and their leaders in the ongoing stewardship and availability of art research resources.

OPERATIONALIZING THE ART RESEARCH COLLECTIVE COLLECTION

The concept for this report originated in a 2019 discussion³ of challenges facing art research libraries between members of the OCLC Research Library Partnership (RLP).⁴ The issues identified by the RLP include:

- An acute lack of space at art research libraries
- Difficulties in arranging for off-site storage of art research print collections
- A lack of knowledge regarding the library collections of peer institutions
- The perceived value of art libraries partnering with other types of libraries on the shared management of print collections

These conversations inspired Operationalizing the Art Research Collective Collection, a four-phase research project exploring opportunities for collaboration between art, academic, and independent research libraries. The project is designed to identify new possibilities for collaboration and partnership models that support sustainable, ongoing availability of the rich collections of art libraries to researchers, wherever they may be.

The four project phases include:

- **Analyze Collective Collections:** Examine the features of the art research collective collection to model how collection analysis can help identify opportunities for cooperation and articulate the value art research libraries bring to potential partnerships.
- **Analyze Collection Sharing Patterns:** Identify patterns in resource sharing activity across art libraries and between art libraries and other library types. Analyze factors that drive current art research sharing practices and might inform future partnerships.
- **Explore Collaborative Case Studies:** Gather insights and lessons about the operational challenges, benefits, and practicalities of collaboration via case studies of art research library participation in partnerships and consortia.
- **Operationalize Collaboration:** Synthesize findings from the first three phases to identify strategies, models, and recommendations that art libraries can use to envision and operationalize partnerships.

Understanding the opportunities, challenges, and potential strategies for cooperation between art, academic, and independent research libraries can help illuminate new collaborative models to support the continued availability of the art research collective collection. This project aims to help art libraries identify opportunities for beneficial partnerships around their collections, build effective collaborative structures to support these partnerships, and navigate the practical challenges involved in making collaborations sustainable.

ABOUT THE REPORT

This report is the first of two documenting the findings from the Operationalizing the Art Research Collective Collection project. This first report models how quantitative analysis of library collection and activity data could be used as evidence to support decision-making about collaborative opportunities. It uses two approaches:

- **Collective collection analysis**—Part one of this report analyzes bibliographic data of a collective art research collection in the US and Canada. It offers a high-level overview of this collective collection's characteristics and models how collection analysis can inform partnership decisions.
- **Resource sharing activity analysis**—Part two examines data from resource sharing transactions involving art libraries to better understand how these partnerships work and explore opportunities for other kinds of collaboration.

Taken together, these analyses provide insight into the current state of the network of libraries supporting art research in the US and Canada, highlight the unique value that art libraries can bring to partnerships, and point to possible future collaborative efforts around building, stewarding, and sharing art research collections. Evaluating potential partnerships requires information about strengths, needs, and opportunities for one's own institution and prospective partners. The findings presented here show how quantitative analysis can be leveraged by library leaders to inform decisions about collaboration opportunities supporting art research collections.

A second report sharing advice for collaborations drawn from our qualitative analysis of case study interviews will be released in 2023 and will further the discussion of collaborative opportunities that this report explores.

Collective Collection Analysis

Exploring partnerships with collective collection analysis

Collaborations usually form based on a perceived chance to create value through collective effort. One method that art research libraries can use to identify and assess potential partnerships is collective collection analysis. Lavoie et al. define a collective collection as “the combined collections of two or more institutions, viewed as a single, distinct resource, usually through aggregation and analysis of metadata about the collections.”⁵ Collective collection analysis gathers data-driven evidence about the aggregated holdings of institutions to identify how collaborative efforts can fill gaps, eliminate redundancy, or otherwise create value around collections.

Analysis of collective collections helps uncover the size and characteristics of a group of institutions’ collective holdings, and also the degree of uniqueness or similarity across the individual collections in the group. Data of this kind can shed light on the collective strengths of the group’s combined holdings, the comparative strengths of individual group members’ collections, and areas of duplicative collecting across the group. From this, one can identify strengths and needs of potential partners and opportunities for collaboration, coordination, and sharing across collections.

Our focus is the art research collective collection in the US and Canada, which we define as the collective holdings of institutions in these countries that explicitly or implicitly support art research with their collections. In practice, the boundaries of the art research collective collection cannot be defined precisely. It is too difficult, if not impossible, to enumerate all materials that could potentially be relevant for art research, and by extension, all institutions that hold these materials in their collection. The key point, however, is that at least notionally, there is a corpus of materials supporting art research that is spread across the collections of many institutions.

Building the proxy art research collective collection

Given that the art research collective collection is necessarily an abstraction, we cannot analyze it in its entirety by identifying all the relevant materials and all the relevant institutions. We therefore constructed a *proxy* collection to perform our analysis, using WorldCat bibliographic and holdings data to illustrate our concept of the art research collective collection. This proxy collection consists of the combined holdings of a group of institutions in the US and Canada that explicitly support art research as part of their mission.

Intentional scoping was necessary to define the institutions included in the proxy group. The following parameters were used to select proxy group institutions:

- Limit institutions to the US and Canada to focus on a discrete geography where partnerships might take place. Analysis of other regions warrants separate studies to fully understand the context and special features of those areas.
- Exclude undergraduate liberal arts and fine arts institutions. These collections are likely too broad, including many holdings that do not focus on or support art research.

- Exclude single-artist museums, museums and libraries that focus solely on architecture, and botanical gardens as they are likely too specialized to reflect the overall art research collective collection.
- Exclude art libraries that catalog under the OCLC symbol of a larger, parent organization (e.g., the Marquand Library at Princeton). It is too difficult to separate art research-focused holdings from the holdings of the larger library system.
- Exclude commercial art galleries, as they are not likely to be collaborators with libraries and are unlikely to catalog in WorldCat.

To select the institutions that would comprise the proxy collection, we first identified all institutions known to the research team that fit our scoping criteria. The project advisory committee then reviewed the list of institutions and offered feedback and further suggestions. As a final step, we systematically reviewed listings of art libraries with holdings in WorldCat in all US states and Canadian provinces and territories. The websites for those libraries were then examined to see if their mission and collections aligned with our proxy scope, and through this process, additional institutions were added to the list. This last step was done to maximize the geographic representation of the proxy group across the US and Canada. The result was a list of 85 academic, independent, and museum libraries, seven in Canada and 78 in the US. A full list of institutions in the proxy group can be found in the [appendix](#).

Collective collection analysis of this proxy art research collective collection allows us to gain a better understanding of the types of material that are likely to be in the broader art research collective collection.

It should be emphasized that our proxy collection is not a statistically representative sample of the art research collective collection, but instead a tractable subset that we can define precisely and that will be useful for informing the central questions of our project. However, our selection efforts did work to ensure broad geographic representation across the US and Canada within the proxy group.

Collective collection analysis of this proxy art research collective collection allows us to gain a better understanding of the types of material that are likely to be in the broader art research collective collection. Given the materials in the proxy art research collective collection, we can identify institutions *outside* the proxy group that hold a significant portion of these same art research materials in their own collections. This helps us see a broader network of institutions outside of the proxy group whose collections could potentially be important contributors to the overall art research collective collection. This analysis develops a picture of the network of institutions that, through their collective holdings, create the collective collection on which

art research scholarship depends. The analysis can be extended to determine where these institutions are located, which helps visualize the network of institutions supporting the art research collective collection, and may help identify geographically proximate partners for collaborative effort.

In summary, analysis of the proxy art research collective collection is intended to:

- Envision what the broader art research collective collection looks like.
- Identify the network of institutions supporting the broader art research collective collection.
- Provide insight into how the features of the art research collective collection may shape opportunities for partnerships between institutions with a shared interest in supporting art research.

Please note that the analysis presented in this report is intended to be illustrative, not prescriptive. The purpose is to show how collective collection analysis can inform decision-making about collaborative partnerships for art libraries, but not to recommend specific partnerships for specific institutions. To accomplish the latter, a far more detailed analysis that would need to consider the context and priorities of the institutions involved would be necessary.

The analysis can be extended to determine where these institutions are located, which helps visualize the network of institutions supporting the art research collective collection, and may help identify geographically proximate partners for collaborative effort.

A note on data and methods

The findings reported in this study are based on a January 2022 snapshot of WorldCat, a database of information about library collections. The snapshot contains more than 500 million bibliographic records, and more than 3 billion global library holdings associated with the materials described in the records. Although WorldCat is the world's most comprehensive database about library collections, it is nevertheless subject to some caveats.

Not all library collections are registered in WorldCat, and those that are disproportionately represent North America. Art research libraries that are part of a university or other larger library systems will sometimes catalog using the OCLC symbol for the parent system. When this is the case, their data in WorldCat is impossible to separate for analysis from that of the full library system.

WorldCat data represents library collections at a series of levels—works, publications, and holdings—as illustrated in figure 1. A *work* is a distinct intellectual creation; a *publication* is a distinct edition or imprint of a work. A *holding* is an indicator that one or more copies of the publication are present in a particular library collection.

Levels of Representation in WorldCat

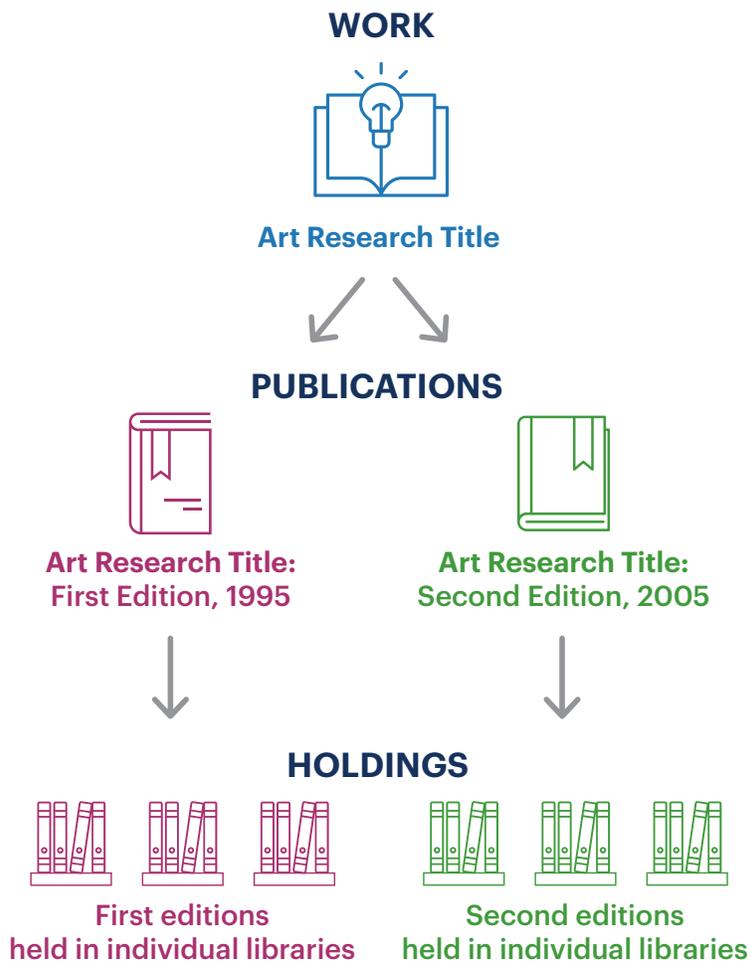


FIGURE 1. Levels of representation in WorldCat.

Our analysis focuses on publications as opposed to works. Using the examples in figure 1, both the first and second editions of *Art Research Title* would be counted as distinct publications in our analysis. The information represented in distinct publications of the same work can be important to scholarly research, thus we chose to use publications as our unit of analysis. Holdings of distinct publications are also discussed throughout the study.

Features of the proxy art research collective collection

This section offers a view of some of the general features of the proxy collective collection. In the context of limited and declining resources, art libraries are challenged to find ways to create new value for researchers while conserving those limited resources. The purpose of this analysis is to provide a descriptive portrait of a collective art research collection that illustrates the extensive collaborative opportunities possible between institutions both inside and outside of the art library community.

The combined holdings—accounting for about 16 million in total—of the 85 institutions selected for our proxy group form a collective collection of more than 8.5 million distinct publications (see figure 2). This is unquestionably a sizeable corpus of materials—if someone were to spend a single minute with each distinct publication, it would take about 16 years to work through the entire collection. And given the nature of the institutions included in the proxy group, we can infer that this extensive collection of resources is aligned with the interests of art researchers.

The Proxy Art Research Collective Collection (Size and Holdings)

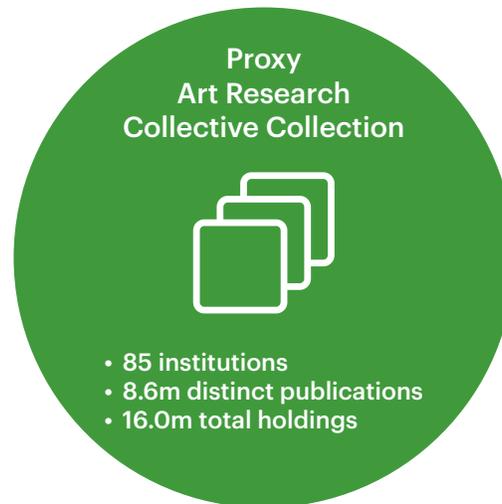


FIGURE 2. Proxy art research collective collection: size and total holdings.

Our analysis of the proxy art research collective collection touches on several general features that help deepen understanding of art research-focused holdings in US and Canadian institutions. Information about the following features are useful intelligence for identifying opportunities for inter-institutional, collection-based collaborations:

- Types of materials: What kinds of publications can be found in art research-focused collections?
- Age of materials: How are the publication dates of art research-related publications distributed over time?
- Diversity of materials: How does the content of art research-focused collections reflect the geographic and linguistic diversity of the published record?
- Subjects in collection: What subject areas are most prevalent in art research-focused collections?
- Holding patterns in collection: What degrees of uniqueness and duplication are found across art research-focused collections?

A key theme running throughout the analysis is the degree of uniqueness (or conversely, duplication) present across the various local collections that make up a collective collection: In other words, how much do the collections differ from or resemble one another in their features? The answer to this question often weighs heavily in determining the extent of collaborative opportunities linked to a collective collection.

TYPES OF MATERIALS

The types of materials present in a collection can help identify collecting priorities among the group members and ways to reduce redundancies and leverage local strengths. The proxy art research collective collection is a book-based collection, with the vast majority of the publications consisting of books or book-like objects (see figure 3). Yet there is a wide range of other MARC-defined material types included as well, such as films, theses and dissertations, music scores, musical recordings, maps, computer files, nonmusical recordings, and a long tail of other materials. Viewed from this very broad perspective, the proxy collection is probably indistinguishable from other research-focused collections.

The types of materials present in a collection can help identify collecting priorities among the group members and ways to reduce redundancies and leverage local strengths.

One finding from our analysis of the proxy collection material types is that 3.6 million publications, or 43 percent of the entire collection, consists of *e-books*, a term we use expansively to include licensed e-book content, digitized print books, and other monographic texts in electronic form. This is a significant proportion of the overall collection and may suggest an interesting property of art research collective collections. We note that 28 percent of the publications in this category have a MARC 533 field (Reproduction Note) in their corresponding bibliographic record, which suggests that these records describe digital reproductions of print materials. Of these digitized reproductions, 58 percent represent materials with a reproduction date that exceeds the original publication date by more than 50 years. This suggests that a substantial portion of the publications in the e-book category represent digitized reproductions of older, possibly historic print materials. Some additional discussion of the attributes of the materials in the e-book category is presented later in the report.

The long tail of “Other” material types, which encompasses over 325,000 distinct publications, inspires some curiosity and prompted a closer look at these materials. To get a sense of what the “Other” category contained, we inspected a small set of records randomly selected from this portion of the proxy collection. The results indicated that the majority of the records describe materials indexed in WorldCat as “archival materials,” and of these, most were artist files. Artist files—“[c]ollections of small-sized documents relating to the visual arts that are collected and arranged for the purposes of research”⁶—are a type of material of special interest to art research, and this finding led us to investigate further the presence of materials in the proxy collection that are relatively unique to art research scholarship and therefore likely a collecting priority for art libraries.

In consultation with the project advisory committee, we assembled a list of special categories of materials that are frequently collected by art libraries, as well as bibliographic criteria for identifying them in WorldCat records.⁷ It is useful to note that many of these material types are subcategories within the more general MARC-defined material types shown in figure 3 below.

Distribution of Material Types in the Proxy Collective Collection

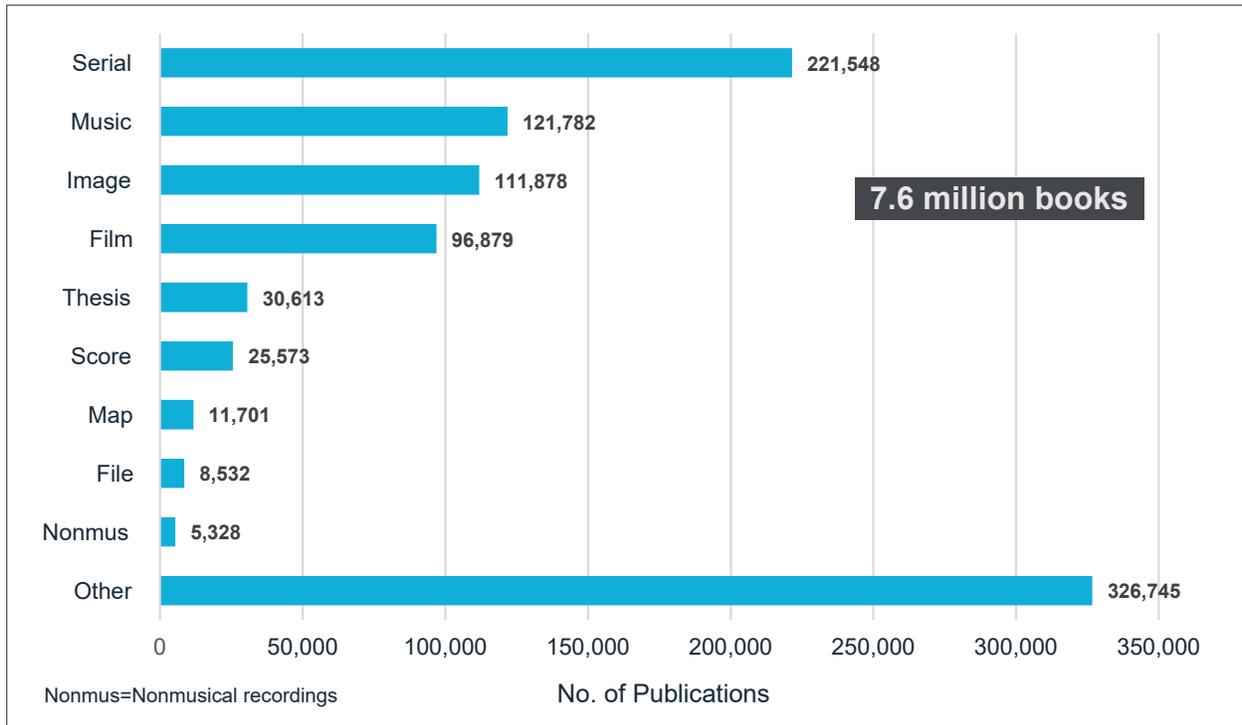


FIGURE 3. Distribution of material types in the proxy collective collection.

Table 1 lists the most frequently encountered types in the proxy collection. Exhibition catalogs, auction catalogs, and artist files lead the list, with exhibition catalogs accounting for nearly 700,000 publications in the proxy collection. An interesting finding pertains to the collecting of zines—a genre of self-published magazines—by the institutions in the proxy collection. Our advisory committee suggested that this may be an emerging focus of collecting activity for art libraries, and indeed, the evidence from our proxy collection supports this conjecture.

TABLE 1. Special categories of art research materials in the proxy collection.

Genre	Number of publications*
Exhibition catalogs	675,116
Auction catalogs	143,460
Artist files	129,550
Artists books	25,465
Trade catalogs	10,396
Catalogues raisonnés	8,968
Prints	5,212
Photo books	4,922
Zines	2,716

*Data from analysis of 655 field

Age Profile of the Proxy Collective Collection

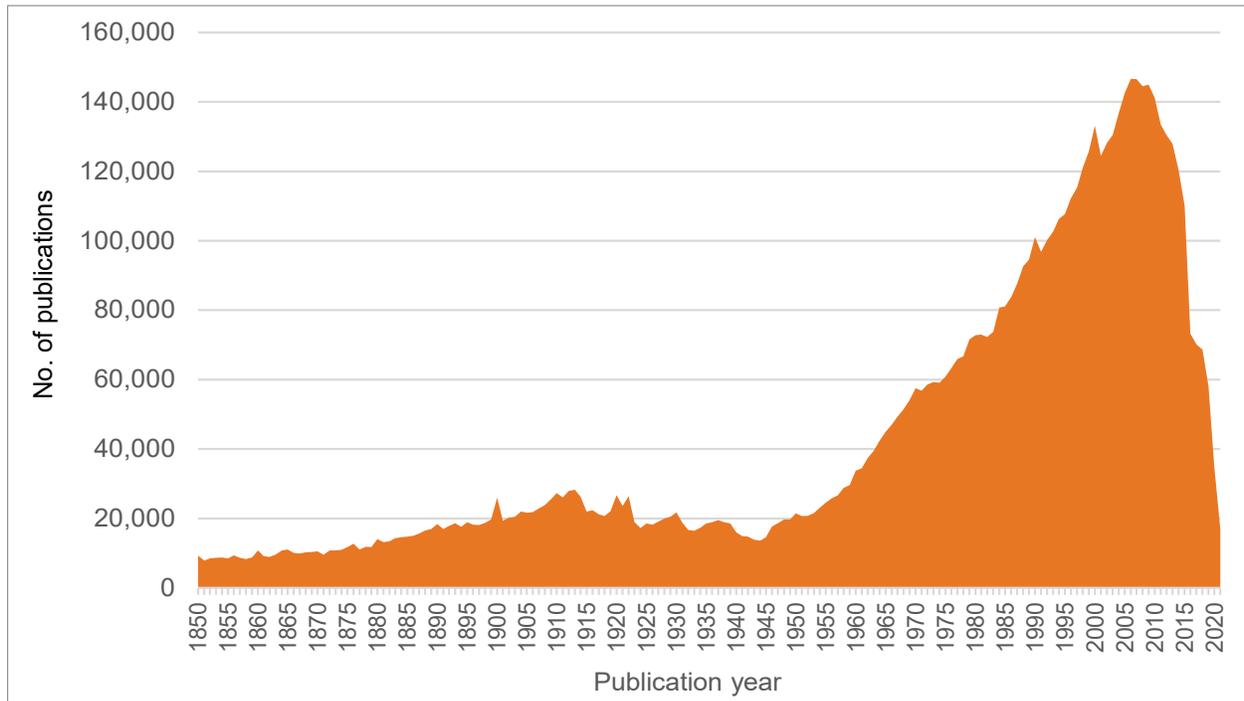


FIGURE 4. Age profile of the proxy collective collection.

AGE PROFILE

The relative age of the collective collection can inform thinking about opportunities for collaborative effort, both by assessing how “up to date” collecting efforts among the group seem to be, as well as possibly identifying historical and presumably valuable older materials. Figure 4 shows a profile of the relative age of the materials in the proxy art research collective collection, grouping the publications by publication date. It is worth mentioning that the evident drop-off in the number of publications for the years from roughly 2012 forward is probably indicative more of cataloging lag rather than collecting behaviors, although other factors, such as decreased funding, could play a role as well.

The relative age of the collective collection can inform thinking about opportunities for collaborative effort

The most obvious takeaway from figure 4 is that the majority of the collection consists of relatively recent materials—two-thirds of the proxy collection was published after 1945, more than half was published after 1975, and more than a quarter was published after 2000. However, there is also an extended long tail of older materials—some significantly older—that may warrant special stewardship efforts to increase their discoverability and accessibility to researchers—for example, through digitization.

Countries of Origin in the Proxy Collective Collection

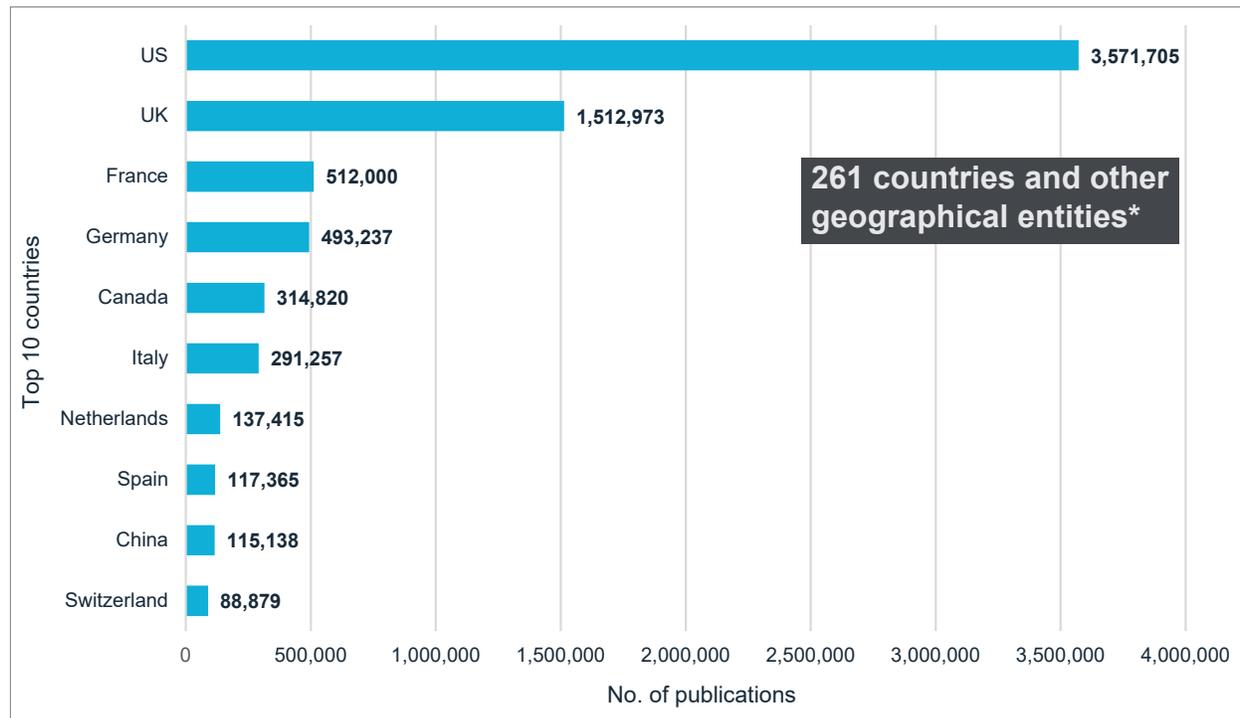


FIGURE 5. Countries of origin in the proxy collective collection. (*N= 261 countries, and other geographical entities assigned a MARC code.)

DIVERSITY OF MATERIALS

By bringing many local collections together into a collective collection through collaborative efforts, the diversity of materials available to art scholars can be expanded significantly. There are many ways to characterize the diversity in breadth and scope of the proxy art research collective collection. One is to document the wide range of countries that published the materials in the collection. As figure 5 shows, the US predominates here, likely as a consequence of all our institutions being either Canadian or American; publications from the UK, France, Germany, Canada, and Italy also appear with a relatively high frequency. But the materials in the proxy collection represent numerous other countries of publication as well: more than 260 different countries, territories, dependencies, and other entities assigned a unique MARC country code are represented.

By bringing many local collections together into a collective collection through collaborative efforts, the diversity of materials available to art scholars can be expanded significantly.

Figure 6 shows the distribution of languages of content in the collection. Unsurprisingly, English predominates, again likely a result of the location of our proxy group members. But as with countries of publication, many other languages are represented as well—in fact, the proxy collection includes content in over 370 different languages.

The ranking in figure 6 of most frequently appearing languages in the art research proxy collection interestingly differs slightly from similar rankings for general, or non-disciplinary-focused collective collections. For example, a recent study of the combined US and Canadian print book collective collection (including the holdings of all types of libraries) published in 2019 calculated that, in that collection, Italian ranked 7th (compared to 4th in the proxy collection), while Latin ranked 12th (compared to 9th in the proxy collection).⁸ It is difficult to determine the source of this difference, but the fact that the proxy collection consists of institutions with a focus on supporting art research suggests it is plausible that the difference in rankings for these languages could be attributed to more intensive collecting of materials related to the Italian Renaissance period, which was the setting for such notable figures as Leonardo, Michelangelo, and the architect Bramante.⁹

Languages of Content in the Proxy Collective Collection

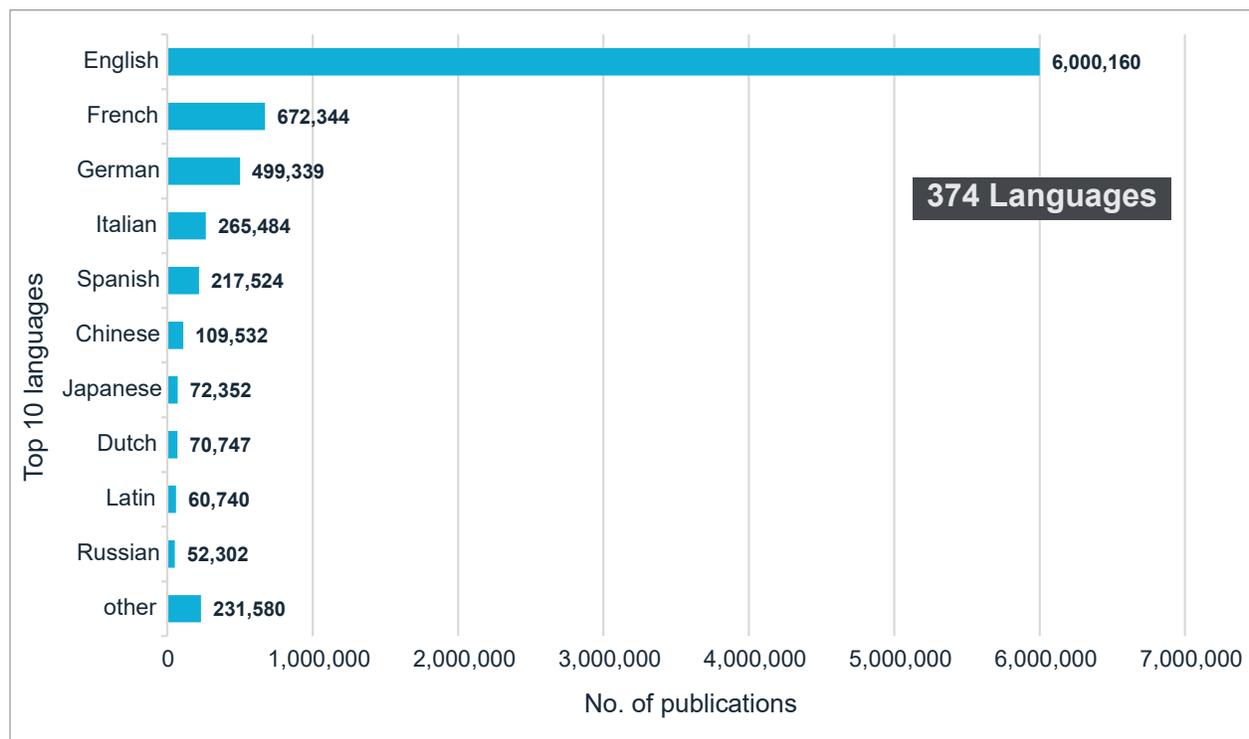


FIGURE 6. Languages of content in the proxy collective collection.

SUBJECTS IN THE COLLECTION

The subject diversity and strengths that appear when local collections are aggregated into a collective collection is an important signal of potential collaborations. Since the proxy art research collective collection is formed from the holdings of 85 institutions with a focus on supporting art research, one would expect its publications to reflect subjects of special interest to scholarship in that area. To explore the range of topics present in the proxy collective collection, as well as their relative weight in the collection, we conducted a simple subject analysis using Library of Congress Subject Headings (LCSH) extracted from the records describing the materials in the collection.¹⁰

Table 2 below shows the top 25 LCSH headings in the proxy art research collective collection, ranked by total holdings by proxy group members.

The results in table 2 emphatically demonstrate the specialized nature of the proxy collection in terms of its subject holdings. Notwithstanding a handful of exceptions, the 25 subject headings with the most holdings attached to them in the proxy collection are all clearly aligned with an art research focus, ranging from the expansive “Art” and “Architecture” headings to more granular subject areas such as “Decorative arts” and “Painting, Modern.” The more general subject headings appearing in the list, such as “English language” and “Women,” suggest important contextualization for the materials in the proxy collective collection.

TABLE 2. Most widely held subjects in the proxy collective collection.

Library of Congress Subject Heading	No. of Holdings in the Proxy Collection
Art	506,866
Architecture	306,944
Art, Modern	306,884
Photography, Artistic	237,036
Painting	188,791
Artists	162,254
Art, American	149,882
Indians of North America ¹¹	126,566
Photography	118,584
Painters	113,025
Painting, American	98,543
Drawing	87,335
Christian art and symbolism	84,133
Women	83,478
Decorative arts	76,766
English language	75,193
Painting, Modern	73,043
Excavations (Archaeology)	66,849
Art, Italian	64,901
Furniture	62,847
Architecture, Domestic	62,560
Decoration and ornament	61,434
City planning	61,046
Painting, Italian	60,579
Sculpture	60,492

While the widely held headings shown in table 2 illustrate the overall art research focus of the proxy collective collection, examining headings that account for relatively small numbers of holdings can provide some insight into more granular specializations within the collection. For example, consider the list in table 3 showing 25 subject headings that each account for approximately 5,000 holdings within the proxy group.

Examining the headings listed in table 3 provides some sense of the great diversity of subjects present in a collective collection with an art research focus. For example, headings like “Ceramic sculpture,” “Hand weaving,” and even “Toys” suggest the range of art-related specialties covered by the proxy collective collection. These topics may also hint at some of the institution-specific specializations found within the proxy group membership. In this sense, it is important to note that the pattern of granular subject-based specializations reflected in table 3 is likely unique to the 85 institutions selected for the proxy group; a different set of institutions would probably generate a different pattern of specializations.

TABLE 3. Sample of subjects with about 5,000 holdings.

Library of Congress Subject Heading	No. of Holdings in the Proxy Collection
Human beings in art	5,165
Refugees	5,161
Ceramic sculpture	5,160
Outdoor sculpture	5,155
Christian antiquities	5,149
Architecture, Roman	5,145
Research	5,135
Legends	5,134
Report writing	5,132
Monasteries	5,111
Orphans	5,109
Hand weaving	5,107
Needlework	5,107
Power (Social sciences)	5,103
Nature in art	5,090
Toys	5,090
Memory	5,057
Child development	5,054
Museum conservation methods	5,049
Cowboys	5,043
Prints, German	5,042
Muslims	5,022
Rites and ceremonies	5,018
Art, Polish	5,015
Art, Classical	5,007

Subject analysis of the proxy collective collection can also identify subject areas where collecting activity is concentrated among many proxy members, which can help establish shared collecting priorities of the proxy group. Table 4 shows the subject headings associated with the most holdings across the publications held by more than 10 proxy group members.

The results in table 4 offer insight into some of the heavily collected subjects within the proxy group. For example, “Painting, American” and “Sculpture” both rank highly in the overall list of widely held subjects (table 2); but they rank even higher when the ranking is confined to materials that are duplicated extensively across the collections in the group. This suggests that these are subjects that not only account for many holdings within the proxy collection, but also that these holdings are spread across a significant number of group members (as opposed to being concentrated within the collections of only a few members). This finding suggests there may be a core set of publications associated with these subjects that are commonly included in the collections of institutions supporting art research.

TABLE 4. Most common subjects in publications held by more than 10 group members.

Library of Congress Subject Heading	No. of Holdings in the Proxy Collection
Art	186,005
Art, Modern	118,135
Photography, Artistic	106,313
Painting	78,954
Art, American	77,422
Artists	65,564
Painting, American	54,563
Architecture	52,387
Painters	51,256
Photography	37,334
Drawing	36,353
Painting, Modern	31,090
Decorative arts	26,528
Sculpture	24,165
Painting, French	22,359
Prints	21,991
Decoration and ornament	21,953
Painting, Italian	21,528
Installations (Art)	21,145
Art and society	19,497
Portrait photography	19,236
Furniture	17,894
Impressionism (Art)	17,783
Painting, European	16,549
Art, French	16,177

Finally, we explored subject-based aspects of the materials included in the e-book category mentioned in “Collection features: Types of materials” above. To perform this analysis, we separated the publications that appeared to be digitized reproductions of print materials into a separate subcategory to capture any differences in subject focus for these materials. Interestingly, we found that the most widely held subjects for digitized publications, as well as for all other materials in the e-book category, had a distinctly non-art focus. For the subcategory of digitized materials, only a few art-focused subject headings appear in the 25 most widely held subject headings: “Art” (ranked 11th) and “Painting” (ranked 24th). “Architecture” is ranked 16th. For the remaining materials in the e-book category, no art-related subject headings appear in the 25 most widely held subject headings. These findings suggest two takeaways: first, that art-related publications tend to be print, and second, that there may be significant, untapped opportunity for cross-institutional coordination of digitization effort aimed at print materials associated with art-focused subjects.

HOLDINGS PATTERNS

The degree of uniqueness present across the holdings within a collective collection is a good indicator that collaboration can extend the boundaries of local collections and leverage complementary holdings. With 8.6 million distinct publications accounting for 16 million total holdings, a simple calculation indicates an average of nearly two institutions holding each publication in the proxy collection. But this calculation obscures a more complex pattern of holdings across the proxy group members. In fact, the vast majority—a little over three quarters of the publications in the collection—are held by only a single group member. A further 17 percent are held by between two to five group members. Only 4 percent of the publications feature six to 10 holdings, and even fewer—2 percent—are held by more than 10 members.

Holdings Overlap in the Proxy Collective Collection

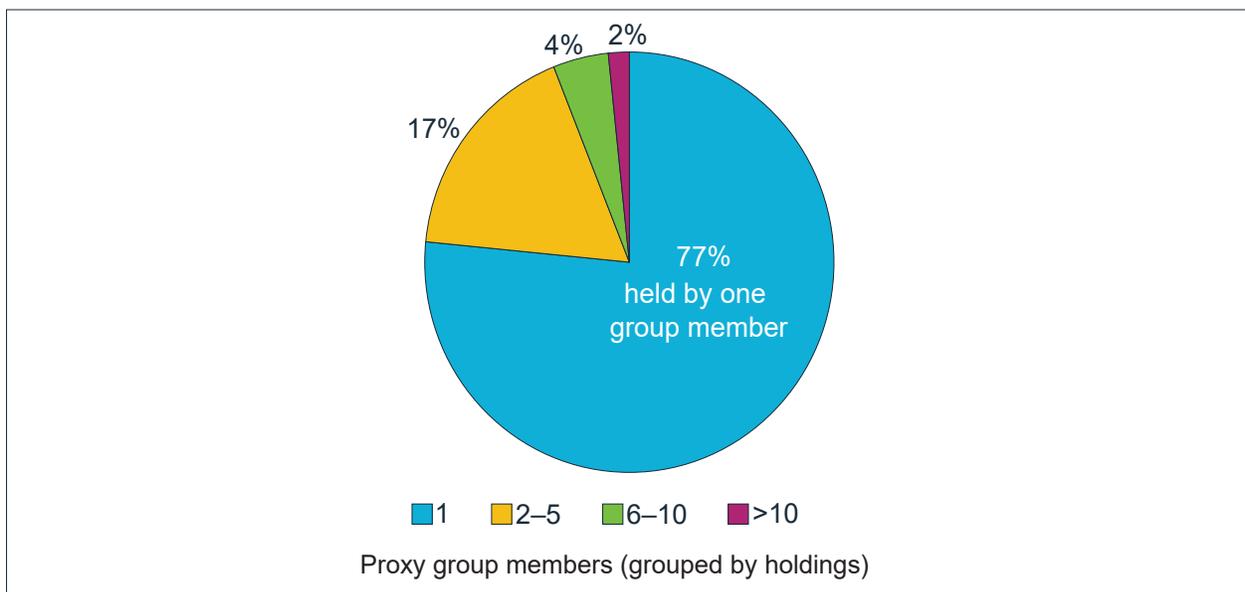


FIGURE 7. Holdings overlap in the proxy collective collection.

The most intriguing feature of this pattern of holdings is the large proportion of publications accounting for only a single holding among the proxy group members. This indicates a high degree of uniqueness at the publication level across the individual collections comprising the proxy collective collection. A high degree of uniqueness suggests that the individual collections

are more complementary than duplicative, and that their aggregation into a collective collection produces a resource that significantly extends the breadth and depth of what is available in any single local collection.

While the data suggests an extraordinary degree of uniqueness across the holdings of the proxy group members, it is in reality a more nuanced finding. First, it is important to note that the idea of “uniqueness” is itself open to different interpretations. In our analysis, we are looking at uniquely held *publications*. However, two publications of the same work, but representing different editions or imprints, would be considered distinct publications in our analysis. If these publications are each held by a single group member, they would fall into the category of uniquely held materials. In this case, the uniqueness would pertain to packaging, presentation, or relatively minor differences in the intellectual content.

An additional point about the large proportion of publications in the proxy collection attributed to a single holding is that this finding only applies within the context of the 85 institutions in the proxy group membership. In other words, these materials are unique or rare within the context of the proxy collection, but not necessarily within the larger universe of libraries worldwide. Figure 8 illustrates the holdings pattern for the proxy collection, but with the frame of reference extended to all the institutions whose holdings are registered in WorldCat, which includes libraries of all types and locations. The results indicate a significant difference in the overlap pattern when compared to the proxy-group-only pattern in figure 7, which is included in figure 8 for reference. The large fraction of the collection held by a single institution shrinks from 77 percent to 16 percent when the frame of reference is WorldCat as a whole, while the small sliver of materials held by more than 10 group members expands to nearly half the collection. This data is a good reminder that cooperative collection development decisions based on perceived scarcity or abundance depends on the frame of reference, and likely also on the mix of institutions whose holdings are included in the collective collection.

Holdings Overlap in the Proxy Collective Collection (WorldCat Context)

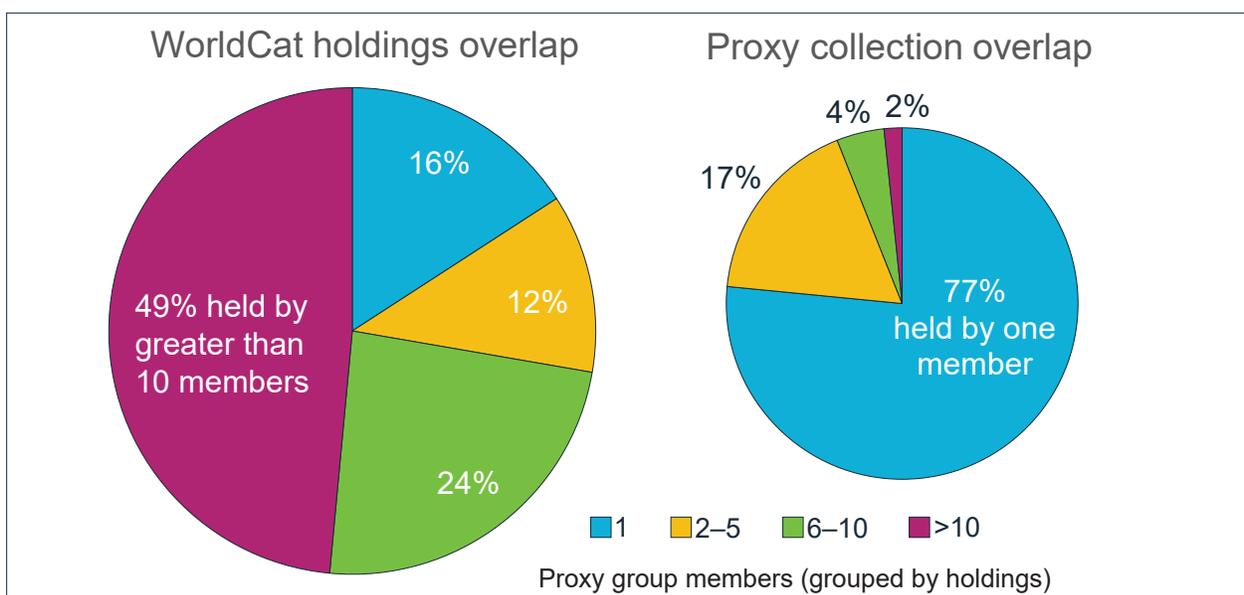


FIGURE 8. Holdings overlap in the proxy collective collection (WorldCat context).

Despite the caveats noted above, the proxy art research collective collection does have a considerable element of uniqueness evident across its constituent collections. One source of this uniqueness may be the types of materials typically held by art libraries. Figure 9 shows the holdings overlap within the proxy group for the five largest genres of materials on the list in table 1: exhibition catalogs, auction catalogs, artist files, artist books, and trade catalogs. For reference, the holdings overlap for the proxy collection as a whole is also included. From this data, it is clear that several categories of these materials—artist files and trade catalogs—stand out as parts of the collection that tend to be held by a single member of the group.

Holdings Overlap (Special Categories of Materials)

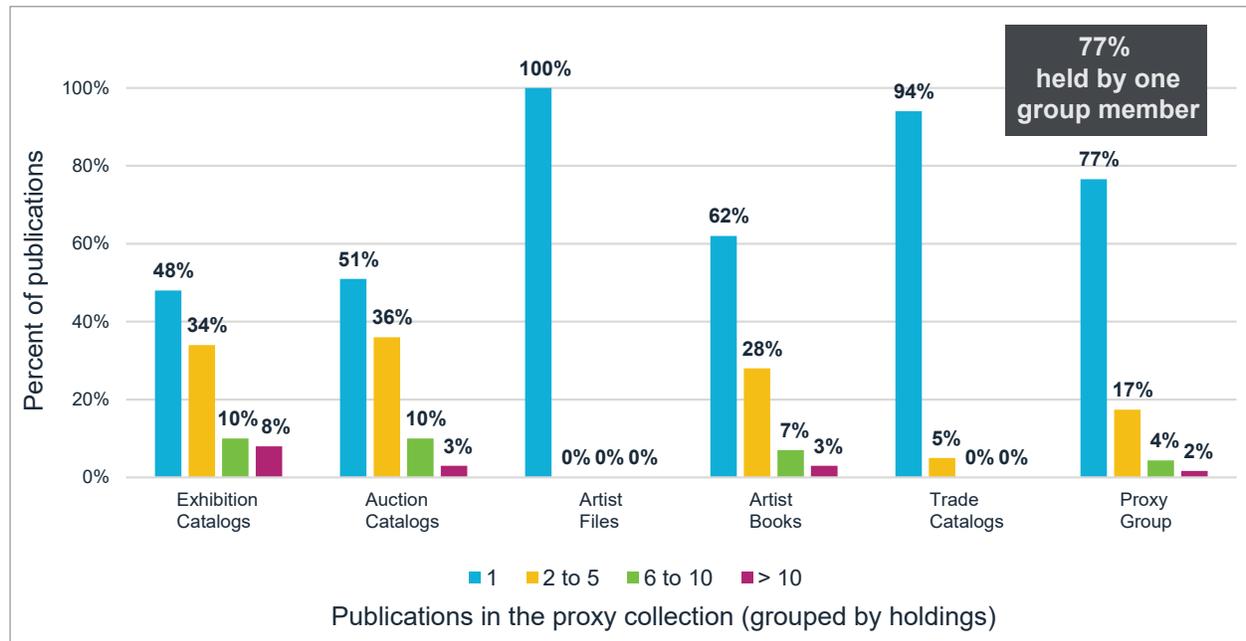


FIGURE 9. Holdings overlap (special categories of materials).

Another factor that helps deepen our understanding of the degree of uniqueness present in the proxy collection is the holdings pattern evident among the publications in the e-book category. Viewed in isolation, these materials exhibited a pattern of holdings even more skewed toward uniqueness than the proxy collection as a whole: 87 percent of the publications in the e-book category are held by no more than one proxy group member, while 97 percent are held by five or fewer proxy group members. Since the e-book category constitutes a large portion of the overall proxy collection, it is surely an important contributing factor to the uniqueness seen when the proxy collection is viewed as a whole. It also suggests that there is likely relatively more duplication across the proxy group collections among other types of materials in the collective collection, such as print books, that could be fertile ground for partnerships aimed at shared print management or digitization efforts.

Given the holdings overlap data for the proxy collection, is it reasonable to conclude that art research libraries are unusual in the degree of uniqueness associated with their collections? The evidence is mixed. On its face, the unique holdings of the proxy art research collection are not unusual—we have found similar patterns in other, non-art research focused collective collections. For example, a 2016 analysis of the Research Libraries UK (RLUK) collective collection found that 88 percent of distinct print book publications in the collection were held by fewer

than five RLUK members.¹² Indeed, the frequent appearance of large swathes of relatively scarce materials in collective collection analyses has led us to propose “rareness is common” as a general characteristic of collective collections.¹³ However, the findings in figure 9 do suggest that art libraries specialize in collecting several categories of material that are highly unique, or “hyperlocal,”¹⁴ with artist files and trade catalogs as two prominent examples. These highly unique categories of materials are important contributors to the overall uniqueness present in the proxy art research collective collection.

While uniqueness seems to be a prominent feature of the proxy collection, it is important to acknowledge that duplication exists in the collection as well: while only about 2 percent of the publications are held by more than 10 institutions within the group, this still accounts for nearly 150,000 distinct publications. This underscores the idea that within a collective collection, there is likely opportunity to both reduce redundancy as well as leverage complementary holdings.

COMPARISON TO THE ART DISCOVERY GROUP CATALOGUE

As the preceding analysis indicates, it is possible to use collective collection analysis to identify broad patterns across collections that can help identify opportunities for collaborative effort. However, collaborative opportunities are significantly influenced by who is involved. A different set of partners (and therefore a different collective collection) may mean different collaborative opportunities. So, it is important to explore all feasible partnerships when deciding on the best collaborative arrangement for your institution—each may offer different sources of value.

For example, an art research library that is considering joining the proxy group collaborative could benefit from comparing the proxy group with another collective collection. To illustrate this, we use the Art Discovery Group Catalogue (ADGC) as a point of comparison with the proxy collection.¹⁵ The ADGC is an art-focused research subset of the WorldCat database, based on the holdings of nearly 60 institutions worldwide, as well as several networks and union catalogs. The member institutions of the ADGC make an interesting comparison to the proxy collective collection developed for this study, in that while they share a similar mission to that of our proxy members, they are much more geographically dispersed. Figure 10 shows some basic analysis of the ADGC collective collection in terms of size and total holdings.

The Art Discovery Group Catalogue Collective Collection (Size and Holdings)

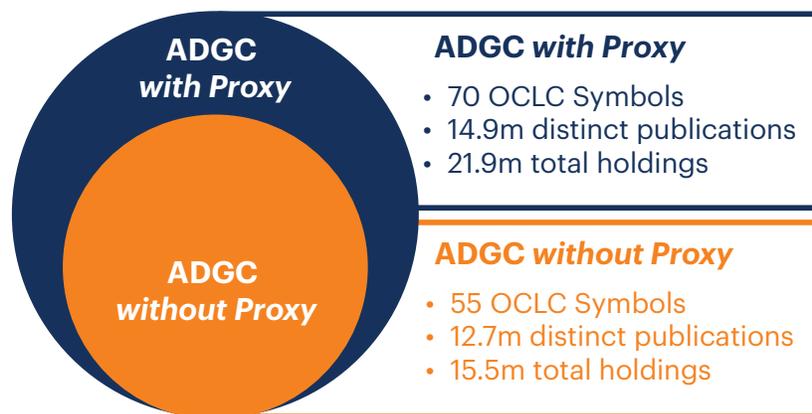


FIGURE 10. Art Discovery Group Catalogue collective collection (size and holdings).

As figure 10 indicates, the ADGC collective collection, as it is represented in WorldCat, accounts for 14.9 million distinct publications, based on total holdings of almost 22 million across the group’s membership. This is a significantly larger collective collection than the proxy collection—both in terms of publications and total holdings.

Some overlap in membership exists between the ADGC group and the proxy group created for this study: 15 institutions are in both groups. If the holdings of these institutions are removed from the ADGC collection, what is left is a collective collection comprised from an entirely different set of institutions than those included in the proxy group. Recalculating the size of the ADGC collective collection after removing the holdings of the 15 proxy group members leaves a collection of 12.7 million publications based on 15.5 million total holdings—still larger than the proxy collective collection in terms of publications, but slightly smaller in terms of total holdings.

Figure 11 below shows the overlap between the two collective collections. The left-hand side of the figure shows the overlap between the two collections in the case where the holdings of *all* members of the ADGC are included. As figure 11 indicates, this yields the finding that nearly half of the proxy collection is replicable within the ADGC collection.

Because the ADGC membership includes a sizable cohort of institutions that are also in the proxy group, there will by default be some overlap across the collections. In light of this, it is more interesting to examine the overlap that remains if we exclude from the ADGC collection the holdings of the institutions that have dual membership in both groups. This is shown on the right-hand side of figure 11. When the holdings of the institutions that are in both groups are excluded from the ADGC collection, it overlaps with about 20 percent of the publications in the proxy group.

Put another way, this result indicates that about 80 percent of the proxy group collection is not held by ADGC members outside of the proxy group.

Overlap Between ADGC and Proxy Collective Collections

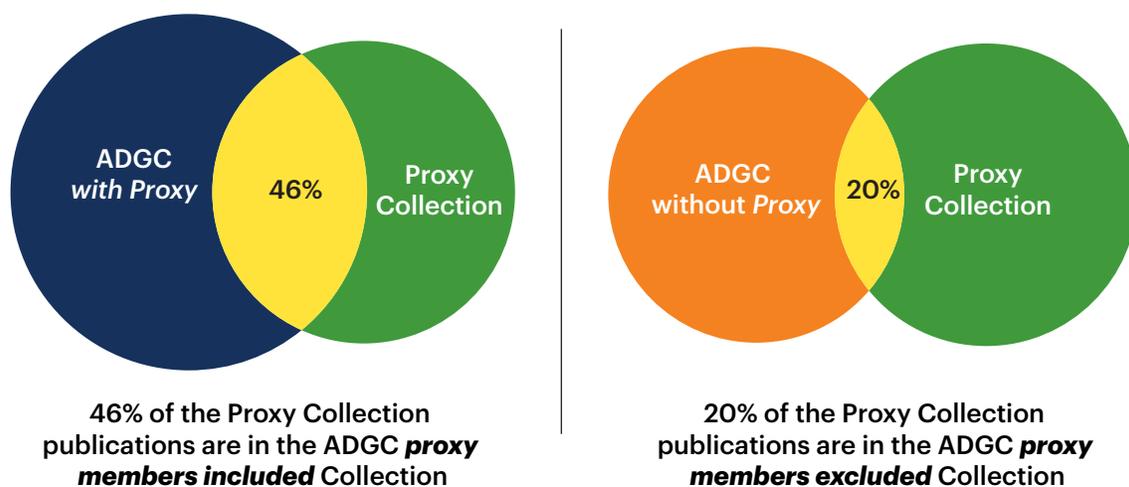


FIGURE 11. Overlap between the ADGC and proxy collective collections.

These results suggest that there is likely significant uniqueness across collective collections, even when the respective groups of institutions share a similar collecting focus—in this case, art research. In this sense, we see a “scaled up” version of the uniqueness seen across local collections *within* a collective collection. When the group of institutions changes, the composition of the collective collection is likely to change dramatically. This illustrates the importance of selecting partners strategically when forming collaborative groupings.

Visualizing the network of art research-supporting institutions

One way to identify potential collaborative opportunities is to look to a broader network of institutions who explicitly or implicitly support art research with their collections. Combining knowledge about the institutional network with the collective collection analysis presented in the previous sections provides insight on:

- What materials are relevant for the art research collective collection
- What institutions hold these materials
- Where these materials are held

These are three essential ingredients for exploring new collecting and resource sharing partnerships to support the art research collective collection or expanding existing partnerships that have not yet been fully leveraged.

The network of institutions whose holdings contribute to the global art research collective collection is far larger than the 85 proxy group members used in the analysis. Identifying the complete network of institutions supporting the global art research collective collection is, for reasons described earlier, not feasible. However, there are some approaches we can take with the data at hand to identify—and visualize—portions of the network, as a means of thinking about partnership opportunities for art research libraries.

This section explores the geographic distribution of potential collaborative partners within a network of research institutions. This approach assumes that institutions whose holdings overlap meaningfully with the proxy art research collective collection are likely to be significant contributors to the global art research collective collection. This conclusion is based on the overlap of their collections and the likelihood that this wider network of collections contain additional materials of interest to art research not duplicated in the proxy collection.

The first step in identifying this wider network is determining an appropriate threshold of overlap. Any threshold chosen is, for the most part, arbitrary, and depending on its magnitude, will represent either a low or high bar for inclusion in the art research network. For our analysis, we chose a 50,000 holdings overlap with the proxy collection as our threshold, acknowledging that selecting a lower or higher figure would increase or decrease the breadth and density of the network, respectively. The 50,000 holdings threshold was chosen because it would represent a significant portion of even a fairly large academic or public library collection (e.g., 10 percent of a 500,000-publication collection). While 50,000 holdings would, admittedly, represent but a small fraction of the largest collections, it has the benefit of including relatively small academic and public libraries that could serve as potential collaborative partners for art libraries. Nevertheless, the 50,000 threshold is arbitrary, and should be seen as an example of this approach for visualizing the network of institutions contributing to the art research collective collection.

Imposing this threshold revealed nearly 3,000 institutions worldwide whose collections, as registered in WorldCat, exhibit an overlap of at least 50,000 holdings with the proxy collection. Since the focus of our study is the US and Canada, we filtered these down to 2,230 institutions located in those two countries. Of these, two-thirds were academic libraries and 10 percent were public libraries, with the rest distributed over a variety of other library types. We will focus on the academic and public libraries to visualize a network of institutions contributing to the global art research collective collection, and therefore potential partners for art libraries interested in collaboration.

PROXY GROUP MEMBERS AND CO-COLLECTORS

We begin by visualizing the locations of the 85 US and Canadian institutions forming our proxy group:

Locations of Proxy Group Members



FIGURE 12. Locations of proxy group members.

As this map shows, our proxy group members are distributed across the US and Canada. These institutions are all important contributors to the global art research collective collection, and as such, form part of the network of institutions underpinning that resource.

But the network of institutions supporting the art research collective collection is much denser in this region of the world than the 85 proxy group members. In figure 13, we show the network of academic and public libraries whose collections are represented in WorldCat that might be considered co-collectors with the proxy institutions—that is, their collections overlap with the proxy collection by at least 50,000 holdings.

Locations of Co-Collectors (50,000 Holdings Overlap Threshold)



FIGURE 13. Locations of co-collectors (50,000 holdings overlap threshold).

As this map illustrates, there are many institutions—nearly 1,700 academic and public libraries—in this global region that could potentially be part of the network supporting the art research collective collection on the basis that their overlap with the proxy collection suggests some alignment with the collecting interests of art research-focused institutions. While not all of these institutions should necessarily be considered a significant contributor to the art research collective collection, the density of the network shown in the map above does indicate that the network of co-collectors with the proxy group membership is extensive and includes many institutions outside the art library community.

CATEGORIZING CO-COLLECTORS: ACADEMIC AND PUBLIC LIBRARIES

We can drill deeper into the group of co-collectors shown in the preceding map and focus on specific institutional categories to illustrate the diversity of institution types that could partner with art libraries. The next map in figure 14 shows the portion of *academic library* co-collectors.

Locations of Proxy Group Members and Academic Library Co-Collectors



FIGURE 14. Locations of proxy group members and academic library co-collectors.

The green dots represent the academic institutions; for reference, we have overlaid the locations of the proxy group members in orange. Two key takeaways are apparent from this visualization: first, the network of US and Canadian academic libraries with a potential stake in the art research collective collection is both extensive and dense. Second, a grouping of art libraries—the proxy group membership—situated within the same geographic space are nearly all surrounded by clusters of these academic libraries. The second point is especially important as we think about potential collaborative opportunities, which, as we see in practice, are often set up on a regional basis.

Locations of Proxy Group Members and Public Library Co-Collectors

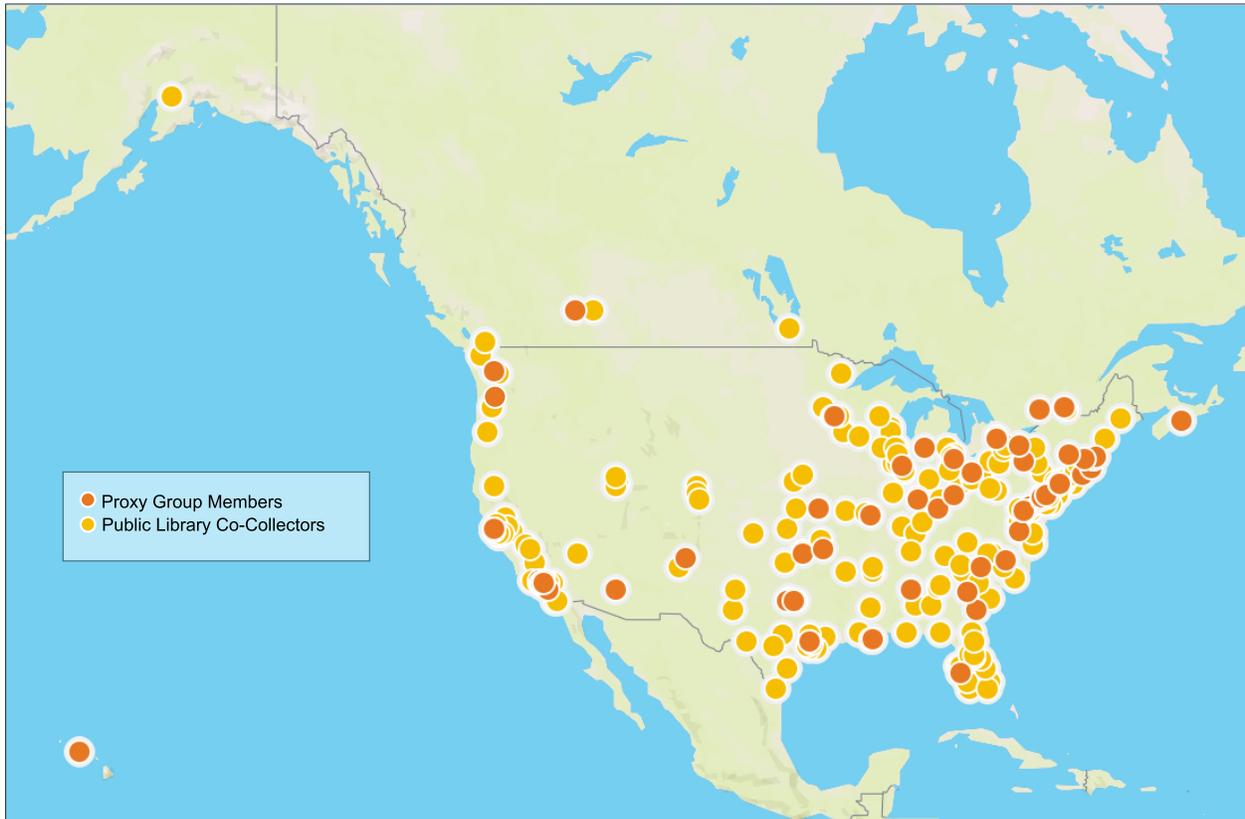


FIGURE 15. Locations of proxy group members and public library co-collectors.

Examination of the *public libraries* meeting the 50,000 holdings overlap threshold with the proxy collection tells a similar story; these co-collectors are visualized in figure 15.

The public libraries are represented by yellow dots and the proxy group members are again indicated by orange dots. As with the academic libraries in the previous visual, we see an extensive network of institutions outside the proxy group with a potential stake in supporting the art research collective collection. While this network is not as dense as the one comprised solely of academic libraries, it is nevertheless sufficiently deep to surround most of the proxy group members. Once again, this suggests the availability of a cohort of nearby potential partners for the art libraries in the proxy group.

A CLOSER LOOK AT GEOGRAPHIC PROXIMITY

This proximity of potential partners to art research libraries is reinforced by “zooming in” on the preceding two maps. The next visual takes a closer look at regional clusters of art research libraries and neighboring colleges and universities, which often collect heavily in the arts and may have specialized art libraries of their own. The focus is on an area of the Northeast US and shows a more granular view of the number of academic libraries (green dots) with at least 50,000 holdings that overlap with the proxy collection, and their proximity to proxy group members (orange dots) in this region.

Regional Proxy Group Members and Academic Library Co-Collectors

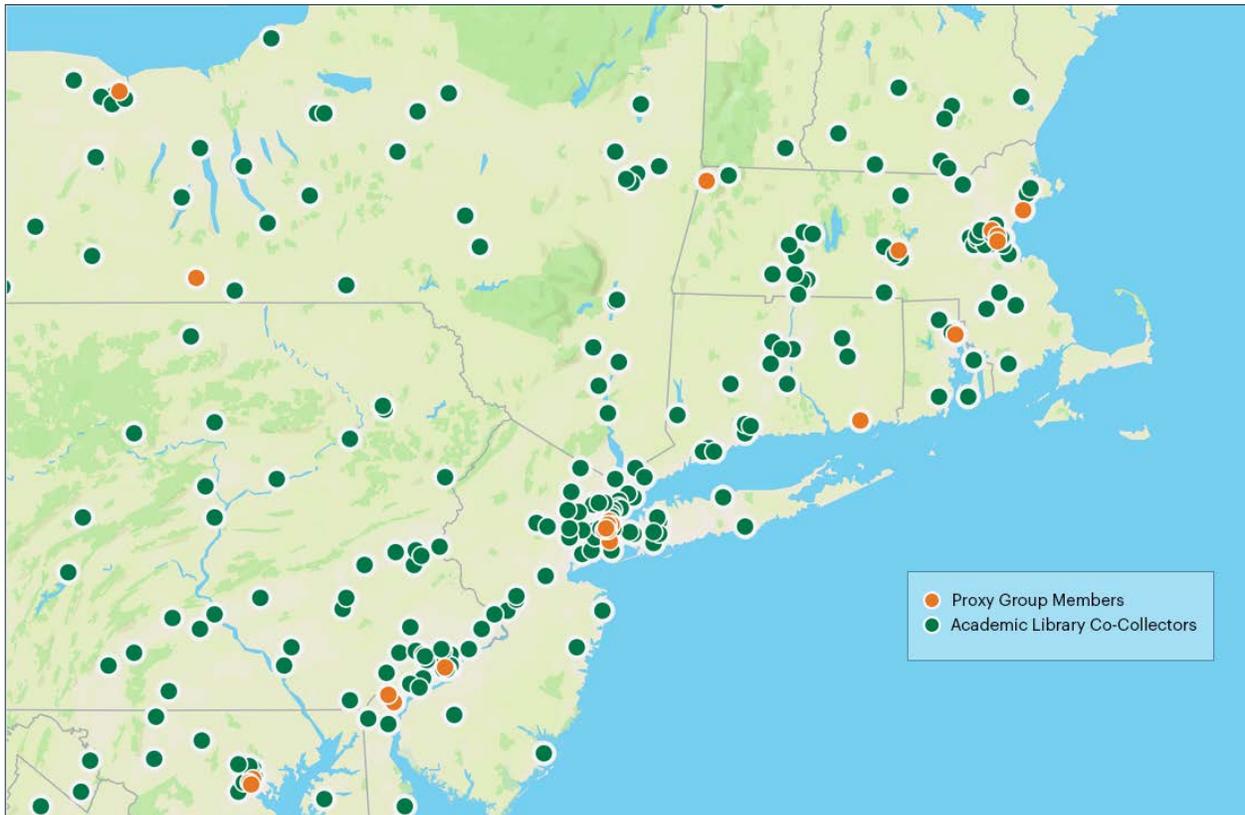


FIGURE 16. Regional view of proxy group members and academic library co-collectors.

It is clear that most of the proxy group members have a number of academic libraries nearby. If collaborative partnerships do indeed tend to focus on institutions that are relatively close to one another, this suggests that art-research-focused libraries, like those in the proxy group, will often have a pool of candidate institutions from which to seek partners. This is corroborated by a similar “zoomed-in” view of a slightly larger region of the US that illustrates the proximity of public libraries to proxy group members (see figure 17).

Regional Proxy Group Members and Public Library Co-Collectors

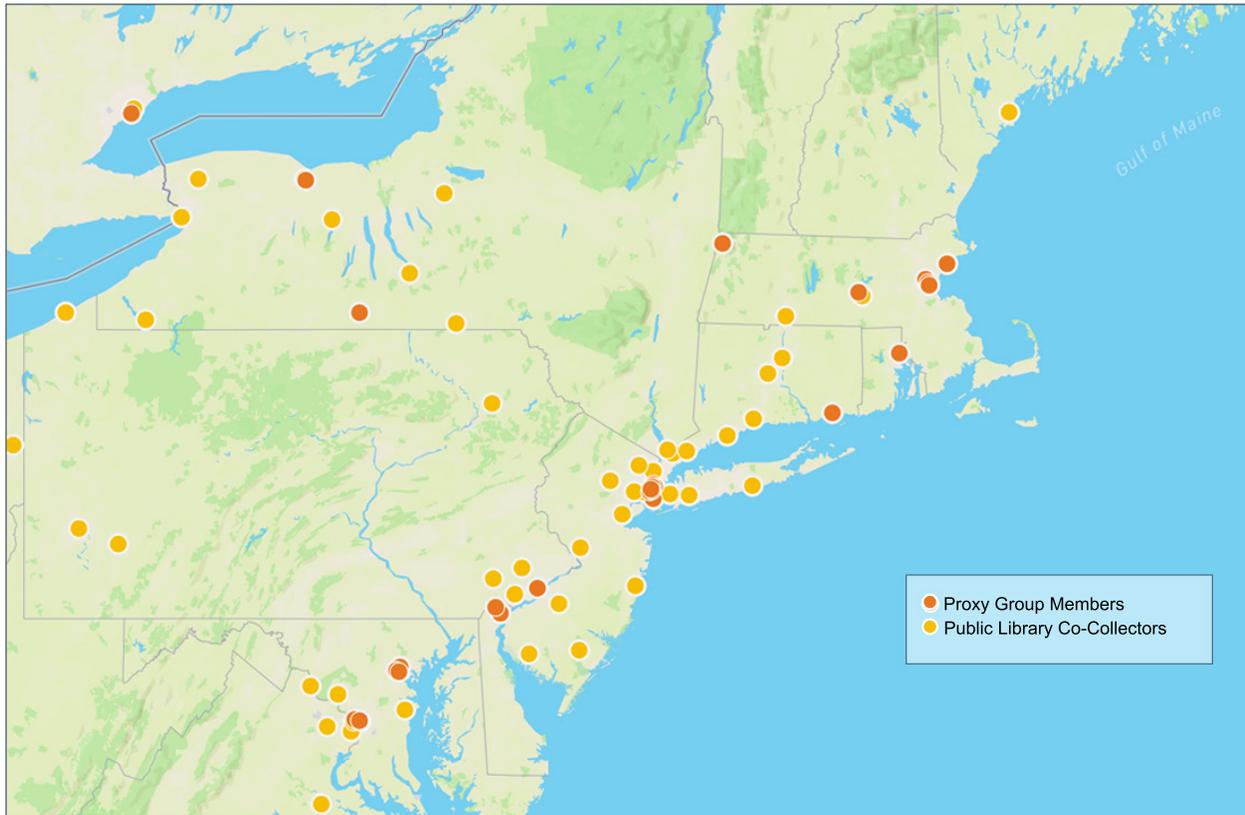


FIGURE 17. Regional view of proxy group members and public library co-collectors.

As with the academic libraries example, many proxy group members are situated near clusters of public libraries that, in light of their holdings that overlap with the proxy collection, likely have some alignment of collecting interests with the proxy members. Some of these public libraries may be candidates for collaborative partnerships around collections.

It is important to emphasize that terms like “close by” or “geographically proximate” are nuanced in their meaning and can have different interpretations depending on context. For some institutions, especially those in heavily populated areas, “nearby” or “local” partners may be viewed within a fairly circumscribed frame—for example, within a specific metropolitan area. On the other hand, in areas where the population is less dense, the boundaries of what is considered local may extend much further, necessitated by the greater dispersion of candidate partners. Moreover, whether or not distance is an important partnership factor may depend on the types of materials informing collaborative efforts. While collaborations involving physical materials may benefit from shorter distances between partners, those pertaining to electronic or digital materials may not consider distance an important factor. These and many other factors may contribute to determining the ideal distance between partners, or indeed if distance matters at all.

Resource Sharing Activity Analysis

Sharing the art research collective collection

Building on our understanding of the art research collective collection, who holds it, and where it is held, the next step for evaluating partnership opportunities was to investigate how the proxy group's collection has been shared both inside and outside the group. Libraries that share collections with each other through interlibrary loans are already collaborating at a basic level. Analyzing what art research libraries are borrowing and lending among themselves and with other types of libraries can help identify good collective collection partners. Interlibrary loan analysis can address the following questions:

- What partnering opportunities for art research libraries exist beyond their state, province, or region?
- What partnering opportunities for art research libraries exist outside their immediate peer group?
- What value might other library types see in specialized art research libraries as partners in resource sharing arrangements?
- How does the noncirculating nature of many art research library collections impact potential partnerships with other library types in collaborative efforts built around collections?
- What opportunities for reducing print management cost might the collection sharing data between prospective partners suggest?

To accomplish this analysis, we built a data set of the most recent five years (2017 – 2021) of transactions from WorldShare ILL, OCLC's interlibrary loan network, where a proxy group member was either the borrower or the lender. This left us with a data set representing:

- Filled interlibrary loan transactions: 158,566
 - 104,962 physical items
 - 53,604 scans or other surrogates
- Unfilled interlibrary loan transactions: 244,002
 - 60.7% representing multiple stops at different potential lenders for a requested item that was eventually supplied
 - 39.3% never successfully obtained

Fifty of the 85 proxy group members were included in the data set; the remaining 35 conducted no interlibrary loan transactions in WorldShare ILL during those five years. For some of the 50 proxy group institutions that did share collections via WorldShare ILL, our data set may represent an incomplete view of their resource sharing activity during this period as it would not reflect requests sent on other platforms. It should also be noted again that our proxy group is made up of specialized art research libraries whose holdings appear in WorldCat under their own OCLC symbol. Other specialized art research libraries in academic environments whose holdings appear under an umbrella OCLC symbol that includes other libraries will, for the purposes of our analysis, be "outside the group."

The purpose of the analysis below is to illustrate how collection sharing data can inform decision-making about collaborative partnerships for art libraries. This analysis is not intended to recommend specific partnerships for specific institutions represented in the data set.

Patterns in partner selection and request type

Analyzing patterns in ILL partner selection and in the ILL request types of materials being shared—copies or loans—provides clues about art researcher needs that are not being met within local collections. The findings from such an analysis can identify prospective partner libraries that are in a position to help meet those needs.

A mere 15.1% of the collection sharing in our data set happened within the proxy group. In other words, nearly 85% percent of the filled ILL transactions that we analyzed involved a proxy member sharing with a partner outside of the group. Nearly half of the ILL transactions in our study (47.7%) saw a proxy group member borrowing from an institution outside of the group, while 37.2% saw a proxy group member lending outside of the group. Many factors go into selecting an interlibrary loan lender, but clearly libraries outside the proxy group collect research materials that proxy group patrons need. This data point again reinforces the idea that pursuing collaborative partnerships with institutions outside the immediate peer group could be a worthwhile endeavor.

Proxy Group ILL Activity on the OCLC Network

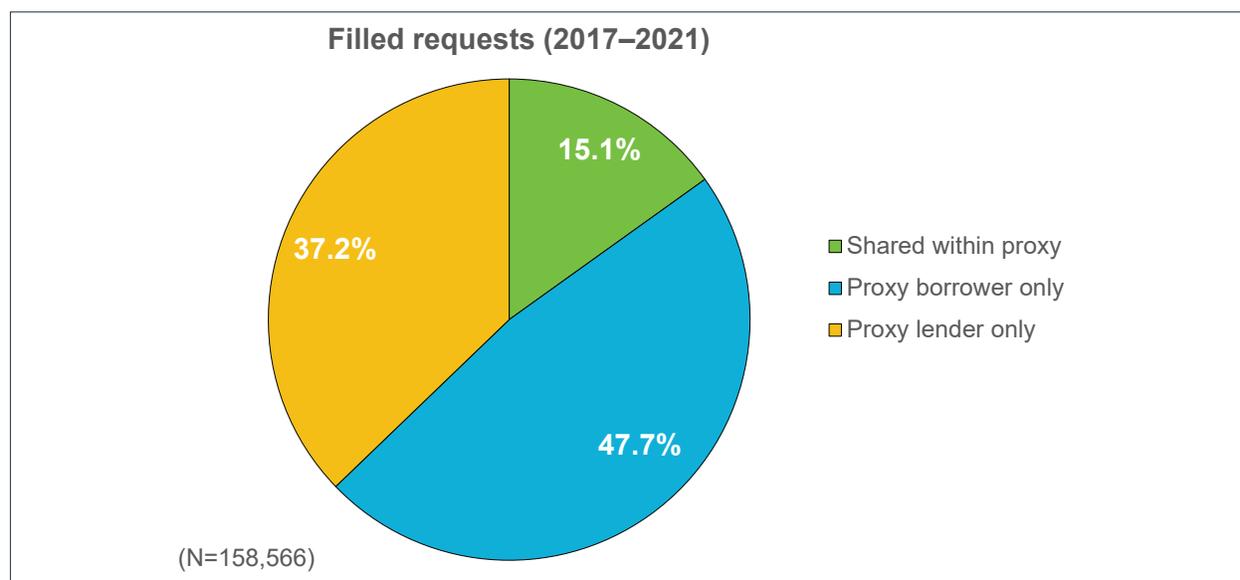


FIGURE 18. Proxy group ILL activity on the OCLC network.

While the proxy group as a whole borrowed significantly more than it loaned via interlibrary loan, many proxy group members were prolific and effective lenders. The top 15 lenders in our data set were all in the proxy group and accounted for over 40% of the total loans, with response times that compare favorably with large academic lenders that are often staffed and resourced to provide interlibrary loan service at scale. The data suggests that specialized art libraries can participate as full partners who have plenty to offer in terms of collection access and delivery when engaging in collaborative partnerships with libraries outside the group. (See [Characteristics of Frequent Collection Sharing Partners](#) for detailed discussions of partnering patterns.)

It should be noted that the time period covered in our study includes the first two years of the global coronavirus pandemic. By breaking the ILL data out by year and separating the sharing of physical items from copies, we can clearly see the impact that pandemic-related disruptions had on the proxy group’s collection sharing (see figure 19). Throughout the first three years, the numbers are extremely consistent, with twice as many originals being shared when compared with copies.

The pandemic caused US and Canadian libraries to lock down in March 2020. For the next two years, the sharing of originals decreases dramatically, while the sharing of copies holds steady and then increases. Anecdotally, we know this happened because many libraries closed during that period and were unable to access their print collections, let alone share them. This disruption unavoidably skews our study’s resource sharing data. The long-term effects of the pandemic on collection sharing are unknown, but recent data does suggest that, currently, the sharing of physical items is once again outpacing the sharing of copies across the interlibrary loan landscape.

Impact of the Pandemic on Sharing of Original vs. Copies

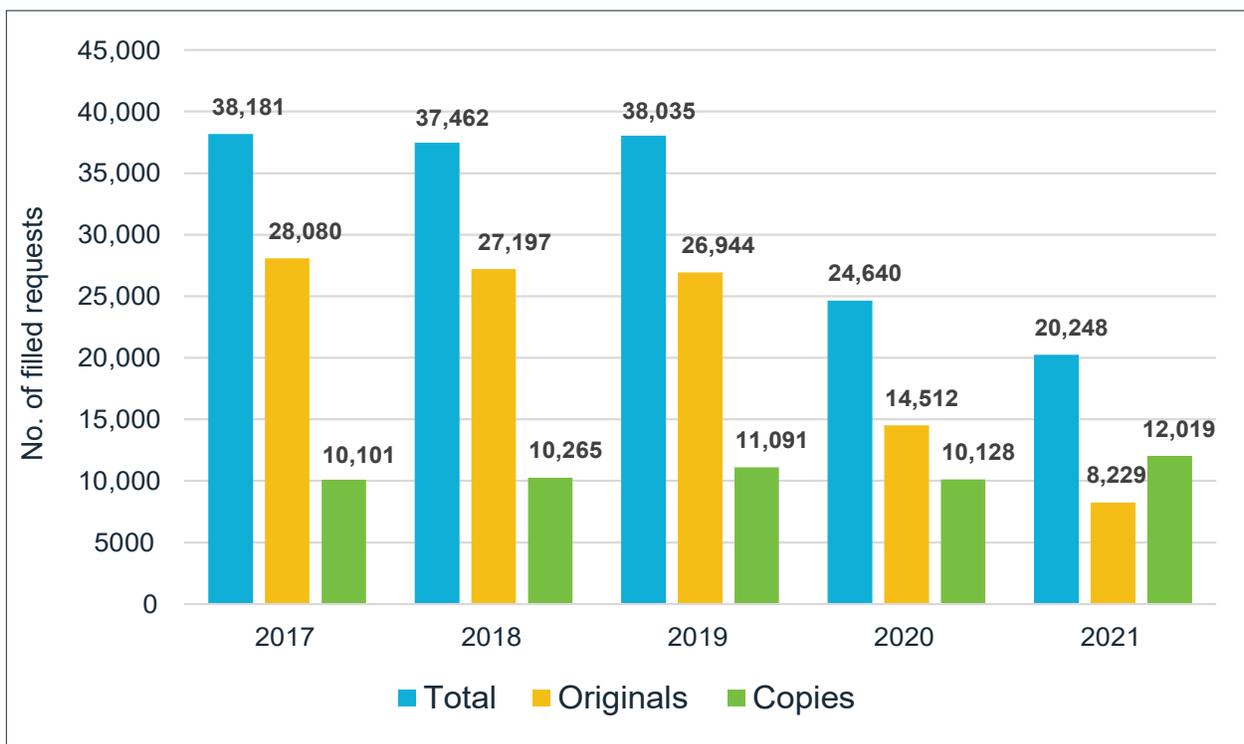


FIGURE 19. Impact of the pandemic on sharing of original vs. copies.

Characteristics of the materials shared

The characteristics of the materials shared by proxy group members mostly mirror those of the proxy group collective collection overall, in terms of subject, format, publication date, language, and relative scarcity:

- 42% of supplied items fell in the Library of Congress N (Fine Arts) class
- 89% of supplied items were described either as Books (71%) or Serials (18%)

- 52% were published after 2000; 81% after 1975; 92% after 1945
- 71% of the items shared were in English, with 8 of the top 10 shared languages being identical with the top 10 languages represented in the art research collective collection
- 84% of the requested items were held by 10 or fewer proxy group members, with 27% held by a single proxy group member

Items shared skewed newer than the collective collection overall. Only a quarter of the collective collection was published after 2000, while more than half the shared items were that recent. Perhaps the most significant takeaway from this data is the subject matter of requested material, with 58% of the items shared via interlibrary loan by the proxy group falling into Library of Congress classes other than Fine Arts. Once again, this points to the value of considering collaborative partnerships with institutions outside of one’s peer group.

SHARING OF SPECIAL MATERIAL CATEGORIES

As part of our collective collection analysis, we identified a list of special categories of materials, or genres, that are frequently collected by art libraries. The most widely held types of these special categories, exhibition catalogs, and auction catalogs were also the most frequently shared (see figure 21). Exhibition catalogs were especially prevalent, accounting for 7.9% of the proxy group collection and 15% of the special category items shared. Exhibition catalogs were loaned almost exclusively by proxy group members, and the top borrowers of these materials include a string of large academic borrowers from outside the group. The fact that art libraries are the primary holders of these special categories of material and are willing to share them potentially makes them attractive partners for all types of institutions seeking access to such materials for their patrons.

TABLE 5. Special material categories collected vs. shared by art research libraries.

Genre	No. of publications*	No. shared via ILL*
Exhibition catalogs	675,116	23,791
Auction catalogs	143,460	1,097
Artist files	129,550	78
Artists books	25,465	242
Trade catalogs	10,396	22
Catalogues raisonnés	8,968	871
Prints	5,212	5
Photo books	4,922	282
Zines	2,716	27

*Data from analysis of 655 field

The fact that art libraries are the primary holders of these special categories of material and are willing to share them potentially makes them attractive partners for all types of institutions seeking access to such materials for their patrons.

SHARING OF E-FORMATS

One major difference between the art research collective collection and the profile of the materials shared is the prevalence of digital monographic material in the collective collection (43%) compared with a dearth of shared e-resources—only 5,939 items out of 158,566 filled requests, or 3.7% of filled requests are e-resources. Two factors make this unsurprising.

- Art research is heavily dependent upon illustrated print resources.
- While articles from e-journals are easily shared, e-books are difficult to share due to licensing issues and a lack of effective technical infrastructure.

The lending of digital materials in our data set was done almost exclusively by large academic libraries outside of the proxy group, with only one proxy group lender in the top 10 and three in the top 20. Just over half the material formats for the shared e-resources were e-serial (51%), followed by e-text (21%). Only 212 shared e-resources (3.5%) were described as e-books. Differences in material-type terminology between WorldCat records and WorldShare ILL records complicate direct comparisons between what was held and what was shared by the proxy group libraries. But the key takeaway from our analysis of e-resource sharing by art libraries is clear: print materials were sought from other libraries in 96.3% of the ILL filled transactions in our study, a clear indication of the primacy of print collections in art research.

The key takeaway from our analysis of e-resource sharing by art libraries is clear: print materials were sought from other libraries in 96.3% of the ILL filled transactions in our study.

SHARING ANALYZED BY LIBRARY OF CONGRESS CLASSIFICATION CLASSES

We analyzed the subject matter of books and serials shared within our data set to better understand what classes of materials are of high interest to art researchers and what types of libraries hold and are willing to share those materials (see table 4). We based our subject analysis on Library of Congress Classification (LCC) classes and subclasses, as LCC data was present in the vast majority of our interlibrary loan transaction records. The LCC designates Fine Art in class N, and narrower topics under Fine Arts in N subclasses such as NB (Sculpture) and ND (Painting).¹⁶ Art research materials may also be found in other classifications. The T (Technology) schedule includes TR (Photography) and TT (Handicrafts/Arts and Crafts).¹⁷ Art of Native Peoples of the Americas are traditionally classed within E and F, under History of the Americas, and though this classification reflects a harmful and inaccurate framing of Native Peoples as being of history and not of the present, it is still widely used in practice.¹⁸

No matter who is sharing with whom—proxy to proxy, proxy lending outside, proxy borrowing from outside—the top two LCC classes and/or subclasses in all three categories are N (Fine Art) and ND (Painting). These two subclasses account for almost a quarter of all the material shared. The surprising part is these are the top two subclasses even when proxy group members *borrow* from lenders outside the group.

TABLE 6. Top 10 Library of Congress subclassifications shared.

All Transactions	Within Proxy	Proxy Borrowed from Non proxy	Proxy Lend to Non proxy
Fine art (18.0%)	Fine art (31.1%)	Fine art (10.2%)	Fine art (23.6%)
Painting (9.0%)	Painting (18.7%)	Painting (6.2%)	Painting (8.9%)
Decorative arts (5.3%)	Decorative arts (7.7%)	Literature (3.8%)	Decorative arts (8.3%)
Literature (4.2%)	Photography (3.5%)	History, Asia (3.3%)	Literature (6.0%)
Architecture (3.5%)	Architecture (3.2%)	Decorative arts (2.5%)	Architecture (5.3%)
Photography (2.8%)	Sculpture (3.0%)	History, US (2.5%)	Photography (4.1%)
History, Asia (2.3%)	Prints (2.7%)	History, America (2.3%)	Handicrafts (2.3%)
History, US (1.9%)	Drawing (2.3%)	Architecture (2.2%)	Drawing (2.1%)
Prints (1.7%)	Arts in general (1.9%)	Bibliography (2.0%)	Arts in general (2.0%)
History, America (1.7%)	History, Asia (1.8%)	Photography (1.8%)	Sculpture (2.0%)

When proxy group members borrow from outside the group, only four of the top 10 LCC subclasses are fine arts, including the top two, General Fine Arts and Painting. Third is PN (Literature), which at first glance was a surprise. However, a closer look reveals that shared Literature-class items were mostly DVDs and books on filmmaking, television, comics, and graphic novels, still very much in keeping with research in Fine Arts.

...58% of the loaned and borrowed materials in our study fall outside of the Library of Congress Classification:Class N—Fine Arts. This is a clear indication that collaborative partnerships with libraries outside the art library peer group are well worth considering.

This method of analyzing what proxy group members shared via interlibrary loan does have limitations, as LCC data was not present in 14.8% of the transactions in our data set. We know anecdotally, for instance, that many art libraries do not apply Library of Congress subclassifications to their auction catalogs, which accounted for 1,079 loans in our data set.

It bears repeating from [Characteristics of the Materials Shared](#) that 58% of the loaned and borrowed materials in our study fall outside of the Library of Congress Classification:Class N—Fine Arts. This is a clear indication that collaborative partnerships with libraries outside the art library peer group are well worth considering.

Characteristics of frequent collection sharing partners

This section analyzes five years' worth of proxy group members' WorldShare ILL¹⁹ data to assess which partner characteristics are most determinative for art research libraries—and theoretically, by extension, libraries in general—when establishing and prioritizing ILL relationships. Examined characteristics include proxy group member status, geographic proximity, response time for fulfilling interlibrary loan requests, and the existence of a formal resource sharing agreement—current or past—between partners.

PROXY GROUP MEMBER STATUS

Proxy group members did not gravitate toward other proxy group members when seeking ILL partners. Of the 50 proxy group members with WorldShare ILL transactions in our data set, 29 (58%) had an institution outside of the group as its top sharing partner, while 21 (42%) had another proxy group member as its top sharing partner. Twenty-two (44%) had outside institutions as their top three sharing partners, while 13 (26%) had other proxy group members as their top three sharing partners. This data suggests that specialized art libraries are more likely to partner with other types of libraries when sharing collections. This data also aligns with the fact that, as discussed previously, nearly half of all the filled transactions in our data set (47.7%) saw a proxy group member borrowing from outside the group.

GEOGRAPHIC PROXIMITY

Accepted practice in interlibrary loan has long been to share locally and within one's own state or province, when possible. This is particularly true when sharing physical items to save time and shipping costs, with institutions partnering further afield when necessary. It should be noted that sharing physical items with nearby partners is also better for the environment than shipping packages across vast distances. Surprisingly, distance did not appear to be the determining factor for most proxy group members and their resource sharing partners when we look at the data set as a whole. Regardless of which lens is applied, distance was clearly a secondary consideration when selecting an interlibrary loan lender, if it was considered at all:

- Average distance traveled for 158,566 filled transactions (loans and copies): 899 miles
- Average distance for physical loans: 824 miles
- Average distance between two proxy group ILL partners (loans and copies): 1,033 miles
- Average distance when one ILL partner is outside the proxy group (loans and copies): 1,041 miles

One can understand why distance isn't a prioritized factor when interlibrary loan partners are sharing copies, as most of these are delivered electronically. But our finding that the average distance between partners sharing physical items is over 800 miles—and only 75 miles less than the average distance traveled by all shared items in our data set—is surprising.

Filled ILL Requests by Distance Between Partners

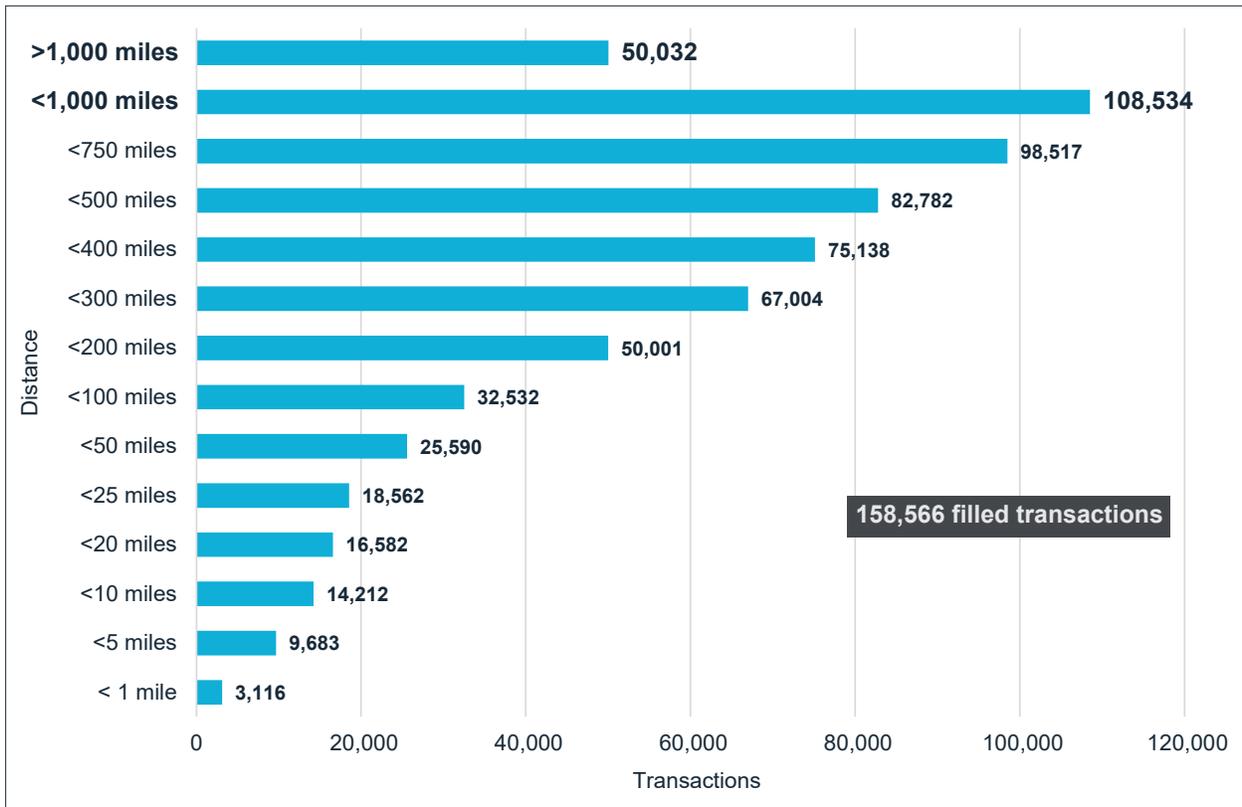


FIGURE 20. Filled ILL requests by distance between partners.

Distance did appear to have an impact on partner preference when selecting “most preferred” partners. The top three ILL partners for each proxy group member, whether inside or outside the group, averaged 638 miles apart—29% less than the 899 miles averaged overall between all partners in the data set. There was, however, little difference in the average distance between the first, second, and third top partners overall:

- First: 652 miles
- Second: 616 miles
- Third: 647 miles

The data regarding distance between collection sharing partnerships suggests that art research libraries may not be limited to institutions in close proximity when seeking to establish collaborative partnerships. Distance also did not seem to significantly impact what was being shared, with the exception that libraries in close proximity were more likely to share media such as DVDs.

LENDER RESPONSE TIME

Response time is an important metric used by borrowing institutions to evaluate interlibrary loan lenders. Our data indicates that response times likely did impact the collection sharing partner preferences of proxy group members more than distance.

Measured as the interval between creation of the interlibrary loan request by the borrower and the online “filled” response by the lender, the average response time for the 158,566 filled requests in our study was 3.4 days. Compare that mark with the response times of filled requests both within and outside of the group:

- Overall response time of all filled requests: 3.4 days
- Within proxy group: 3.5 days (15.1% of filled requests)
- Proxy borrowing from outside: 3.2 days (47.7% of filled requests)
- Proxy lending outside: 3.7 days (37.2% of filled requests)

Lenders from outside of the proxy group, then, were the fastest and saw the most traffic in our data set. The longest response time was when proxy group members loaned to libraries outside the group. But the differences are relatively minimal.

The response times for top preferred partners are another indication that speed mattered. The average response time for each proxy group member’s top preferred partner, whether inside or outside the group, was relatively fast: 3.2 days. The 21 proxy group members that were the top preferred partners of other group members performed even better, with an average response time of 3.0 days. The 29 preferred partners of proxy group members that were from outside of the group also beat the overall response time average for the entire data set at 3.3 days versus 3.4 days. Therefore, we can reasonably conclude that response time was a factor in selecting favorite resource sharing partners.

TABLE 7. Lender response times.

Category	Institution group or type	Avg. response time (days)
All libraries	All libraries filling requests	3.4
Proxy transactions by type	Proxy lending to Proxy	3.5
	Proxy borrowing from Non-Proxy	3.2
	Proxy lending to Non-Proxy	3.7
Top preferred lenders	Proxy Group’s top preferred lenders	3.2
	Proxies as top preferred lenders	3.0
	Non-Proxies as top preferred lenders	3.3
Proxy lenders by type	Academic Proxy lenders	2.9
	Non-academic Proxy lenders	3.4
Highest volume	Highest volume R1 Carnegie Class Non-Proxy lender	2.5
	Highest volume museum-associated Proxy lender	2.9

Data regarding response times of academic lenders versus nonacademic lenders in our study is more difficult to interpret. Response times for the 25 academic lenders in the proxy group averaged 2.9 days, while the 25 nonacademic lenders in the proxy group averaged 3.4 days. The highest-volume R1 Carnegie Class academic lender in our data set had an average response time of 2.5 days, while the highest-volume lender associated with a museum had an average response time of 2.9 days. While this small data sample appears to indicate that academic libraries are typically faster lenders than nonacademic libraries, the difference is modest.

Two conclusions that might cautiously be drawn from this small pool of response time data are:

1. Speed is a sign of reliability and is a quality desired by specialized art research libraries in an interlibrary loan partner.
2. Specialized art research libraries can hold their own regarding interlibrary loan response times, with response times comparable to a typical large, well-staffed academic library resource sharing operation.

FORMAL RESOURCE SHARING AGREEMENTS

Formal agreements with interlending partners and groups of partners can weigh heavily in the selection of prospective suppliers. Using the OCLC Research Library Partnership's SHARES resource sharing network as an example,²⁰ we see this influence in effect. Thirteen proxy group members (26% of the 50 with WorldShare ILL activity in our data set) are members of SHARES. All 13 SHARES proxy group members chose other SHARES institutions as their top three sharing partners. Another six proxy group members are former SHARES members. All six still chose SHARES members as their top three sharing partners.

It is an open question whether this consistent reliance on SHARES libraries as ILL partners is due to the trust level and privileged access available from SHARES partners, or to the fact that these libraries have superior art research collections, are willing to share, and just happen to be SHARES members. Other possible factors not discernible from our data set are cost (the SHARES art libraries do not charge each other for interlibrary loans, though the expedited shipping requirement can be expensive) or the fact that some resource sharing operations set their automated partner preferences and then do not review them for years. But the data is so consistent that it seems reasonable to assume that having participated in a successful resource sharing arrangement with a particular partner or group of partners makes a library more likely to continue to rely upon those partners.

When selecting a resource sharing partner, it appears from this data that familiarity, trust, and reliability can trump distance.

Borrowing items already owned by the borrower

Only 11,131 filled ILL transactions (7% of the total) from the data set show an instance where the borrower already owned the item borrowed. Proxy group members did 70% of this borrowing of items they already owned—2,880 from other proxy group members and 4,900 from outside the group. This result is surprising, as we had anticipated that large academic libraries, which are more typically involved in regional consortial borrowing arrangements, would be more inclined to consider resource sharing as a means of expanding the number of copies of things to which they have access rather than strictly complementing what they already own.

Institutions borrowed twice as many loans as copies when already owned, no matter which lens is applied—proxy to proxy, proxy lending to non-proxy, or proxy borrowing from non-proxy.

The fact that 93% of the materials borrowed and loaned by the proxy group were not already owned by the borrower is a clear indication that specialized art research libraries are utilizing interlibrary loan to expand the universe of materials to which their patrons have access.

Unfilled requests

One method for identifying a prospective collaboration is to pinpoint a current need that is not being met and then seek a partner that can fill that need. With this in mind, we analyzed a set of 244,002 unfilled WorldShare ILL requests where a proxy group member was the unsuccessful borrower. Of these 244,002 unfilled requests, 60.7% were for items that were eventually supplied to the borrowing library, with each unsuccessful stop along the way counted as an unfilled request in our data set, and 39.3% were never supplied, at least not under the original transaction number, according to our data set.

By examining the characteristics of hard-to-borrow research materials and learning the reasons why libraries declined to supply those items, we hoped to uncover some clues about areas of collection management where collaborative partnerships might be fruitful. In this we were disappointed, as no clear patterns were evident about the items that turned out to be difficult to borrow.

More than half the unfilled transactions lacked any information about why the lender declined to supply the requested item. The “reason for no” data that we do have is consistent with negative responses for interlibrary loan requests to borrow materials in any field of study. The most often cited reason was “Lacking,” which means the title was owned but the requested volume or issue was not. “Other” was another popular reason-for-no, which tells us very little. The relatively frequent use of “Deflection—Format” may indicate a widespread reluctance to lend nontraditional or fragile formats such as media and manuscripts. Proxy group members used the “Declined Conditions” reason much more often than non-proxy lenders, most likely asking that the material be used onsite at the borrowing library, with the borrower unwilling to abide.

LCC subclasses in the unfilled data set align with what we’ve seen in the collections analysis and in what was successfully shared between libraries. The proportion of unfilled requests for various material formats mirrors what was seen in the filled requests, when one might have expected to see a higher percentage of traditionally noncirculating formats among the unfilled. Publication dates skew toward more recent materials, just like the items successfully shared. Language stands out slightly in only one context: when the lender is a proxy group member and the item was never successfully filled, the language is about twice as likely to be French.

The staggering number of unfilled requests with no “reason for no” information left an unfortunate void both in our data set and in our ability to learn which materials were difficult to borrow and why.

TAKEAWAYS FOR ART RESEARCH LIBRARY COLLABORATION

Collaboration is an important strategy for art libraries as they seek sustainability in a dynamic environment of evolving research practices, new technologies, and economic pressures. This report uses bibliographic, holdings, and ILL data to document potential opportunities for collaborative activity around art research collections. Indeed, our study of the proxy art research collective collection indicates a strong element of uniqueness across art research collections, suggesting that art libraries bring a sizable cohort of rare or unique materials to the table that are not in other collections. And this creates demonstrable value: our study of ILL transactions found that most ILL transactions involving art libraries are for materials not owned by the borrowing institution. This is a classic case of value created through collaboration—specifically, resource sharing broadens the scope of the local collections of all partners.

An important part of evaluating collaboration opportunities is understanding the factors that can potentially shape and enhance the value of partnerships.

Any collaboration has potential to bring benefits and challenges and will require an investment of resources. Informed assessment of a potential partnership is key to its success. An important part of evaluating collaboration opportunities is understanding the factors that can potentially shape and enhance the value of partnerships. In exploring features of the art research collective collection and resource sharing activity involving art libraries, we identified a number of factors that might signal prospective value in collaborative efforts in building, stewarding, and sharing collections supporting art research. Considering how these factors manifest (or do not) in a possible partnership between an art library and other institutions is a helpful step toward making a strategic decision on whether to pursue it.

In reviewing our quantitative analysis of the proxy art research collective collection and interlibrary lending data involving art libraries, several major themes emerged that help shape a framework for thinking about collection-based collaborative opportunities to support art research successfully and sustainably.

Art libraries bring unique contributions to partnerships

Understanding the value that one's library will bring to a collaboration is vital to making informed partnership decisions and advocating for art research libraries. The specialized nature of art research collections is central to the value art libraries can offer such ventures, both through the collections themselves and the expertise of the art librarians who work with these distinctive collections.

Our collection analysis illustrates the unique strengths of art research libraries. Collections are rich in holdings on both broad and specialized art subjects and include formats like artist files and exhibition catalogs that are relatively unique to art library collections and valuable for art research.

Unique holdings across art libraries show that even in this specialized area of collecting, hyperlocal and rare materials differentiate art libraries from one another, evidence of distinctive value in individual art research collections. This points to the potential benefit of art libraries collaborating with each other on cooperative collection development or digitization projects, and resource sharing partnerships.

The distinctive collecting priorities of art libraries can also offer a valuable complement to partners outside the art library community, whose collecting priorities do not include materials typically collected by art libraries, but whose stakeholders could benefit from access to them. Our ILL analysis shows that art libraries have demonstrated a willingness to share the special material categories collected primarily by specialized art research libraries—genres such as exhibition catalogs, auction catalogs, and in some cases even artists books and catalogues raisonnés. Proxy group interlending data also suggests that specialized art libraries can have significant benefits to offer in terms of collection access and delivery when collaborating with partners outside their peer group. Our ILL data shows that art libraries compare favorably to even the most highly regarded academic interlibrary loan lenders in terms of response time and extend the boundaries of their ILL partners' collections by offering a wide range of unique, complementary materials.

Art libraries should seek collaborative opportunities strategically

Given the complexities of enacting and sustaining partnerships and the tight resourcing constraints present in many art libraries, collaborative opportunities must be entered into strategically. The work in this report makes clear the potential for valuable collaborations between art libraries and other institutions. It also points to how quantitative analysis of collection and resource sharing data can help to inform selection of collaborative opportunities that offer the greatest potential benefit to all partners.

Mapping the network of institutions implicitly or explicitly supporting the art research collective collection shows that this network is likely very large and dense. Many—or even most—of these institutions are outside the core community of museum-affiliated art libraries, or art and design focused academic institutions. To the extent that our proxy group is representative of the broader art library community, there is a strong likelihood that art libraries interested in partnering with other institutions within a suitable geographic distance will find one or more candidate partners.

However, depending on the nature of the collaboration, geography may not be a limiting factor for finding appropriate partners. Our data suggests that in ILL relationships, trust trumps distance. Reliable lender response time and an existing or previous sharing relationship are more determinative than distance when an art library selects an interlibrary loan partner, potentially expanding the pool of prospective partners for some types of collaborations beyond those in the immediate area. Similarly, our collective collection analysis shows that the features of a collective collection (such as hyperlocal materials), and therefore the opportunities for collaboration around it, are tied to the specific mix of institutions involved. Understanding the collection complementarities

and differences of prospective partners and evaluating them in the context of institutional priorities is an important tool for art libraries as they make strategic choices among collaborative opportunities and collaborative partners.

Art libraries should be innovative in their approach to collaboration

It is worth reexamining traditional notions of “how things should work” when considering potential collaborations. For example, in a print-centric world, distance might have been an important factor in weighing the value of a partnership, but a shift to sharing via scanning or e-formats might make distance matter less. Similarly, while art libraries might have traditionally sought to partner with peer institutions, the interdisciplinary nature of art research raises interesting possibilities for new kinds of partnerships with institutions outside of the art library community. In any case, evaluating collaborative opportunities involves nuance and complexity, and it is important to remember that there is no single, one-size-fits-all recipe for successful partnerships.

Art library partnerships can help steward collections more efficiently

Collection stewardship is an ongoing need and challenge for many art libraries. Art libraries share collecting priorities and challenges, suggesting opportunities for collective effort to coordinate collecting activities, address stewardship needs, and increase collection visibility and accessibility.

The book-based nature of the art research collective collection is a fertile ground for creating collective value through collective effort to reduce the burdens of print management. Our collections and interlibrary loan analyses both indicate a heavy reliance on books for art research (and on book-like objects such as auction catalogs), making cooperative print management a key area to explore when considering prospective partnerships. Pooling the print monographic holdings of the prospective partners may offer opportunities to reduce print management costs, including space requirements. Combining subject-collecting specializations within a collective collection setting could create complementary collections both within a group of art library partners, or across a mixed group of art libraries and other types of institutions.

The significant holdings of specialized art research materials like auction catalogs, artist files, and exhibition catalogs, along with the known challenges of managing them, suggests collaborative opportunities between art libraries in regard to more efficiently managing these special categories of materials.²¹

Art library partnerships improve access to art research materials

The central mission of art research libraries is to provide access to their collections and expertise in support of art research. Our analysis points to opportunities to further this mission through collaborative effort.

Art libraries specialize in art-related subjects, but these subjects are often contextualized by non-art-focused topics collected heavily by institutions outside the art library community. Collaborations between art libraries and other types of collecting institutions that improve access to this wide range of materials (and possibly widely distributed collecting strengths) directly supports the interdisciplinary nature of art research.

Hyperlocal materials like artist files represent unique local collecting strengths and specializations vis-à-vis a group, regional, or even international context. Collection analysis that determines which portion of local holdings are unique within the broader context of a collective collection can pinpoint collaborative opportunities to make these materials more visible and accessible to the community of art research scholars.

Overall proxy group sharing patterns indicate a need for access to complementary rather than similar library collections. Fifty-eight percent of what proxy group members borrowed and loaned fell outside the LCC class for Fine Art, and 93% of the materials shared were not already owned by the borrower. This is a clear indication that specialized art research libraries are seeking to expand the universe of materials to which their patrons have access and are already partnering with other types of libraries in order to do so.

Final thoughts

The findings presented in this report illustrate the immense value of art research collections—their uniqueness, utility to a broad range of institutions and disciplines, and local strengths and specializations of all libraries, all adding up to an art research collective collection whose richness in scope and depth reflects the art practices and communities that it documents. Institutional art research collections are indispensable to scholarship and learning. Collaborative partnerships built around a view of an art research collective collection can elevate the visibility of local art resources, improve the efficiency of stewardship efforts, and most importantly, make art research materials more widely available for use.

It is our hope that this report shares an approach that will inspire art libraries and their potential collaborators to action in assessing and shaping their own partnerships to serve their unique missions and priorities. Whether through collection, ILL, or other quantitative analysis about their holdings and activities, art libraries can use thoughtful analysis to inform collaborative futures that serve their collections, researchers, and the broader art research community.

ACKNOWLEDGMENTS

KRESS

The Operationalizing the Art Research Collective Collection (OpArt) project was supported through a grant by the [Samuel H. Kress Foundation](#), with significant co-investment from OCLC.

We would like to thank the project advisory committee for their invaluable guidance and perspectives, which helped frame the collective collections and resource sharing analyses, identify case study partners, interpret results, and strengthen the report.

Members of the advisory committee:

- Jon Evans, Chief of Libraries and Archives, Museum of Fine Arts, Houston
- Rebecca Friedman, Assistant Librarian, Marquand Library of Art & Archaeology, Princeton University
- Roger Lawson, Executive Librarian, National Gallery of Art
- Autumn Mather, Director, Ryerson and Burnham Libraries, Art Institute of Chicago
- Keli Rylance, Head Librarian, Richardson Memorial Library, Saint Louis Art Museum
- Lori Salmon, Head, Institute of Fine Arts Library, New York University
- Kathleen Salomon, Chief Librarian, Associate Director, Getty Research Institute
- Tony White, University Librarian, OCAD University

From the initial idea through the research phase to publication, we are grateful to the many individuals who contributed their expertise and insights.

The concept for this project originated in a discussion between Research Library Partnership (RLP) members and OCLC Research at the 2019 Art Libraries Society of North America (ARLIS/NA) Conference. The participants of that discussion sparked the idea, and the attendees of the 2022 ARLIS RLP roundtable session provided feedback at the midpoint of the project.

Directors of the art libraries in the RLP provided valuable input during the early days of the project:

- Stephen Bury, Andrew W. Mellon Chief Librarian, The Frick Collection
- Jon Evans, Chief of Libraries and Archives, Museum of Fine Arts, Houston
- Emily Guthrie, Librarian, The Library Company of Philadelphia (*previously Library Director, Winterthur Museum, Garden & Library*)
- Roger Lawson, Executive Librarian, National Gallery of Art
- Autumn Mather, Director, Ryerson and Burnham Libraries, Art Institute of Chicago
- Amelia Nelson, Director, Library and Archives, The Nelson-Atkins Museum of Art
- Susan Roeper, retired (*previously Library Director, Clark Art Institute*)
- Keli Rylance, Head Librarian, Richardson Memorial Library, Saint Louis Art Museum

- Kathleen Salomon, Chief Librarian, Associate Director, Getty Research Institute
- Heather Saunders, Dean of Libraries and Archives, Acadia University (*previously Director, Ingalls Library, Cleveland Museum of Art*)
- Kenneth Soehner, Arthur K. Watson Chief Librarian, Thomas J. Watson Library, The Metropolitan Museum of Art
- Heather Topcik, Director of Research Collections, Bard Graduate Center

Sal Hamerman at Princeton University and Sara Osborne-Bender at the National Gallery of Art helped us to develop our collective collection analysis approach by sharing their knowledge about the cataloging of art research materials.

Several OCLC colleagues provided guidance and support in the preparation of this report. Our project teammate Mercy Procaccini helped drive the work of the project forward, coordinated with internal and external stakeholders, and workshopped ideas and edits to the final report. Ixchel Faniel, Rachel Frick, Shane Huddleston, Lesley Langa, and Constance Malpas offered valuable input at the project proposal and report proposal stages. Andy Breeding and Titia van der Werf reviewed manuscript drafts, generously providing detailed and thoughtful comments that strengthened the final report. Tony Melvyn pulled and assembled the WorldShare ILL data used for the interlibrary loan analysis. Ellen McCarthy supplied holdings symbol data for the project.

The report could not have been published without the committed effort, skill, and professionalism of the OCLC Research communications team, including Erica Melko, Jeanette McNicol, and JD Shipengrover, with guidance from Sharon Streams.

This work was made possible by the senior leadership of OCLC; the authors would like to thank Lynn Silipigni Connaway, Executive Director, Research; Rachel Frick, Executive Director, Research Partnerships and Engagement; and Chip Nilges, Vice President, Business Development, Membership and Research, for their ongoing support.

APPENDIX: PROXY GROUP

- American Craft Council Library & Archives
- Amon Carter Museum of American Art, Research Library*
- Art Gallery of Ontario, Edward P. Taylor Library & Archives
- Art Institute of Chicago, Ryerson and Burnham Libraries*
- Art Library, The John and Mable Ringling Museum of Art*
- ArtCenter Library*
- Artexte Information Centre
- Asian Art Museum of San Francisco, C. Laan Chun Library Center
- Autry Museum of the American West, Library and Archives
- Baltimore Museum of Art, E. Kirkbride Miller Art Research Library
- Banff Center for Arts and Creativity, Paul D. Fleck Library and Archives*
- Bard Graduate Center Library*
- Barnes Foundation, Honickman Library
- Birmingham Museum of Art, Clarence B. Hanson, Jr. Library & Archives*
- Boston Architectural College Library
- Brooklyn Museum Libraries*
- Centre Canadien d'Architecture / Canadian Centre for Architecture
- Cincinnati Art Museum, Mary R. Schiff Library & Archives*
- Clark Art Institute Library*
- Cleveland Museum of Art, Ingalls Library and Museum Archives*
- Corning Museum of Glass, Juliette K. and Leonard S. Rakow Research Library*
- Craft in America Center Library
- Crystal Bridges Museum of American Art Library
- Dallas Museum of Art, Mildred R. and Frederick M. Mayer Library*
- Delaware Art Museum, Helen Farr Sloan Library & Archives
- Detroit Institute of Arts Research Library & Archives*
- Dumbarton Oaks Research Library*
- Eiteljorg Museum of American Indians and Western Art, Watanabe Family Library
- Fashion Institute of Technology, Gladys Marcus Library*
- Fine Arts Library, Harvard University

* Proxy group institutions with OCLC Interlibrary Loan (ILL) data included in the project's ILL analysis

- Freer Gallery of Art and Arthur M. Sackler Gallery Library*
- The Frick Collection, Frick Art Reference Library*
- George Eastman Museum, Richard and Ronay Menschel Library*
- Getty Research Institute*
- The Heard Museum, The Billie Jane Baguley Library and Archives
- Honolulu Museum of Art, Robert Allerton Art Library
- The Huntington Library, Art Museum, and Botanical Gardens*
- Indianapolis Museum of Art at Newfields, Stout Reference Library*
- Institute of American Indian Arts Library*
- Kansas City Art Institute, Jannes Library*
- Kendall College of Art and Design Library*
- Kimbell Art Museum Library*
- Laguna College of Art + Design, Dennis and Leslie Power Library*
- Lesley University College of Art and Design Library
- Los Angeles County Museum of Art, Mr. and Mrs. Allan C. Balch Art Research Library*
- Maryland Institute College of Art, Decker Library*
- The Menil Collection Library*
- Millard Sheets Library, Otis College of Art and Design
- Minneapolis College of Art and Design Library
- Mint Museum Library*
- Morris Museum of Art, Center for the Study of Southern Art
- Museum of Fine Arts, Houston, Hirsch Library*
- The Museum of Modern Art Library*
- National Gallery of Art Library*
- National Gallery of Canada Library and Archives*
- National Museum of Women in the Arts, Betty Boyd Dettre Library and Research Center
- The Nelson-Atkins Museum of Art, Spencer Art Reference Library *
- New York School of Interior Design Library
- New York University, Institute of Fine Arts Library
- North Carolina Museum of Art Library
- NSCAD University Library
- OCAD University, Dorothy H. Hoover Library*

* Proxy group institutions with OCLC Interlibrary Loan (ILL) data included in the project's ILL analysis

- Ogden Museum of Southern Art, Patrick F. Taylor Library
- Packard Library, Columbus College of Art & Design
- Philadelphia Museum of Art Library*
- Philbrook Museum of Art, H. A. & Mary K. Chapman Library*
- Phillips Library, Peabody Essex Museum
- Portland Art Museum, Anne and James F. Crumpacker Family Library
- Rhode Island School of Design, Fleet Library*
- Richardson Memorial Library, Saint Louis Art Museum*
- San Francisco Museum of Modern Art Library*
- Savannah College of Art and Design Library*
- School of Visual Arts Library*
- Seattle Art Museum Libraries
- Smithsonian American Art and Portrait Gallery Library
- Southern California Institute of Architecture, Kappe Library
- Thomas J. Watson Library, The Metropolitan Museum of Art*
- Virginia Museum of Fine Arts, Margaret R. and Robert M. Freeman Library & Special Collections*
- Visual Art Library
- Walker Art Center Archives + Library*
- Walters Art Museum Library
- Whitney Museum of American Art, Frances Mulhall Achilles Library and Archives
- William Morris Hunt Memorial Library, Museum of Fine Arts, Boston*
- Winterthur Museum, Garden & Library*
- Worcester Art Museum Library*

* Proxy group institutions with OCLC Interlibrary Loan (ILL) data included in the project's ILL analysis

NOTES

1. American Alliance of Museums. 2022. "National Snapshot of COVID-19 Impact on United States Museums (fielded December 2021-January 2022)." *American Alliance of Museums* (blog), 8 February 2022. <https://www.aam-us.org/2022/02/08/national-snapshot-of-covid-19-impact-on-united-states-museums-fielded-december-2021-january-2022/>.
2. Lavoie, Brian. 2022. *Library Collaboration as a Strategic Choice: Evaluating Options for Acquiring Capacity*, 1. Dublin, OH: OCLC Research. <https://doi.org/10.25333/mt16-0c57>.
3. Art Libraries Society of North America (ARLIS/NA), 47th Annual Conference, Salt Lake City, Utah, 28 March 2019. <https://arlisna2019.sched.com/event/KLBv/oclc-research-library-partnership-roundtable-luncheon>.
4. The OCLC Research Library Partnership (RLP) is a transnational collaborative network formed to address issues of collective interest to research libraries.
5. Lavoie, Brian, Lorcan Dempsey, and Constance Malpas, 2020. "Reflections on Collective Collections," *College & Research Libraries* 81(6): 981-996. <https://doi.org/10.5860/crl.81.6.981>.
6. The Artist Files Working Group ARLIS/NA, 2010. Artist Files Revealed: Documentation and Access, 4. Art Libraries Society of North America, 2010. https://assets.noviams.com/novi-file-uploads/arlisna/pdfs-and-documents/research_and_reports/artist_files_revealed.pdf.
7. The report authors would like to thank Sal Hamerman at Princeton University and Sara Osborne-Bender at the National Gallery of Art for sharing their expertise on this topic.
8. Lavoie, Brian. 2019. *The US and Canadian Collective Print Book Collection: A 2019 Snapshot*. Dublin, OH: OCLC Research. <https://doi.org/10.25333/7zjv-jv94>.
9. Wikipedia. "Italian Renaissance." Last edited on 17 December 2022, at 15:20 (UTC). https://en.wikipedia.org/wiki/Italian_Renaissance.
10. This analysis was limited to subject headings appearing in subfield \$a of instances of the MARC 650 (topical) subject field. Subject headings were normalized to mitigate differences in spacing, capitalization, punctuation, etc., to aid in comparison.
11. This term is one of many outdated subject headings used to classify topics relating to Indigenous peoples in North America. Its use in many contexts is inaccurate and offensive: "The uncritical use of the label 'Indian' not only casts a monolithic identity for Indigenous Peoples, it has little application to many who do not identify themselves as 'Indian.'" See Yellow Bird, Michael. 1999. "What We Want to Be Called: Indigenous Peoples' Perspectives on Racial and Ethnic Identity Labels," 4. *American Indian Quarterly* 23, no. 2 (Spring): 1-21. <https://doi.org/10.2307/1185964>;
See also, Frick, Rachel L., and Merrilee Proffitt. 2022. *Reimagine Descriptive Workflows: A Community-informed Agenda for Reparative and Inclusive Descriptive Practice*. Dublin, OH: OCLC Research. <https://doi.org/10.25333/wd4b-bs51>.

12. Malpas, Constance, and Brian Lavoie. 2016. *Strength in Numbers: The Research Libraries UK (RLUK) Collective Collection*, 16. Dublin, OH: OCLC Research. <https://doi.org/10.25333/C3N33J>.
13. Lavoie, Brian, Lorcan Dempsey, and Constance Malpas, 2020. "Reflections on Collective Collections," *College & Research Libraries* 81, no. 6 (September): 981-996. <https://doi.org/10.5860/crl.81.6.981>.
14. We thank our colleague Andy Breeding for suggesting this term.
15. "Art Discovery Group Catalogue: Research Gateway to Art Literature." n.d. Art Discovery. Accessed 10 January 2023. <https://artdiscovery.net/>.
16. Clarke, Sherman. 2011. "Class N, or, Classifying the Fine Arts Using the Library of Congress Classification," 23. *Art Libraries Journal* 36(4): 22-25. <https://doi.org/10.1017/S0307472200017168>.
17. Smith, Rochelle. 2015. "Thinking and Making: Art and Craft in Library of Congress Classification," 5. *Library Philosophy and Practice* (e-Journal) December. <https://digitalcommons.unl.edu/libphilprac/1299/>.
18. Webster, Kelly, and Ann M. Doyle. 2008. "Don't Class Me in Antiquities! Giving Voice to Native American Materials," In *Radical Cataloging: Essays at the Front*, 189-197. Edited by K.R. Roberto, with an introduction by Sanford Berman. Jefferson, NC: McFarland and Co. <https://doi.org/10.14288/1.0077956>.
19. WorldShare Interlibrary Loan automates your interlibrary borrowing and lending processes though the largest resource-sharing network in the world to save your staff time and to ensure timely delivery of items to the people who need them. <https://www.oclc.org/en/worldshare-ill.html>.
20. SHARES is a resource sharing consortium that features a mix of academic and special libraries located primarily in the US, Canada, and the United Kingdom. The SHARES group includes a formal resource sharing agreement, a culture that emphasizes trust and liberal lending policies, and a requirement that physical items be shipped via expedited courier, with tracking and insurance. <https://www.oclc.org/research/activities/shares.html>.
21. For a discussion of the challenges of managing two material types common to art libraries, and past collective effort to address them, see:

The Artist Files Working Group ARLIS/NA. 2010. *Artist Files Revealed: Documentation and Access*. *Art Libraries Society of North America*, 2010. https://assets.noviams.com/novi-file-uploads/arlisna/pdfs-and-documents/research_and_reports/artist_files_revealed.pdf;

Back, Andi. 2018. "The Collecting Practices for Art Exhibition Catalogs at Academic Libraries in the United States and Canada." *Art Documentation: Journal of the Art Libraries Society of North America* 37, no. 1 (March): 104-18. <https://doi.org/10.1086/697272>.

An impressionistic landscape painting featuring a vibrant yellow and green field under a blue sky. A dark, winding path or stream flows through the lower portion of the scene. The brushstrokes are visible and expressive, creating a sense of movement and light.

For more information about our work related to
Operationalizing the Art Research Collective Collection,
please visit: **oclc.org/art-collective-collection**



6565 Kilgour Place
Dublin, Ohio 43017-3395

T: 1-800-848-5878

T: +1-614-764-6000

F: +1-614-764-6096

www.oclc.org/research

ISBN: 978-1-55653-276-4
DOI: 10.25333/v6336-pe98
RM-PR-217100-WWAE 2302