EAST by Northeast

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Introduction

Beginning in 2012, academic and research libraries across the Northeast initiated planning for the development of a collaborative regional program to define and manage retention agreements for infrequently used monographs and journals. The planning focused on the development of retention agreements among the libraries in order to ensure that valuable library resources continue to be available to scholars and researchers while allowing libraries the confidence to make informed decisions about deselection. This project, later named EAST for the "Eastern Academic Scholars' Trust", is now well under way with generous funding from both the Andrew W. Mellon Foundation and the Davis Educational Foundation. As of late 2015, 48 libraries across the Northeast and extending as far south as Maryland are participating in EAST.

The primary goals of EAST are straightforward:

- Share stewardship of library print holdings to ensure more effective preservation of the scholarly record, particularly as more and more of the EAST libraries need to alleviate space pressures.

- Provide access and delivery of the shared materials to meet the needs of scholars, researchers, teachers and their students.

EAST has established policies and procedures that allow libraries to commit to retain titles in local collections for an agreed upon period of time. The EAST retention program is designed to serve a core collaborative function: institutions declare commitments to retain and make accessible portions of the scholarly record, allowing partner libraries to make informed decisions about deselection. This report "from the field" describes the genesis of EAST, the work done to date [as of February, 2016], and plans for the future.

The Problem

Although academic and research libraries have increasingly shifted their collection development to electronic content, these libraries must still accommodate continued growth of their print collections. Reports from the National Center for Education Statistics Academic Library Survey (NCES ALS) confirm that 4-year colleges and universities in the U.S. collectively added between 19 million and 25 million print volumes

each year between 2006 and 2012 while at the same time e-book collections tripled.[1]

During this period the same libraries were increasingly asked to repurpose space to create environments to serve group collaboration, offer technology services such as 3D printing, support evolving forms of digital scholarship, and more. And despite growing print collections, investment in expansion of space limited solely to stacks of print books is all but impossible. While some libraries have the financial resources and available real estate to invest – either singly or, more likely collaboratively – in off-site storage facilities to house their growing collections, most must face weeding these collections, sometimes in major ways.

Boston to Washington

The 2012 OCLC Research report, *Print Management at Mega-Scale* calculates that the academic libraries in the northeast U.S. "account for nearly 60 percent of the entire North American print book collection."[2] This so-called "BosWash" corridor is also the richest in density of colleges and universities making it an ideal region for collaborative retention of print collections.

And, while some libraries in the region – most notably those in Maine and the ConnectNY consortium – have already engaged in some form of shared print retention, most libraries in BosWash were not participating in any such programs prior to the establishment of EAST despite librarians having acknowledged for many years that only a coordinated approach to print retention was likely to truly offer solutions to the ongoing management of scholarly content.

By undertaking the EAST project, its member libraries make a commitment to this long-term management with the goal of reducing the risk of cultural and historical loss. By carefully and systematically analyzing the print collections of the member libraries, EAST can determine both those titles it is most important to protect and those titles which, whether because they are so widely held or because they are so seldom used or both, can safely be deselected from the members' collections. And, by engaging in sample-based validation of the likely existence and availability of a given title in these collections,

EAST can provide faculty and scholars with further confidence that the titles will be available and accessible for ongoing scholarly work.

Once the work of analysis and validation has determined the long-term retention commitments that are to be made by the EAST retention partners, the member libraries can, when necessary, withdraw less-used print titles from their local collections freeing up valuable space for other uses. And, on an ongoing basis, libraries can make decisions about keeping or withdrawing titles without risking that they will be discarding the last copy.

The Formative Period

EAST evolved from a planning effort spearheaded by Five Colleges, Incorporated and supported by an Officers' Grant from the Mellon Foundation in 2012. Over the course of about 18 months, discussions and meetings among some 100 college and university librarians in the Northeast investigated interest in creation of a shared print service and business models that would support such a service. Lizanne Payne, shared print consultant, assisted in the discussions and has continued as the consultant on EAST playing a pivotal role in the organizational development of the project.

This planning process resulted in a number of important policy decisions that EAST is now reviewing for incorporation into the agreement that will form the basis of the libraries' retention commitments. These policies include:

- EAST will be a decentralized print retention program with titles stored *in situ* by member libraries

- The business model for EAST will support both Retention Partners, who will participate in the collection analysis and be willing to make formal commitments to retain titles in their local collections, and Supporting Partners, who will provide financial support for EAST but not commit to retention

- EAST members will provide access, via standard inter-library loan services, to re-

tained titles to users at any other EAST member library

- EAST will develop and evolve a business model for sustainability.

At the conclusion of this planning process, well over 30 libraries in the region indicated they were willing to make a commitment, including a financial investment, in the formation of what became EAST. It was clear, however, that the systematic collection analysis required to determine retention commitments for monographs would require a major financial investment on the part of EAST and additional external funding to support this analysis as well as other components of the EAST project as it evolved would be required.

So, in late 2014 the Boston Library Consortium (BLC), many of whose members had actively participated in the planning process, agreed to take over as administrative and fiscal agent for EAST, as it had been named. By June 2015, the funding needed to begin active implementation and organizational development of EAST was in place and by the fall of 2015 the current EAST staff: Anna Perricci, Project Manager; Sara Amato, Data Librarian; Lizanne Payne, Consultant; was in place. As of January 2015 EAST had grown to 44 academic/research libraries and is now 48 libraries strong with members in New England, New York, Pennsylvania, and Maryland.

Governance of EAST

In concert with hiring of the EAST project team, the Project Director (Susan Stearns of the BLC), the two co-PI's on the Mellon Foundation funded grant (John Unsworth of Brandeis University and Laura Wood of Tufts University), and Lizanne Payne, the shared print consultant, worked with the membership of EAST to elect an Executive Committee (EC). The EC provides governance and oversight of EAST, and includes representatives from public and private schools, from those with large and small collections, as well as librarians already involved in shared print through their local consortia.

Following their election, the EC appointed two working groups:

- A Monographs Working Group was established to help shape the collection analysis scenarios (described further below) that will determine the retention commitments, as well as work with the EC to determine policy recommendations to be incorporated into the formal agreements across the membership. This group includes representatives from the EAST member libraries with expertise in collection development as well as access services.

- A Validation Working Group was established to work closely with the EAST team as well as an outside statistical consultant to develop and test a two-part sample-based validation study focused on inventory confirmation. These studies, which are important to ensuring confidence and trust in the retention commitments made across the EAST libraries, are described in further detail below.

Collection Analysis

Key to the accomplishment of EAST's goals is the important work of collection analysis. During the planning phase described above, the libraries solicited proposals from qualified vendors to complete the analysis of the large (then expected to be about 20 million print monograph titles) collections across EAST member libraries. OCLC's Sustainable Collections Services (SCS) was selected as the vendor of choice based on their expertise and experience, particularly in working with other large groups of libraries.

Beginning immediately after the grant funding was confirmed, the EAST project team worked with SCS to deliver collection data extracts from the 40 EAST member libraries that are participating in the collection analysis. This includes libraries completing an analysis of their print monograph collections for the first time as well as some EAST members who have either recently completed a similar analysis or are part of an existing shared print program already (in Maine or ConnectNY). By the end of October 2015, all 40 of the libraries had provided a data extract to SCS. In addition to bibliographic and item level

information, the libraries also provided usage data to SCS, which later will allow analysis based on usage across the EAST libraries as well as usage analysis by an individual participating library in support of local collection decisions.

The initial EAST collection analysis is focused on circulating print monograph titles and excludes journals (which will be considered as a subsequent phase of the EAST project) as well as special collections, non-circulating titles, e-books, government documents, non-book titles, and theses and dissertations. As of February 2016, the combined collective holdings of EAST partners include over 17 million circulating print monographs.

Once SCS completes work to filter and normalize the data it received, it rolls up the data and loads it into an online collection analysis tool that it developed called GreenGlass. As of February 2016, the EAST project team is working with SCS on the rollout of GreenGlass to the EAST members. This online tool will first be made available to the EAST Monographs Working Group, which will use the GreenGlass "group" features to build and evaluate a variety of retention models. These models use specific attributes of the libraries' holdings (e.g., overlap across EAST or the region or the world, amount or recency of usage, publication years) to identify matching holdings that could be candidates for retention decisions.

Using GreenGlass, the Monographs Working Group will, over the next few months, iterate different models, evaluate their appropriateness for EAST based on equity and other criteria, and make a recommendation on one or more retention models to the Executive Committee and full EAST membership for adoption.

Shortly after the Monographs Working Group begins to use GreenGlass and the model builder, all of the EAST libraries participating in the collection analysis will have access to their local library's GreenGlass instance. This will allow them to review the sample retention models being developed and reviewed by the Monographs Working Group as well as further analyze and understand their local collection. GreenGlass can provide a variety of views into the library's

circulating print monograph collection as well as perspectives that compare local collections to those of other comparator groups.

One major advantage of working with SCS is their experience in working with groups similar to, albeit usually smaller than, EAST. As part of the rollout of GreenGlass both to the Monographs Working Group and the individual EAST member libraries, SCS will populate the model builder with a few examples of retention models similar to those already implemented by other library groups with whom they have worked. This will allow EAST to take advantage of and build on the work and learning of these other groups.

Validation Sample Studies

Verification of the existence and condition of titles in distributed circulating collections, known in the shared print world as "validation", can be important to build trust among partner libraries and their local stakeholders that retained copies will, in fact, be available and usable.

However, validation efforts could span a spectrum of goals with increasing levels of effort and cost:

- First is basic inventory confirmation, i.e., is the title actually on the shelf or otherwise accounted for?

- Second, a condition review could be done, i.e., is the physical volume in good enough condition to support ongoing use?

- Finally, a bibliographic review can be undertaken, i.e., is the volume actually as described in the cataloging metadata?

EAST's plan for a two-part sample-based validation study is a distinctive component of the EAST shared print program. Because of the size and dispersion of the EAST libraries' collections, a complete validation of the libraries' collections was clearly impossible, both in terms of time and money. Based on the small number of group monograph retention projects completed to date, libraries have agreed to retain between 15% and 50% of their print collections. Even if EAST

were to finalize retention at the lower end of this spectrum, say 20%, that would require review of close to 4 million volumes, which is clearly impractical. For this reason, EAST like other monograph programs does not require that Retention Partners perform validation on individual retained volumes.

However, a sample-based approach using a statistically sound methodology should provide EAST libraries with some measure of trust and confidence and inform models for retention across the EAST libraries. Since EAST is primarily a retention-focused project and is not envisioned as a full-scale preservation effort, the initial validation across the EAST libraries will look primarily at inventory confirmation.

Validation Sample Study One

Working with a statistical consultant and in consultation with the Validation Working Group, the EAST team has designed a sample-based validation study across the 40 EAST libraries that will:

- Determine an "availability metric" for each of the libraries,

- Provide insight into the condition of titles at the libraries.

Using a random sample of 6,000 titles drawn from the data submitted to SCS (this sample size was determined to be statistically valid assuming that at least 90% of monographs can be accounted for at most libraries with a 2% margin of error), each library will check the shelves for each book in the sample in order to validate presence of titles and perform a basic condition review of the located items present. Each library is being compensated for this work at a standard rate, paid for through grant funds. This first validation study is commencing in February 2016 as this article is being written and will be completed in late April.

Upon completion, each library will know its own availability metric. Analysis across the libraries will provide EAST with all libraries' data in aggregate, including the mean, mode, median and variance across the sample.

While specifics of how these availability metrics will inform retention are yet to be determined, it is likely that this information will influence the number of copies to be retained throughout EAST. EAST also expects this validation data to be of great interest to the library community and plans to disseminate aggregated information upon completion of the studies.

To support efficient data collection for the first sample validation study, the EAST Data Librarian, Sara Amato, worked closely with members of the Validation Working Group to design a web-based tool. The tool, a screen shot of which constitutes Figure 1 at the end of this article, supports download of the randomized sample lists for each library. Prior to using the tool for data collection, most libraries will have had an opportunity to run the randomized list of 6,000 titles against their ILS to mark any items currently in circulation so that only items that are expected to be found present will be downloaded to the tool. If this automated checking has not been possible at a library, the tool supports the ability to do a manual "Check Catalog" upon completion of a group of items either during or following the check of the shelves.

To use the tool, a student or staff worker specifies the number of items they wish to check during that session and those items are loaded in order by location and call number. Using a tablet, laptop, or workstation with an attached barcode scanner, the worker locates and scans the first volume in the list. If the scanned item matches the expected sample item, the tool automatically updates the status as present. The worker is then asked to do a brief condition check of the item to determine whether its condition is poor, good/acceptable, or excellent. The EAST team and the Validation Working Group developed documentation and a short video to provide training to the workers to simplify this check.

Although access to wifi is required for the initial download of the items to be checked and to upload the list once the checking is complete, the actual barcode scanning and condition checking can be done completely offline. The tool is also

designed to support multiple concurrent users so that libraries can use their staff as appropriate locally.

Because the data collection tool reports back results in real time as groups of items checked are submitted, the EAST team will have real-time access to the availability metrics across the EAST libraries. Following completion of the data collection, which is expected to end April 22, 2016, results (anonymized except for reporting to the local library) will be shared across the EAST membership. And, as indicated above, findings from the study will both inform retention commitments made by EAST as well the second validation study planned for the EAST project.

Validation Sample Study Two

Building on the findings of the first sample validation study, EAST will undertake a second phase of validation aimed at better understanding what level of redundancy (number of titles retained) offsets the risk of low inventory while avoiding levels of duplication that are statistically unlikely to make a difference in ensuring the existence of a usable copy.

Details of the second validation study are still to be determined and will be informed by lessons learned in the first study. This second study will focus only on items committed for retention, however, and is likely to require a smaller sample size. We expect the study to draw a stratified sample across all of the titles planned for retention; each stratum representing a different level of redundancy, i.e., 4 copies, 5 copies, 6 copies… . This second validation sample study will identify whether the amount of redundancy across EAST has any bearing on the availability or condition of those items, i.e., are more popular items (more copies) more or less likely to be missing or in poor condition? An understanding of any such redundancy effect may influence the number of copies to retain within EAST.

The overall goal of this validation study is to establish and document the degree of confidence and the possibility of error in any EAST member's commitment to retain a particular title. Financially, this research which is completely grant funded should also tell us initial and ongoing costs of providing different levels of con-

fidence in a shared print retention agreement based in circulating collections. Our goal is to find the balance between confidence and costs, that is, a financially sustainable model of validation that provides sufficient confidence to allow for responsible deselection by member libraries.

The EAST project team expects that both of the sample validation studies will inform future undertakings by libraries, either individually or as groups, to address the important questions of validation. And, to better understand the work, time, and funding required to perform validation sampling across large, diverse and geographically dispersed collections. While a small number of other shared print initiatives have undertaken validation studies of their own, none have been on the scale of EAST. We hope the work of the EAST team and the valuable input and feedback from the member libraries as they undertake the validation sample studies in their local libraries contribute to future work in this area.

Clearly there will be much more that can be learned as we try to best develop a measure that indicates consortial confidence. As the EAST project continues, we expect there may be further opportunities to integrate ongoing validation in one way or another, particularly should EAST grow with the addition of new libraries in the future.

Retention Commitments and the Future of EAST

Throughout the spring of 2016, EAST libraries will consider a variety of retention scenarios to prioritize holdings to be retained. When the final retention models are approved and decisions made about how to make use of the availability metrics, SCS will run an allocation process to propose retention commitments equitably across all EAST Retention Partners. These libraries will then have an opportunity to review and exclude any holdings for which they do not wish to make a retention commitment. After that point, SCS will finalize the EAST retention commitments in GreenGlass and the libraries will disclose their commitments in WorldCat. Current work being done by OCLC and others will, we hope, simplify the work required for EAST to

update local and consortial catalogs as well as WorldCat to reflect the commitments made.

In parallel with this work, EAST libraries will agree to policies relating to their partnership, policies that govern not only retention and discovery of retained titles, but access and delivery of materials.

When the first round of retention decisions is completed with the first cohort of EAST members, we anticipate opportunities to expand EAST to other libraries in the region. We have already received inquiries from libraries interested in joining the next EAST cohort in 2017.

In addition, EAST will turn its attention to journal retention after the first round of monograph retentions have been determined. A number of EAST members are very interested in identifying journals to retain across the membership, and a new initiative will be launched to define the process for selecting which journals will be the focus of EAST efforts.

EAST also plans to explore collaboration with other shared print initiatives that are evolving across the North American library landscape. With funding from the Mellon Foundation, EAST will host a workshop in fall 2016 to identify issues and options for formal reciprocal agreement(s) between EAST and other programs.

EAST is noteworthy among the growing community of shared print programs:

- EAST will be the largest shared print monograph program to reach implementation to date, measured by number of participating libraries and number of retained volumes.

- EAST is the first large-scale monograph program to explore the role of volume availability and condition in its retention decisions, using an innovative validation sampling methodology.
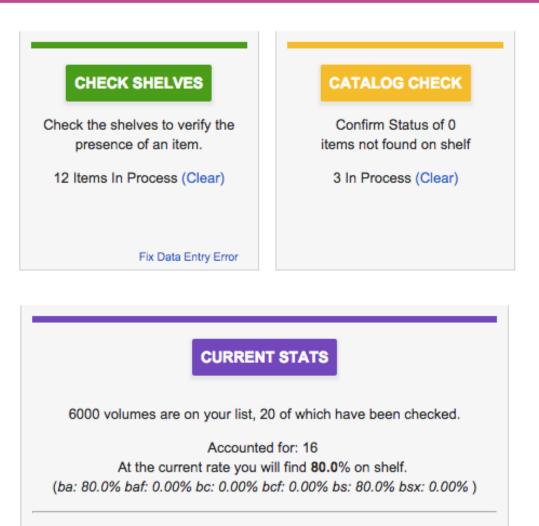
The success of EAST will secure a substantial portion of the scholarly record that is held in the northeastern United States, and will position EAST to serve as the cornerstone of the emerging national shared print network.

Figure 1. The Data Collection Tool being used by library workers to complete the first EAST validation sample study.

EAST Validation Study Sample College Library

CHECK SHELVES

Check the shelves to verify the presence of an item.

12 Items In Process (Clear)

Fix Data Entry Error

CATALOG CHECK

Confirm Status of 0 items not found on shelf

3 In Process (Clear)

CURRENT STATS

6000 volumes are on your list, 20 of which have been checked.

Accounted for: 16
At the current rate you will find **80.0%** on shelf.
(ba: 80.0% baf: 0.00% bc: 0.00% bcf: 0.00% bs: 80.0% bsx: 0.00%)

87.5% of the accounted for items are physically present on the shelf.

Items remaining to be checked, by location:

ba	783
baf	292

Endnotes

[1] Data available at National Center for Education Statistics (NCES) Library Statistics Program. Academic Libraries 2012 First Look (https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2014038) and Academic Libraries 2006 First Look (https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2008337).

[2] Brian Lavoie, Constance Malpas and JD Shipengrover. 2012. Print Management at "Mega-scale": A Regional Perspective on Print Book Collections in North America. Dublin, Ohio: OCLC Research. http://www.oclc.org/research/publications/library/2012/2012-05.pdf, p. 23.