

Fall 9-15-2019

Transforming Acquisitions and Collection Services

Michelle Flinchbaugh

Chuck Thomas

Rob Tench

Vicki Sipe

Robin Barnard Moskal

See next page for additional authors

Follow this and additional works at: https://docs.lib.purdue.edu/purduepress_ebooks

 Part of the [Collection Development and Management Commons](#)

Recommended Citation

Flinchbaugh, Michelle, et al. *Transforming Acquisitions and Collection Services: Perspectives on Collaboration Within and Across Libraries*. (2019). Purdue University Press. (Knowledge Unlatched Open Access Edition.)

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries. Please contact epubs@purdue.edu for additional information.

Authors

Michelle Flinchbaugh, Chuck Thomas, Rob Tench, Vicki Sipe, Robin Barnard Moskal, Lynda L. Aldana, and Erica A. Owusu

Transforming Acquisitions and Collection Services

**CHARLESTON INSIGHTS IN LIBRARY, ARCHIVAL, AND INFORMATION
SCIENCES EDITORIAL BOARD**

Shin Freedman

Tom Gilson

Matthew Ismail

Jack Montgomery

Ann Okerson

Joyce M. Ray

Katina Strauch

Carol Tenopir

Anthony Watkinson

Transforming Acquisitions and Collection Services

**Perspectives on Collaboration
Within and Across Libraries**

Edited by

Michelle Flinchbaugh

Chuck Thomas

Rob Tench

Vicki Sipe

Robin Barnard Moskal

Lynda L. Aldana

Erica A. Owusu

**Charleston Insights in
Library, Archival, and Information Sciences**

**Purdue University Press
West Lafayette, Indiana**

Copyright 2019 by Purdue University.
Printed in the United States of America.

Cataloging-in-Publication data is on file with the Library of Congress.

Paper ISBN: 978-1-55753-845-1

Epub ISBN: 978-1-61249-579-8

Epdf ISBN: 978-1-61249-578-1

An electronic version of this book is freely available, thanks to the support of libraries working with Knowledge Unlatched. KU is a collaborative initiative designed to make high-quality books Open Access for the public good. The Open Access ISBN for this book is 978-1-55753-847-5.

Contents

Introduction	<i>xi</i>
<i>Chuck Thomas</i>	
PART 1	1
Collaborations Between Acquisitions and Collection Management	
<i>Edited by Rob Tench</i>	
CHAPTER 1	5
Collaborative Forecasting When the Crystal Ball Shatters: Using Pilot Programs to Frame Strategic Direction	
<i>Lynn Wiley and George Gottschalk</i>	
CHAPTER 2	29
Case Study at The University of Southern Mississippi: Merging the Acquisitions and Collection Management Positions	
<i>Jennifer R. Culley</i>	
CHAPTER 3	39
Acquisitions and Collection Management Collaborations: Weathering the Storm With Stagnant Budgets and Unpredictable Vendor Landscapes	
<i>Delphia Williams and Christina Mayberry</i>	
CHAPTER 4	47
Collaborative Collection Development: Leveraging the Skills of Cataloging Staff to Perform Collection Development	
<i>Scott Piepenburg</i>	

PART 2	55
Collaborations Between Acquisitions and Cataloging <i>Edited by Vicki Sipe</i>	
CHAPTER 5	61
Developing New Collaborations Between Acquisitions and Cataloging at American University: Rapid Cataloging and More <i>Stacey Marien and Alayne Mundt</i>	
CHAPTER 6	71
Case Study of the University of New Mexico's Integration of Workflows in WMS <i>Laura Kohl, Chris R. Johnson, and Sever Bordeianu</i>	
CHAPTER 7	85
The Times They Are A-Changin': Workflow Collaboration in the Information Age <i>Lisa Kallman Hopkins</i>	
CHAPTER 8	101
Partnering for Change: Collaboration Between Acquisitions and Cataloging at the University of Maryland Libraries <i>Bria Parker, L. Angie Ohler, and Nathan B. Putnam</i>	
PART 3	123
Acquisitions, Interlibrary Loan, and Reserves <i>Edited by Robin Barnard Moskal</i>	
CHAPTER 9	129
Create Your Own Acquisitions and Interlibrary Loan Collaboration or Workflow Integration: A Range of Options <i>Mary C. Radnor</i>	
CHAPTER 10	139
Interlibrary Loan Acquisitions Through Collection Development <i>Alison M. Armstrong and Elizabeth S. Johnson</i>	

CHAPTER 11	157
We Didn't Fear the Reader: Embracing New Service Models With Staff and Patron Input <i>Daniel L. Huang and Sharon Wiles-Young</i>	
CHAPTER 12	177
Interlacing Workflows and Untangling Knots: How Acquisitions and Course Reserves Intersect <i>Hilary H. Thompson and Leigh Ann DePope</i>	
PART 4	197
Collaborations Between Acquisitions and E-Resource Management <i>Edited by Erica A. Owusu</i>	
CHAPTER 13	199
Electronic Resources: Deliberation to Delivery <i>LeAnne Rumler and Maurine McCourry</i>	
CHAPTER 14	209
Collaboration or Collusion: When Acquisitions and Systems Join Forces <i>Denise A. Garofalo and Vivian Milezarski</i>	
CHAPTER 15	219
Collaborating Across Divisions: A Case Study in Electronic Resource Management <i>Darren J. Furey, Pamela S. Morgan, and Sue Fahey</i>	
CHAPTER 16	237
Collaborating on Electronic Resources Acquisitions Through Our Unified Library Management System Implementation <i>Moon Kim, Jennifer Rogers, Tyler Rogers, and Wendolyn Vermeer</i>	
PART 5	253
Collaborations Between Acquisitions and the Digital Repository <i>Edited by Michelle Flinchbaugh</i>	

CHAPTER 17	255
Managing Electronic Theses and Dissertations in Acquisitions <i>Michelle Flinchbaugh</i>	
CHAPTER 18	269
Health Sciences and Human Services Library Collection Management Support for the UMB Digital Archive <i>C. Steven Douglas</i>	
CHAPTER 19	275
Developing Consortial and Campus Institutional Repositories <i>Michelle Flinchbaugh</i>	
CHAPTER 20	291
Using Institutional Repositories to Make Purchasing Decisions <i>Richard Wisneski and Marsha Miles</i>	
PART 6	307
Consortial Acquisitions <i>Edited by Lynda L. Aldana and Chuck Thomas</i>	
CHAPTER 21	309
Creatively Collecting: Leveraging the Power of the Collective to Benefit Our Local Collection <i>Tracie Ballock, Kirsten Ostergaard, and Amy Lee Heinlen</i>	
CHAPTER 22	325
Laying the Groundwork for Long-Term Library Collaboration: A 10-Year Perspective From Florida's State University System <i>Claire Dygert and Rebecca Donlan</i>	
CHAPTER 23	343
E-Resource Management Strategies for an Informal Consortium <i>Rhonda Glazier and Sommer Browning</i>	

CHAPTER 24	363
Data-Driven Journal Backfile Acquisition in the Digital Age	
<i>Youngim Jung, Hwanmin Kim, and Honam Choi</i>	
Bibliography	387
List of Contributors	417
Index	429

Introduction

Chuck Thomas

A book about contemporary and emerging practices in library acquisitions and collection services could have gone in many different directions. These areas of library operations are differently structured across thousands of organizations, and no single work could possibly convey the full breadth of innovations and collaborations occurring in libraries. Working within these obvious limitations, the editorial team recruited a group of authors and co-authors whose contributions reflect this diversity. The resulting collection of chapters is grouped thematically according to library activities and provides materials of interest to a broad range of readers.

Most chapters explain the local circumstances or problems that led to new collaborations and transformations of acquisitions and collection services. Whether readers are interested in the entire book or in discrete sections dealing with specific activities, it might be beneficial to consider briefly the larger-scale factors driving new innovations and collaborations across most libraries in North America and abroad. A partial list of these influences, in no particular order, includes

- declining library budgets and staffing;
- new library tools and workflows for acquiring, describing, and discovering information;
- libraries aggressively removing physical collections and repurposing space;

- ongoing transitions to electronic information across all domains;
- shifts in library focus away from local collections toward access and services;
- lack of new funding for new services, combined with reluctance to discard older services;
- evolving customer expectations in a networked world of e-commerce and self-service;
- demographic changes in the customer base for libraries;
- growth of distance learning and connected learning;
- emergence of new information services vacuums not being filled adequately by other organizations and entities;
- disruptive technologies such as machine learning and artificial intelligence;
- competition from publishers, vendors, and others who are now providing integrated information, services, and tools; and
- increasingly affordable and available technologies and tools for traditional library customers to do it themselves.

At first glance, some of these factors may seem redundant or even contradictory, but if asked, most library administrators and staff could provide multiple examples for most items in the list, and the ways they exert internal and external pressure for changes. Because changes and adaptations are so necessary for libraries today, innovation and new collaborations are often the only option available to organizations with limited resources. The old adage about necessity being the mother of invention could not be more true in these circumstances. Collaborations with new partners help organizations distribute both the potential risks and rewards of trying new approaches.

For this reason, from the beginning, collaboration has been the unifying thread for this entire work. Library acquisitions and collection services departments often function at the intersection of multiple library operations (e.g., collection management, e-resources licensing, cataloging, public services, interlibrary borrowing and lending) and are in many ways ideal for collaboration and experimentation. Of course, collaboration can take many forms and frequently entails unique mixtures of partners and interdependencies. As work on this

book progressed, the editorial team realized that a loose definition of “collaboration” strengthened the work overall and reinforced the idea that collaborations are always contextual and variable—one size does not fit all. Collaborations in libraries can include many different ways of working with others, both inside and outside library organizations. The same is true of library consortia, which also are featured in this book and are inherently collaborative but in many different ways.

This book is not intended to be a comprehensive guide to current library acquisitions and collection services activities. Instead, it is meant to give library directors, technical services managers, and managers handling acquisitions and collections some new ideas and examples of ways collaboration and innovation are transforming these areas of library activity.

An editorial project of this magnitude has been challenging, but it has also proved to be a highly rewarding experience. The depth and breadth of the final collection of contributed chapters is remarkable. Altogether, 57 people contributed to the effort. Beyond writing and editing, they provided thoughtful insights about how to best form this book, making a substantive positive impact on its final form. Thanks to them all. Co-editor Michelle Flinchbaugh managed this project. Thanks to her library, the Albin O. Kuhn Library and Gallery, and her university, the University of Maryland, Baltimore County (UMBC), for granting her research leave for this project. Thanks also to her coworkers, Lynda Aldana, Jennifer Fitch, and Tricia Flester, who covered her work during the project. Thanks to co-editors Vicki Sipe and Rob Tench, whose work went above and beyond. Also, thanks to author and experienced copy editor Lisa Hopkins, who has copy edited and proofread portions of the book and checked every reference for accuracy. Finally, thanks to Katina Strauch for offering the opportunity to create this book and encouraging us to follow our interests, and to Purdue University Press for publishing it.

PART 1

Collaborations Between Acquisitions and Collection Management

EDITED BY ROB TENCH

Collaboration between acquisitions and collection management has a long and symbiotic tradition. If not quite bonded together as closely as love and marriage and horse and carriage, the relationship has been closely intertwined. Yet for decades, especially when print was dominant, the line between the duties of acquisitions and collection management was clear. Collection development librarians and subject bibliographers analyzed their collections, selected materials, and submitted requests. In turn, acquisitions staff placed orders, received materials, and paid invoices. In smaller libraries, one person occasionally wore both hats. But more often than not, the volume of work necessitated some separation into different departments. Yet the workload seemed manageable and fairly straightforward.

However, with the explosion of new formats, assessment tools, and purchase options, those clear lines of demarcation started to blur. The world of collection development and acquisitions quickly evolved into a maze of licensing agreements, e-resources, data sets, purchase accountability, and usage metrics. What had seemed to be a simple and somewhat direct process was now much more complicated and complex. New buzz terms and phrases entered into the vernacular of acquisitions and collection management: the big deal, “just in time” acquisitions, return on investment, patron-driven acquisitions, evidence-based acquisitions, and many others. As a result of these

new demands, acquisitions and collection management librarians have found themselves sharing responsibilities, merging tasks, and overlapping duties.

It is within the context of these evolving elements of change and complexity that the authors in part 1 share their experiences and insights on collaboration between acquisitions and collection management. For example, Jennifer Culley addresses the issue of shared responsibilities in her chapter “Case Study at The University of Southern Mississippi: Merging the Acquisitions and Collection Management Positions.” Culley details how her institution merged acquisitions and collection management duties to create a new job, collection management and acquisitions librarian, several years after a library restructure eliminated the position of associate dean for collections and scholarly communication. It helped that library administration realized how critical acquisitions and collection management functions were to the library’s mission. For library administration, the upside of merging the positions, such as improving communications in the library and across campus, creating a more efficient library operation, and clearly defining acquisitions and collection management roles, far outweighed the challenge of one person having a heavy but manageable workload.

Improving workflows is also a central theme of Del Williams and Christina Mayberry’s chapter, “Acquisitions and Collection Management Collaborations: Weathering the Storm With Stagnant Budgets and Unpredictable Vendor Landscapes.” The authors outline a number of ways their acquisitions and collection development departments collaborated to improve work processes, all the while dealing with reduced purchasing power, higher costs for resources, and limited purchasing options because of fewer vendors in the marketplace. They focus particularly on the challenge of implementing a new streaming video service and the ways their departments successfully collaborated to make it work.

The ever-looming threat and reality of budget cuts and reduced allocations has had a profound influence on acquisitions and collection management collaboration. Quite often, it has led directly to collaboration almost out of necessity. Just as frequently, the results of those collaborations in addressing budget issues have been effective and long-lasting. In “Collaborative Forecasting When the Crystal

Ball Shatters: Using Pilot Programs to Frame Strategic Direction,” Lynn Wiley and George Gottschalk of the University of Illinois detail their library’s push to collaboratively institute a number of pilot initiatives, including new approval plans, e-book and print purchasing programs, and demand-driven models to meet user needs and overcome draconian budget cuts. The takeaways from their efforts have put their library in an excellent place to meet its goals.

Collaboration between acquisitions and collection management often extends into other departments and constituencies across campus. Scott Piepenburg of Brodart Library Services writes about such a multi-departmental collaboration in “Collaborative Collection Development: Leveraging the Skills of Cataloging Staff to Perform Collection Development.” In this chapter he describes how cataloging worked collaboratively with acquisitions and collection development in defining criteria for item selection and processing of a large donation of LPs. Acquisitions, cataloging, collection management, and library liaisons worked together to process the donation. Benefits from the collaboration included authority holdings being updated, stronger bonds being established between acquisitions and cataloging, and teaching faculty developing a new awareness about library resources and services.

By and large, several themes emerge from a reading of these enlightening and thought-provoking chapters. First, the spirit of collaboration runs deep between acquisitions and collection management despite the changing landscape of librarianship. Second, acquisitions and collection development librarians still find ways to effectively serve their patrons no matter the challenge—lack of funds, reduced staff, or oversized workloads. Third, the evolutionary nature of acquisitions and collection development does not deter or impede the ongoing tradition of collaboration. In fact, as these essays so capably demonstrate, their tradition of cooperation and collaboration is growing stronger and is more essential than ever in filling the scholarly demands of faculty, students, and researchers.

CHAPTER 1

Collaborative Forecasting When the Crystal Ball Shatters: Using Pilot Programs to Frame Strategic Directions

Lynn Wiley and George Gottschalk

In the old days, the monographic purchase process was a quieter affair. Selectors took their allocated funds and cast them across the universe of printed materials. Gazing into their crystal ball, selectors made their best predictions about which titles might generate circulation and bought as many of those titles as funds would allow. Granted, this paints a simplistic picture rooted in the nostalgia of “just in case” collection models. Forecasting needs and use has never been an exact science or an easy art. Still, it is not a hard argument to sell to suggest that the table has upended and even this imperfect crystal ball has been shattered in the much-complicated landscape of today.

Building an outstanding library collection requires many experts to work together. There is a lot of labor and collaboration involved in covering the research output available globally, combined with the need to prioritize purchases to meet campus demands. Research libraries are also committed to maintaining areas of particular breadth and depth for scholars worldwide. Large university libraries have been hard-pressed to keep up with the cost of resources, especially with monograph purchasing declining worldwide, a trend once again confirmed by the latest ARL (Association of Research Libraries) statistics on library expenditures.¹ Many other factors besides money impact collection work, including staffing issues, technology options, changes in publishing, and purchase models. Scholarly communication initiatives along with regional, state, and local partnerships also play a part. The combined factors often mean unpredictable and unintended

consequences. This chapter focuses on acquisition collaborations when fortunes change and crystal balls fail the shatterproof test.

The specific emphasis here is on how collaborative pilot projects provide opportunities to identify and acquire monographic materials as stewarded by acquisitions. Experimental programs help practitioners learn more about user preferences and publisher and vendor options for buying and allow them to gain support to evolve entrenched selection and order models and funding. The chapter presents a brief history of monograph purchasing at a major research library and describes how new purchase models were introduced and then formalized by working with acquisitions, vendors, subject specialists, consortia member libraries, and other stakeholders across all library units. It also covers recent collaborations to buy e-books as well as partnerships with vendors and publishers to assess available e-format availability and user discovery. The proposals have helped to build the framework for redrawing purchase strategies to obtain monograph academic content. All the pilots resulted in data and collaborative input to assist in enhancing partnerships with vendors, publishers, and bibliographers to better guarantee access to new monograph output as preferred by users—all especially needed when a forecasting crystal ball gets cloudy!

UNIVERSITY OF ILLINOIS AT URBANA–CHAMPAIGN LIBRARY

The University of Illinois at Urbana–Champaign Library (U of I Library) serves over 47,000 students and 10,000 faculty and staff. It houses one of North America’s largest collections, with over 24 million tangible items. Forty-five subject bibliographers (aka selectors) are responsible for covering the research and teaching needs of specific disciplines. Acquisitions provides the tools via vendors to help them obtain the best academic research content for their disciplines in the most cost-effective way. If there is anything definitive we can say about the role of acquisitions departments, it is that acquisitions staff fulfill a primary role as facilitators. As such, each purchase option that presents itself to libraries is facilitated through acquisitions staff, who must manage all the day-to-day details of purchase options and field questions about how such purchase options impact vested parties. As purchase options proliferate along with access-based models,

acquisitions staff are called upon to take on new responsibilities and support new workflows.

Bibliographers at the U of I Library have allocations for their subject areas that reflect recurring needs. For example, subscriptions as well as one-time funds are typically used for a title-by-title book or a collection purchase. One centralized fund covers core monograph purchases, especially needed when subject funds may be hard-pressed to cover their recurring costs. Recurring and primarily online resources comprise two-thirds of the entire collections budget. The budget stalemate situation in the State of Illinois necessitated cuts to the library operating costs and staffing. No inflation has been available for several years for the recurring resources. Furthermore, central and subject book funds are not routinely increased. However, innovative projects—such as a grant to maximize those funds while expanding access—do have the potential to gain short-term new funding until such time that a reallocation is evidenced. To help readers understand monographic purchase evolution at the U of I, a description of an initial event that kick-started many changes that required and benefited from a collaborative effort in reaction to a crisis is provided below.

OUT WITH THE OLD: IN WITH THE NEW

Until 2005, domestic book buying at the U of I Library was accomplished with a traditional approval plan. Here, the library received new print monographs from a core group of trade and university press publishers from one vendor on a weekly basis. A profile defined the academic content, which was matched to output as it was released by publishers. The disciplines covered were comprehensive. Certain types of monographs were not included, such as odd sizes or bindings, and price per book was capped. Many thousands of titles were acquired annually with a centrally managed pool covering the costs. Over time, publishing output grew with no changes to the profile or increases to the central pool. Despite the intent to do so, few titles received on approval were returned. Bibliographers reviewed titles on approval shelves weekly and kept 99%. Every selection made was recorded with its price, suballocation fund (of the central pool), and permanent location. By 2005, the plan was costing twice the amount allocated, with funds to cover the annual expends taken from year-end

unspent monies. Unfortunately, those funds could no longer be relied upon in subsequent years.

The new unit head who began in 2005 was tasked to fix the problem. The selection records provided good data to devise a new allocation formula to match subjects to actual funds available. This required drastic reductions and a new selection and order process. The vendor was instructed to reduce deliveries immediately. A task force convened under the Collection Development Committee (CDC), a representative body covering all subjects as defined by the library divisions. The divisions covered technical and central public services, life sciences, physical sciences and engineering, humanities, social sciences, and special collections. The committee's charge was to develop a long-range plan to help ensure good communication library-wide about monograph purchases. Bibliographers worked together to make sure interdisciplinary fields were covered and areas studies were folded into the plan to choose books in English for their respective areas. Talking with all the bibliographers allowed for conversations about the whole collection and not just one discipline. This resulted in more awareness of the needs of the entire collection and a mandate to be more selective. To paraphrase one librarian: "I did love the ability to see all those books and review them. And as they were here already, I was like a kid in a candy store and wanted all of it. But a selective process is best for users." This process brought all bibliographers together to find a solution and had the added benefit of generating a shared vision of how to steward the collection.

THE "NEW" GETS BETTER

The aftermath of the cutbacks was difficult as new acquisitions processes had to be set up due to the profile changes and the ensuing high level of returns needed to stay within each subject allocation. It was difficult to see what critical titles were missed and proved to be very staff-intensive to return books that were rejected along with removing their records. Therefore, within one year all weekly autoships (books sent automatically when they match an approval profile) were dropped in favor of title ordering based on online records supplied by the vendor. Acquisitions worked with the task force to set up a temporary Excel-based online solution to facilitate selection, ordering, fund

tracking, and bibliographic record management. It was hoped that the current vendor would release a new system soon, but with time short for an integrated solution to meet all the stakeholders' needs, the task force elected to put out a competitive bid for vendors. Working with that temporary procedure gave all bibliographers a good grounding in what was needed for a more comprehensive book-buying solution. A cross-functional team was appointed that included some of the original task force bibliographers as well as acquisitions, purchasing, and contract staff to develop and post a competitive bid for a better system.

It is worth noting that monograph access at the U of I (when print was dominant) was greatly facilitated by CARLI (Consortium of Academic and Research Libraries in Illinois). A majority of public and private libraries in Illinois are members of this consortium (86 currently). Many are also part of the I-Share system, which allows central access to bibliographic records, holdings, item status, and patron records as well as unmediated book borrowing. (In 2017 I-Share held 3 million bibliographic records with 36.7 million items.) That service was backed by a daily pickup and delivery service subsidized by the State (see <https://www.carli.illinois.edu/>). Public libraries may request loans on behalf of their users. An analysis of five years of buying history within that I-Share membership had just been completed to look at overlaps and unique titles as well as use. The data revealed good trends in sharing resources but also evidence that a large number of titles were being duplicated multiple times across the membership. The question was posed: how do we reduce that overlap and broaden purchasing to share across larger sets of titles? CARLI members recommended a new five-copy limit guideline for the shared collection to discourage redundancy and instead encourage diversified buying. The study results may be found in a 2011 article by Wiley, Chrzastowski, and Baker.²

This recommendation is pertinent not only as a logical outcome of the collaborative study but also because the request for proposal (RFP) afforded an opportunity to ask vendors to facilitate this. They were asked to describe a service that allows for a quick review of partner holdings at the purchase point to enhance adherence to the guideline. This feature was added to the RFP requirements. CARLI member libraries were invited to participate in the RFP open sessions to select a new vendor. The RFP process resulted in a contract awarded to YBP Library Services in 2008, and the terms were also offered to CARLI

member libraries to switch to YBP services if desired. System implementation transitioning to YBP monograph ordering went extremely well thanks to the shared goals of all the stakeholders, with a primary one being to get it operating quickly!

The bibliographers worked together to profile their subject parameters. YBP provided hands-on, in-depth, on-site help to accomplish this in one week with agreement on a publisher list, non-subject parameters, and a comprehensive plan to cover all subjects. Training followed. It was with great relief that the temporary solution was replaced with a much-improved discovery and order platform from YBP that included weekly slips easily retrieved for selection. Few bibliographers opted for autoships rather than a slip to order that book. Instead, they preferred to do title ordering and prioritize purchasing, leaving wish list items for later as funds allowed. The profile matched many more titles than could be afforded, but the records and platform provided good information to allow for judicious selections. The entire workflow was seamless, with immediate relief in saved labor. The platform provided easy access to orders, funds used, and tracking of each order status. Additionally, the platform provided immediate information about consortia holdings to reduce overlaps.

The collaboration that happened due to both cutbacks and the holdings study resulted in more focused book selections and a better use of resources locally and across the state. For a little time, the U of I had one integrated system for purchasing domestic monographs. However, a proliferation of new purchase models, along with an acceleration in e-book offerings and new vendors, provided opportunities and complications, made even more interesting as the Great Recession was in full swing. Demand-driven programs was one new model trending.

PURCHASE ON DEMAND ACQUISITIONS (PDA) PILOTS

CARLI I-Share Pilot to Buy Unique Titles to Share Statewide

CARLI already had a long-standing program for patron-initiated borrowing that worked extremely well for many years with print books and when member libraries were able to buy books to share. The millions of holdings in I-Share fulfilled hundreds of thousands of

patron-initiated requests over many years. Figure 1.1 illustrates the level of sharing at this time (2008). These user-initiated services were routine for the CARLI membership and were made possible because of a long history of collaboration in sharing resources across the state. The pilots summarized below are fully described in a 2011 article by Clarage and Wiley.³ Summaries describe the collaboration, results, lessons learned, and impact on acquisitions.

One other outcome of the CARLI holdings analysis was that it showed what members were not buying. YBP provided data on publishing output to match the years of the study to reveal the gap in academic content not acquired. Fresh from a recommendation to support more diversified purchasing, discussion ensued on purchasing options and whether users wanted that material. The implementation of YBP and its batch load process to add records to the Voyager catalog resulted in some innovative thinking about user access to titles not owned.

Was it possible to use I-Share to help purchase materials utilizing services at YBP and the Voyager requesting utilities? In

CARLI Top Five Lenders: Titles Lent 2008

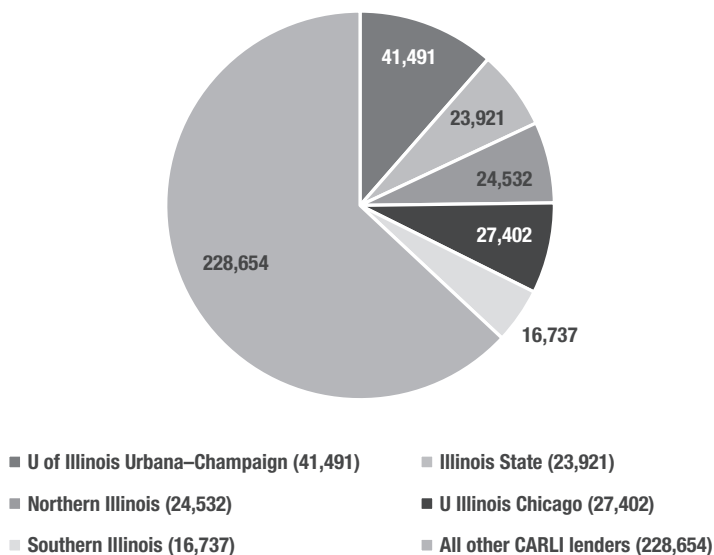


Figure 1.1 CARLI top five Lenders: Titles lent 2008.

early 2009, the U of I Library submitted a proposal to the CARLI Products and Services Vetting Committee to test a PDA service for book purchasing. The proposal, “Building on Our Shared I-Share Success: Extending User Requesting to Support New User Initiated Book Purchases,” was approved in 2009, and a CARLI task force was formed to develop and implement the pilot. CARLI and U of I provided matching funds for a total of \$10,000 to test a demand purchase program using YBP’s assistance to select unique titles and load them into I-Share for access by all member library users. With records selected, they were imported into I-Share with special purchase on demand text to allow users to request them for purchase to an approved CARLI hold location of their choice. Each request was vetted by staff before any title was purchased. The funds were used quickly, with 190 titles made available via delivery to users statewide. Staff searched every request and did not fill an order if a CARLI copy was available. These were simply forwarded on to a holding library to fulfill. Some titles were either not suitable in readership level for an academic library or too expensive to add, pointing to the need to tighten the title selections. Recipients of the requested titles and the U of I staff were surveyed about the pilot via different mechanisms, the former by anonymous paper surveys sent with their requested book and the latter by an online form that had an option for name input. Users who returned the survey (50 from the 190 whose requests were filled) unanimously supported the service. Staff provided feedback on how to improve the service, with excellent suggestions on how to edit the request to purchase text in each record to best explain the program to users requesting a title on demand. CARLI and U of I Acquisitions partnered well with YBP to make the program happen. It provided excellent proof of concept as well as very useful information on profiling and record loading to best meet the project goals.

The proof of concept PDA program done by CARLI was an early portent for a new trend soon to be adopted by many libraries. The Association of College and Research Libraries’ 2010 top 10 trends in academic libraries listed PDA as a new force in collection development, explaining, “Academic library collection growth is driven by patron demand and will include new resource types.”⁴ Three additional and different patron-driven programs followed at the U of I.

The U of I Library elected to capitalize on the success of the CARLI program as well as the lessons learned to offer a similar program for patron-initiated purchases in 2011, but only for local users. Since the approval cutbacks, funds to cover disciplines with large publishing outputs were hard-pressed to cover annual output. A PDA program is attractive as it can help close the gap experienced by users needing recently published titles. Supplementing high publishing output areas with user-driven purchases would provide more information on how to extend the allocations based on need. A committee of librarians representing the disciplines of arts and humanities, social sciences, and the sciences developed an integrated PDA and approval plan that would allow subject specialists first access to newly published titles every week with PDA records loaded less frequently. The new PDA profile mirrored the existing approval plan in almost all areas, except that books had to be available as rush stock (i.e., in a warehouse and on the shelf for expedited delivery). Both profiles identified newly published output from the YBP database. PDA records were loaded later and less often than the bibliographer's GOBI slips (notifications sent to selectors of new materials available in their profiled subject areas that are used to place an order or request that Acquisitions place an order). This time lag allowed selectors a head start to purchase material from their slip matches loaded weekly. The program was initially funded by seed money for one year, with most of the funding coming from the central pool suballocations. The seed money was utilized only when the central pool expends were exhausted. The PDA bibliographic record notes to guide users in making their requests were updated based on staff recommendations from the first program.

There was fear expressed by several bibliographers that this service would result in subpar purchases, could negatively impact the collection, and would waste scant resources. They were invited to tighten profiles to restrict material to academic content from approved subjects. The program has been very successful, receiving many endorsements by researchers and librarians alike. An unanticipated consequence was the stress relief PDA provided to at least one bibliographer, who found it hard to keep up with ordering during peak teaching times or when called away for professional committee work. If a user needed a book, that librarian knew there was a very fast option to obtain it, as most of the orders arrived within two

days. Another issue impacting title availability of new books from CARLI members was the limitation put on I-Share borrowing for new books. Individual libraries place new books on review shelves and only loan them to their immediate constituency. High-demand new books were never available as they were either checked out or on reserve.

The PDA program was seamless for users because they were used to requesting titles to be loaned by a CARLI library or receiving locally owned materials that were pulled and mailed to them or rushed through cataloging. This new purchase program seemed very logical to faculty and students alike. The timing was excellent to begin this, as the economic recession was now impacting libraries' materials budgets. Monograph budgets were nonexistent for some CARLI members, resulting in higher requests for book copies in short supply.

The pilot is now a regular acquisitions purchase model and is still practiced. Acquisitions had been collaborating with interlibrary loan staff already to allow them to initiate rush orders for brand new books not available as a loan from another library, including any CARLI member. Once the PDA program illustrated the labor saved and revealed books that were used, the Interlibrary Loan unit permanently transferred funds to support PDA rather than spend funds and staff time to borrow books frequently requested. This collaborative and evidence-based decision literally put the money where the need was. See figure 1.2 for PDA use data; the average use per title was 2.83, compared to 1.47 for those titles purchased by librarians (where titles were from the same profile for publishers and content). Figure 1.3 shows how stable and predictable the program has been with a consistently similar number of requests, average cost per book, and annual costs over five years and counting.

CARLI-Funded PDA for State

With the recovery from the recession still ongoing, many CARLI members could not purchase monographs and lacked the ability to purchase or lease e-books not shareable with the membership. The I-Share collection was hard-pressed to serve member needs for new loanable books. The CARLI Board funded another larger PDA project for fiscal year 2012 based on the success of the first pilot. The goal of the project was to purchase newly published core academic titles in

Average Use per Title: PDA Versus Selectors' Picks

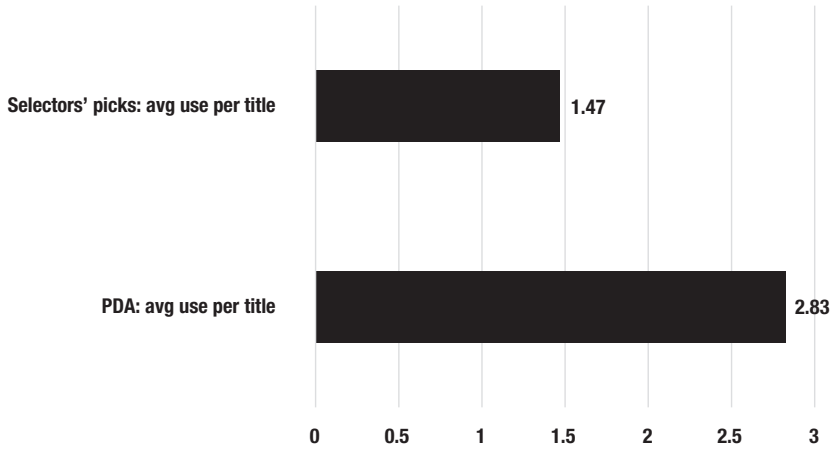


Figure 1.2 Average use per title: PDA versus selectors' picks.

Six Years' PDA Volume and Annual Costs

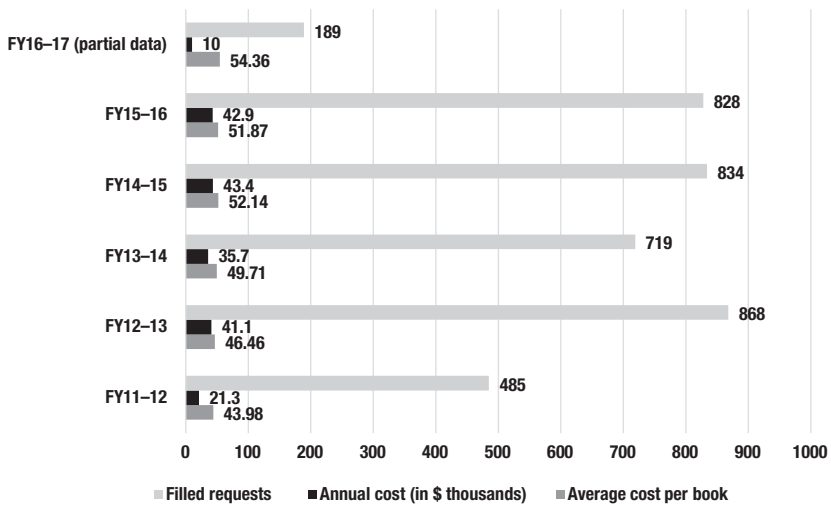


Figure 1.3 Six years' PDA volume and annual costs.

print to share. YBP assisted in the profile and record loading with changes made as informed by the last program. Full bibliographic records were added to the shared catalog weekly where users could find them easily. Records were loaded for books that matched similar criteria as the first project, though it only covered monographs in

the humanities or the social sciences published within the past two years. The U of I was asked to host the service to rush order, catalog, and process the items for delivery since the items were housed at the U of I Library. The program purchased 2,500 titles for patrons from 86 libraries statewide. CARLI also reviewed each request to confirm that a majority were not available as e-books and those that were online were not available for a consortial purchase. This confirmed that a print copy for a new book title was the best option for this CARLI-funded resource sharing.

Unfortunately this program, which showed much promise to alleviate the lack of access to new book content, was canceled in 2014. Yet another budget problem has been ongoing in Illinois: no state budget was passed for consecutive years, resulting in debilitating cuts to higher education. Funding was eliminated for the shared PDA program. However, PDA models are still one piece of the local monograph acquisitions puzzle. The advent of additional e-books was both an opportunity and challenge that made the puzzle more complicated, with extra pieces to play with.

E-BOOKS

Changes in book purchase models, especially in format and all the consequences thereof, could not be completely anticipated. E-book collection purchasing began some years earlier for older titles at the U of I and accelerated by 2009, when large science collections and book series became available. Table 1.1 shows the growth of e-book buying at the U of I made largely possible with buying whole publisher collections with no user limits and pdf downloads similar to journal articles. With frontline (i.e., prepurchase of new titles annually by publisher output), the major science imprints were blocked from the YBP print title selections in favor of the online-only copy (a well-established and accepted model with the journal subscriptions). Purchase by collection was much less labor-intensive, but as the U of I bought books from many hundreds of publishers, the library never bought all the output they offered. It was not necessary and not budgetarily feasible in any case.

The science division bibliographers were early adopters of e-books, with those collections also including content serving the humanities

TABLE 1.1 Overall E-Book Growth at U of I for FY 2008–2015

Fiscal Year	Number of E-Books Added per Year	Cumulative E-Book Total	Percentage Increase per Year (%)
2007	NA	292,002	NA
2008	27,531	345,186	9
2009	66,178	411,364	19
2010	73,404	484,768	18
2011	129,435	614,203	27
2012	57,735	671,938	9
2013	164,284	836,222	24
2014	78,711	914,933	9
2015	91,213	1,006,146	10

and social sciences, though to a much lesser degree. These disciplines also benefited from large collections of older books, but new core content in those areas was problematic to obtain across the board. These areas rely on many more publishers making entire collection buying less feasible. Title-by-title e-book offerings were not prevalent, though a few vendors were offering content covering titles from many publishers and copyright years.

As library users in non-science disciplines were not exposed to many new books, a demand-driven program was set up early on to test a platform that offered e-book content from many publishers.

The e-book demand-driven program in 2010 was funded by an internal innovation grant. Acquisitions worked with YBP and ebrary, an e-book vendor, to select e-books available for DDA and then load them into the catalog. Ebrary had established agreements with publishers to sell its online titles on one platform. Publishers favored this model as it provided for digital rights management (DRM) that restricted users from copying content and limited the potential for sharing across users. The U of I Library had no prior experience with third-party vendors and platforms that limited access and use of content. A total of 6,000 ebrary records were loaded into the local catalog. Titles had to meet the following criteria: they were not already owned, fell under a \$200 per title cap, were in English, and were identified as an academic book with copyright dates within five years. The purpose of the study was to determine user satisfaction with ebrary titles and how the DRMs set by publishers might impact use of these

titles. The e-book model allowed for one user, restricted printing, and prohibited downloading. Title-by-title purchase options for e-books were almost nonexistent at the time, so it was hoped the results of this pilot program would inform library selectors on how the addition of DRM third-party e-book records to the approval plans could work.

The PDA e-book pilot study, like the print PDA study with CARLI, was successful in that it provided data on title-by-title e-book orders. It helped the library measure demand for e-book content and established a baseline cost per e-book. One result was the bibliographers' approval to add e-book formats as offered by the aggregator vendors to the approval plan for selectors' title orders. Another result was that it provided good data on the content and copyright years of material publishers made available to third-party vendors. Titles were triggered for purchase by transactional use that offered information on the pages viewed or printed by a user. Triggered purchases also meant that costs were difficult to control and impossible to project over time, making a DDA program labor-intensive to manage. The ease of access and convenience were much appreciated by users; however, they were frustrated by the inability to download a book or even a chapter, an option they were used to for the e-book collections bought directly from publishers. The title offerings also made clear that publishers were selectively offering their output in e-formats to the vendors as newer titles and comprehensive output varied widely.

Access to e-book order options was complicated. The one-stop shopping platform for buying core titles (YBP GOBI) could not reflect the U of I holdings for titles the library was already getting direct from publishers as an e-collection or from PDA programs. In addition, it was starting to get difficult to know what was coming as an e-book due to prepurchase as a collection (where there may be titles exempted by imprint) versus what was not ever an option to buy by a library in an online format or what may be released by a publisher as an e-copy years after the print was published.

Cataloging routines also changed, with subsequent impacts on ordering. In buying at the collection level, the majority of e-book records are not added to the catalog using traditional order routines. Title-by-title ordering via vendor platforms still relies upon EOD/EDI (electronic) processes and requires a cataloger to add proxy server preprends and links to the catalog. Collection buying requires that large

volumes of records be added to the catalog through a batch process of records downloaded from vendor and publisher sites, edited in bulk via MarcEdit, and then imported into the catalog in volume. These records often are acquired after the titles were purchased and activated, which was problematic for any bibliographer ordering titles. Acquisitions had asked YBP to mark those titles in GOBI as owned but relied on ISBN matches. Those provided by vendor or publisher were inconsistent and led to mismatches. Moreover, it is hard to keep up with these file updates in order to provide real-time help to selectors who simply want to know not to order a title already on order. Training staff and catalogers within Acquisitions and Cataloging and on the public services side so they understood how these records were being generated was necessary to enable informed ordering and to assist in troubleshooting and patron service inquiries. With so many bibliographers and publishers exploring new ways to sell old and new content, our crystal ball was useless. It was time for more assessments to plot a new course.

EVIDENCE-BASED PURCHASING

By 2015 the U of I Library had bought over one million e-books. The approval plan central pool was funding science and some social science frontline e-book collections while continuing to support title selections via GOBI for both print and e-books across all disciplines. By this time, Acquisitions had enabled e-book title ordering with all the best options YBP could offer except those from the publishers the library was buying from directly. Several DRM-based third-party offerings were enabled for ordering, as well as a few publishers where the library did not buy whole collections as not all were pertinent.

Acquisitions experimented with more DDA models, including short-term loans (STLS) for large archival collections in the humanities. Here users were also surveyed about e-book preferences. Results were published by Chrsastowski and Wiley in 2015.⁵ They found that humanities researchers liked both formats and wanted both but disliked having to use the titles on a DRM platform due to the constraints they experienced while attempting to print, download, or navigate

content. The study also showed that STLs are not sustainable for publishers as most content gets little use and generates no use fees for publishers. The U of I Library did not elect to implement a firm DDA program. A predictable outcome was higher fees or less content to browse, as indeed happened in subsequent years.

The publishers generating the most orders on GOBI now include major trade and a majority of the university press publishers but not the major scientific, technical, and medical (STM) publishers. Print still dominates because a majority of university press new titles were largely not available as e-books due to the lack of simultaneous e-format and print publication. New fiction and literature titles are not available to libraries for purchase in an online format as that erodes publishers' sales revenue to individuals. Titles were also pulled from online offerings to libraries if adopted for courses to help guarantee student sales and revenue for the publisher. Large collections of the press titles were available as an archival purchase and some frontline purchase but were prohibitively expensive and still not comprehensive as titles were held back. JSTOR and Project Muse e-book ordering was enabled in YBP as soon as they offered the service. These vendors provide sales options to their publisher clientele who make the decisions on how titles may be offered. The titles available to be sold on YBP were slow to grow, but once enabled on YBP, bibliographers selected them for purchase immediately.

The non-DRM and user-friendly platforms were enticing. This change and the fact that the U of I Library was buying a large number of titles in print based on lack of format choice and user preferences prompted an assessment of print book purchase history. Both vendors offered the library lists of titles in their archives that were matched locally to U of I purchases. It was determined that the library collection held 56% of all Project Muse offered and 58% of JSTOR. System reports for historical charges showed that both collections had substantial use, with 67% to 73% of the print titles purchased from those collections having one or more historical charges. When Project Muse invited discussion about testing an evidence-based acquisition (EBA) model for a majority of its content, it was a logical decision to participate. At the same time, JSTOR was testing a DDA model that all three U of I campuses tried. Given that the title offerings for both had seen high use, these initiatives were of great interest. Both pilots began

in fiscal year 2016. Table 1.2 provides an overview of the fiscal year 2016 results.

The collaboration with three campuses and JSTOR provided discounts in titles purchased and a good sense of overlaps in title use that would provide direction for future collaborations. It also provided better insights into the JSTOR platform and how well users explored that content. The DDA model presented issues, however, in managing costs and labor. Use can be unpredictable, and a trigger model will result in anxiety when funds are tight, as was the case with the sister campus program. With all JSTOR titles activated on its platform, the potential that users may trigger titles already owned in an e-format was problematic. The DDA model could have worked if content had been limited to better control costs. However, that was counterproductive to the shared campuses' goals to see how the three campuses used such broad content. JSTOR delivered detailed reports that were very useful in providing subjects, logs of use, and prices to help manage the program.

The Project Muse program was very easy to set up as it ran on its own. The library paid a one-time fee to join the program, agreeing to select titles after 12 months of use to match the amount paid. Project Muse then activated use for all the EBA titles for the campus. The full year of access provided a better opportunity to gauge use, as it covered two academic semesters. Librarians chose the titles to purchase, served on a task force to represent those disciplines used in

TABLE 1.2 DRM Free Demand-Driven E-Books—Programs FY 2016

	JSTOR—DDA 4 Months	PMUSE—EBA 9 Months
<i>Titles activated</i>	36,000	30,000
<i>Unique BK titles both by pdf downloads only</i>	3,456	2,589
<i>Chapter downloads</i>	9,580	28,035
<i>Average price per book</i>	\$103.55	\$110.00
<i>Purchase title totals</i>	263 but 3 copies each	457
<i>Highest download for any title</i>	337	1,197
<i>% of total not used (downloaded)</i>	94%	91%
<i>% titles from last 10 copyright years for titles used 5+</i>	677 titles, or 60%	287 titles, or 72% recent

the EBA, and looked at use and fit to make their informed selection decisions. As all titles were activated, the high-use titles had to be checked for ownership to remove those already owned as an e-book. Some were purchased via the JSTOR trigger and others from DRM vendors via the GOBI selections or previous DDA programs. The EBA model provides for the ability to remove the duplicates as purchase candidates. Project Muse EBA use reports as offered initially had to be merged with information about prices and subjects to be useful for the final selection stage. The staff from both vendors were very helpful, and everyone gained insights into program improvement as results and issues were discussed via email, over the phone, and at meetings. Vendors work to resolve issues, not just for the libraries who buy titles but also for the publishers whose content they sell. Both vendors helped to explain the publishers' perspective on offering content, not knowing if use would generate revenue or when that revenue would be forthcoming if generated. These vendors would like to have more of their publisher clients offer their titles to DDA or EBA programs, but it can be a hard sell. Figure 1.4 illustrates the varying levels of titles publishers offered to an EBA program as seen in the Project Muse fiscal year 2016 program. Many offered all of their titles via Project Muse for their EBA pilot (38%), with 46% of those allowing for the majority of their output to be included (50%–99%) and 25% of the publishers holding back all or a majority of their titles.

Use data showed that selections and triggered content covered more recent copyright years, and both showed that less than 10% of whole title lists had use of any type but that the time periods of use need to be longer before user interest can be gauged accurately. The EBA definitely came out a winner in terms of predictable costs, management and control, and the collaborative input allowed for selection decisions. The U of I Library has seen continued and sustained use of the Project Muse EBA titles and is now in the third year of the program and sharing data with that vendor as the pilot evolves. Publishers sell their titles via many distributors and cannot always know the recipient. Libraries can offer information to vendors about titles that overlap as bought elsewhere when publishers see high use but no purchase from an EBA program. Vendors can explain this to their publisher clients. JSTOR now is offering an EBA pilot that the U of I Urbana–Champaign is experimenting with, as well as the Chicago campus, and

Publisher (by number and % of total) and % of Titles Made Available in EBA Purchase Model

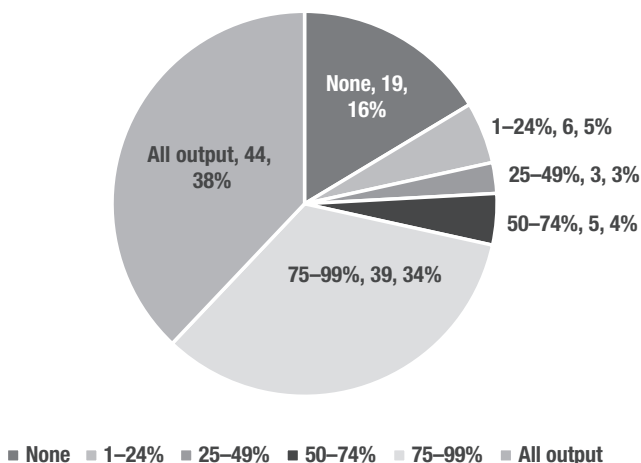


Figure 1.4 Publisher (by number and % of total) and % of titles made available in EBA purchase model.

both campuses were offered title discounts with joint participation. JSTOR was very up front about the publisher title offerings where a high number of their publisher clients are not participating yet at any level and, for those who do, there is a need to support publishers' requests limiting content to the titles with copyright dates of at least three years and older. This works well, as Acquisitions left JSTOR enabled on the YBP GOBI selections since those match to only the recent content.

Project Muse titles were enabled again on GOBI as more of that content is sold title-by-title rather than as EBA offers, and if there was overlap, a title purchase would not be selected on the EBA list. Selectors also can purchase a Project Muse title offered only on a DRM platform but are asked to select the multiple user option even if it is more expensive. They should also check to see if a title can be downloaded via a fairly recent preview option offered through GOBI. Both non-DRM vendors load new content at least once a year to the EBA programs under agreements they negotiate with their publishers.

To encourage more participation, JSTOR is experimenting with a model that guarantees all publisher participants some revenue for

allowing access to their titles even when not used. It is built into the library prepaid fee to join the pilot. This is an innovative idea that hopefully will see more titles in the pool. It is incumbent on libraries to understand that prices and participation levels set by publishers are going to change as models evolve and to take care not to rely on any one model as most certainly these models will change again in the near future.

PUTTING THE DATA-DRIVEN PUZZLE PIECES TOGETHER

The approval plan changes, user surveys, e-book purchase history, and demand-driven programs have informed decisions on e-book and print purchases and provided lessons learned about e-book DRM, user preferences, and e-book availability by collection, by subject slices, by title offering via YBP, or through demand-driven programs. Data are available on print as well. In recent discussions about monograph purchases held in routine acquisitions forums and open hour drop-in sessions, bibliographers volunteered that they wanted to know how to plan for e-books as well as how to manage their selection time. The profiles on GOBI were garnering a lot of content, and they were hoping to manage that better. Some wanted more autoships for print, others less content to review, some more evidence of use to inform selections, and others the potential to move to e-book preferred options. Six years of print purchases were analyzed in spring 2017. Orders funded by the central fund for new monographic output were analyzed by publisher and subject. Bibliographic data, purchase information, and cumulative circulation data were also pulled from the integrated library system (ILS).

The results of the analysis have now provided hard data to inform profile changes as hoped. The data allowed publishers to be categorized as Tier 1, 2, or 3. Tier 1 included those publishers with high output and continued high purchase rate with strong use. These were candidates for autoships or EBA purchases if they also participated in EBA. Tier 2 publishers had large title offerings (i.e., high output and a low to high purchase rate) but had less use and especially high rates of no use across the titles. These were candidates for

limited autoships if matched with subject parameters, and all were candidates for regular slip generation title-by-title orders and for PDA record importing to fulfill a user need if a bibliographer could not or had not yet made the selection. Tier 3 publishers comprised a long comet tail of publishers with low purchase rates and mostly low use, though some were high use and reflected titles needed for reserves or research projects and therefore require title-level ordering. Figure 1.5 shows the relative value for each tier percentage of the whole for purchases, circulations, zero circulations, and the percentage of publisher per tier to best illustrate how they rated their respective tier assignment. These data were made available to a task force charged with deciding how to create custom profiles with YBP to provide for autoships and to recommend publishers matched to subject areas for title selection or patron-driven record loads for users to request if needed.

The subject analysis illustrates by publisher the disciplines covered that will help to qualify what content per publisher may be an autoship versus a title order or PDA candidate. Decisions will be made soon

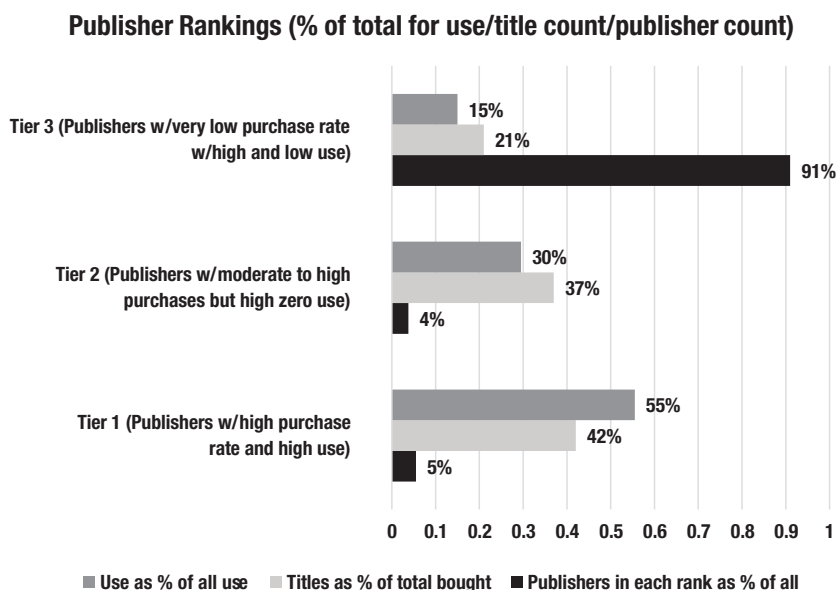


Figure 1.5 Publisher rankings (% of total for use/title count/publisher count).

on those profile changes with these new plans expected to save the bibliographers' time in making selections as well as order and vendor work done by acquisitions staff. Autoships from top-tier publishers mean those titles will require minimal tracking as they will be orders matched upon title availability. Delivery should be distributed over the calendar year for timely processing. Knowing the EBA publisher participation rate will also help bibliographers decide whether to get print and pick the same e-book title if use warrants or skip print in favor of an EBA selection for a Tier 2 publisher if user downloads indicate that preference. Those are just a few options, and there will be decisions made collaboratively with input from bibliographers, acquisitions staff, and users.

Collaborations can happen in reaction to a crisis. They may be inherent in the organizational culture or opportunistic when new funding is available or a new innovative process is implemented. With data available to reveal trends and patterns and with new initiatives illustrating trends and changes, collaboration is strategic. Acquisitions will continue to engage in a sustained, iterative communications and outreach strategy backed by good data. As models and demands increasingly compete for either the same amount or even dwindling funds, bibliographers must have input and buy-in into library-wide initiatives that govern fund management. The overarching goal and message have been that Acquisitions seeks to assist bibliographers in maximizing funds, saving their time from the more mundane selection considerations, and expanding their ability to pursue strategic acquisitions for more unique and specialized collection needs.

A key takeaway from this process of reviewing fund strategies is that it is incumbent upon Acquisitions to engage in direct liaison work with subject bibliographers. It is not sufficient to await passive receipt and fulfillment of orders. As acquisitions staff are mandated with continued awareness and investigation of emergent purchase models, the only way to capitalize on new developments is through continual exchange of information between bibliographers and our established vendor and publisher partners. As the marketplace continues to diversify and evolve and as publishing output continues to challenge the availability of existing funds, acquisitions staff can contribute to the appropriate stewardship of fiscal resources and fulfillment of patron needs through increased focus on discourse and communication.

NOTES

1. “ARL Expenditure Trends in ARL Libraries, 1986–2015.” *ARL Statistics 2014–15*. Washington, DC: Association of Research Libraries, <https://www.arl.org/storage/documents/expenditure-trends.pdf>.
2. Lynn Wiley, Tina E. Chrzastowski, and Stephanie Baker, “A Domestic Monograph Collection Assessment in Illinois Academic Libraries: What Are We Buying and How Is It Used?” *Interlending & Document Supply* 39, no. 2 (2011): 167–75.
3. Lynn Wiley and Elizabeth Clarage, “Building on Success: Evolving Local and Consortium Purchase-on-Demand Programs,” *Interlending & Document Supply* 40, no. 2 (2012): 105–10.
4. ACRL Research Planning and Review Committee, “2010 Top Ten Trends in Academic Libraries: A Review of the Current Literature,” *College and Research Libraries News* 71, no. 6 (2010): 286–92, <https://crln.acrl.org/index.php/crlnews/article/view/8385>.
5. Tina Chrzastowski and Lynn Wiley, “E-Book Use and Value in the Humanities: Scholars’ Practices and Expectations,” *Library Resources and Technical Services* 59, no. 4 (2015): 172–86, <https://doi.org/10.5860/lrts.59n4.172>.

CHAPTER 2

Case Study at The University of Southern Mississippi: Merging the Acquisitions and Collection Management Positions

Jennifer R. Culley

BACKGROUND

The University of Southern Mississippi is a doctoral-granting university with roughly 15,000 students. It has dual campuses, one in Hattiesburg, Mississippi, and one in Long Beach, Mississippi, along with several other teaching sites. University Libraries comprise four libraries, two of which are located on the coast. Gunter Library is located at the Gulf Coast Research Laboratory in Ocean Springs, and the Gulf Coast Library is on the Long Beach campus of The University of Southern Mississippi. The Hattiesburg campus is home to the McCain Library, which houses University Archives, Special Collections, Mississippiana, and the de Grummond Children's Literature Collection. The Joseph A. Cook Library (the main library) houses materials for all academic department subject areas taught on the Hattiesburg campus. It also is the location of the Technical Services Department for University Libraries, which is made up of three units: Acquisitions, Cataloguing, and Electronic Resources and Serials. Each is managed by a librarian. Technical Services is responsible for ordering, receiving, and cataloguing of materials for all of the libraries on the Hattiesburg and Gulf Coast campuses.

Prior to 2011 there was a collection development officer who performed collection development duties and was located in the Technical Services Department. After the collection development officer retired, this position was redefined and reclassified as the associate dean for

collections and scholarly communication. The position was moved out of Technical Services, but all collection development duties stayed with the associate dean.

In 2013 a series of budget cuts and position eliminations led to a restructuring process at The University of Southern Mississippi's Cook Library. The associate dean for collections and scholarly communication position was ultimately eliminated in the restructure. After the position was eliminated, collection management–related tasks were temporarily unassigned and not being completed. After a period of about two and a half years, it became evident that some of the duties were critical to the success of Cook Library and its mission. Thereafter, the majority of collection management duties were reassigned to the acquisitions librarian, who volunteered to take them on with the approval of the dean of University Libraries. This reassignment of duties became official October 2015, and a merged position now referred to as the collection management and acquisitions librarian was created.

BEFORE THE MERGER: ACQUISITIONS AND COLLECTION DEVELOPMENT ROLES AND RESPONSIBILITIES

The acquisitions librarian's primary responsibility before the position merger was to manage the daily operations of the Acquisitions Unit. Prior to the merger, Acquisitions included, in addition to the librarian, four full-time staff, later to be reduced to three as a result of workflow changes. The three remaining staff positions consisted of an acquisitions supervisor, cataloging specialist and an acquisitions specialist. The acquisitions supervisor, then and now, ensures payment of all materials—print, electronic, media, and so on. This position sets up new funds and reconciles accounts, does fiscal year close, and runs expenditure reports. The acquisitions specialist is responsible for ordering e-books, print materials, and media. In addition to placing orders, this position receives and processes new material gifts. The cataloging specialist receives purchased materials and performs some copy cataloging. Both the acquisitions librarian and the acquisitions supervisor are cross-trained to order materials. The acquisitions librarian is also cross-trained to receive new physical items, key in invoices and process material gifts.

Acquisitions is responsible for ordering and receiving new materials via firm order and/or approval plan for all university libraries. In addition, acquisitions staff ensure that unit policies and procedures are created and updated routinely so that the unit follows audit requirements and maximizes productivity. Unit personnel manage and expend the acquisitions budget while monitoring workflow, suggesting opportunities for improvements when appropriate and resolving daily operational challenges. This includes identifying priority conflicts, issues of workload, operational efficiency, and coordination. Acquisitions staff also formulate proposed courses of action to ensure that all objectives and deadlines are being met. In addition to acquiring new purchased materials, Acquisitions manages the material gifts program. Gifts are received, evaluated, processed for collections, and sent either to the Libraries book sale or to other disposal pursuant to the State of Mississippi guidelines. Final processing and disposal of deselected library materials are also assigned to Acquisitions.

Before the merger, the acquisitions librarian collaborated frequently with the associate dean for collections and scholarly communication to allocate funds and to account for approval and firm ordering materials. The acquisitions librarian also assisted the associate dean by providing information and reports on collection spending as requested. There were several areas that overlapped between these positions that contributed to frequent collaboration. Both positions oversaw the approval plan and worked heavily with the librarian and department faculty liaisons in the liaison program. In addition, they were also both responsible for establishing and maintaining effective relationships with book vendors and electronic service providers and communicating with current and prospective vendors.

The acquisitions librarian was charged with assessing vendor service performance and pricing in addition to renegotiating discount/pricing structures wherever possible. This position ensured monthly reconciliation of all funds with campus ledgers and supervised staff, as well as student workers, assigned to Acquisitions. The acquisitions librarian tracked and reported unit productivity as well as usage data and financial statistics as requested. The acquisitions librarian produced financial reports from the integrated library system that tracked monies allocated, encumbered, and expended for different types of

collections and subject areas. In collaboration with the associate dean for collections and scholarly communication, the acquisitions librarian participated fully as a librarian liaison in the liaison program. The liaison program consists of a liaison from each academic department who works with the library on collection management activities such as ordering and cancellation of resources. The program also consists of librarian liaisons who work with academic liaisons. Before the position merger, the structure of the liaison program was such that each of the academic departments for the Hattiesburg campus were assigned fairly evenly among the librarians at Cook Library. There is a separate structure for the Gulf Coast campus.

The associate dean for collections and scholarly communication, in addition to other duties, had responsibility for the overall supervision and administration of library collection management. This position was in charge of leading the planning process for collection management to ensure that activities were congruent with the University Libraries' mission and goals. The associate dean for collections and scholarly communication managed all areas of collection development, including setting annual goals and objectives with strategies for accomplishing them. Collection management activities included providing leadership, training, supervision, and evaluation of librarian liaisons in collection development duties through the liaison program. This position also managed the approval plan with the help of the acquisitions librarian. The associate dean negotiated with vendors and publishers and planned budgets, which consisted of allocating monies each fiscal year for all departments by type of resource. The associate dean spent large amounts of time tracking expenditures, producing budget reports and analyses, and developing policies and procedures.

AFTER THE MERGER: COLLECTION MANAGEMENT AND ACQUISITIONS

After the position merger the acquisitions librarian continued to manage the daily operations of the Acquisitions Unit. After the associate dean for collections and scholarly communication position was vacated, the acquisitions librarian immediately became responsible for

creating department allocations. This was the only duty that was critical enough to be continued during the time the position was vacant.

After several years of having minimal collection development responsibilities, the acquisitions librarian volunteered to pick them up and was named the collection management and acquisitions librarian. Duties from the former associate dean for collections and scholarly communication position added to the new merged position included supervising and managing collection development policies and activities, coordination and assessment of the liaison program, and monitoring the development of the collections. In addition to developing collections, overall management duties such as deselection of materials were also assigned to this new position. The collection management and acquisitions librarian is also chair of the Collection Advisory Committee in place of the head of Technical Services, who would otherwise fill this role—a position that is currently empty. The dean of University Libraries was chair of the Collection Advisory Committee immediately prior to the merge; however, with these new collection development responsibilities, it seemed a logical fit for the collection management and acquisitions librarian to fill this role.

Merging the position seemed like a practical and logical step since there was so much overlap between the positions. So far the merger is working very smoothly. Since the merging of these duties, many changes have been made, and new processes and procedures have been created and put into practice. Many processes have been streamlined, which saves time. There is better communication among Acquisitions, the librarian liaisons, and the faculty liaisons. The merger also created the ability to share information about the budget, new ordering procedures, deadlines, and gifts in a more timely manner because there is no intermediary, the former associate dean for collections and scholarly communication. Moreover, the collection management and acquisitions librarian now has the authority to communicate directly with stakeholders and lead the Collection Advisory Committee. Having more freedom to make changes to ordering procedures and deadlines has made ordering materials quicker and easier for acquisitions staff.

It was not common practice in the past for The University of Southern Mississippi to remove materials from its collections, and there was no deselection policy in place. This became one project for the collection management and acquisitions librarian to create.

The deselection policy document was developed with the assistance of the members of the Collection Advisory Committee, which consists of the following: head of Gunter Library (Gunter Library), health and nursing librarian (Cook Library), arts and letters librarian and collection management librarian (Gulf Coast Library), education and psychology librarian (Gulf Coast Library), science and technology librarian (Cook Library), education and psychology librarian (Cook Library), arts and letters librarian (Cook Library), science, health, and nursing librarian (Gulf Coast Library), curator of rare books and Mississippiana (McCain Library), head of Special Collections and curator of historical manuscripts and archives (McCain Library), head of Public Services (Cook Library), collection management and acquisitions librarian (Cook Library), acquisitions supervisor (Cook Library), and the serials librarian (Cook Library). The subject librarians at Cook Library gave input on the content of the policy in their areas, and the committee as a whole reviewed the final document. The document has been completed and implemented for the main library, Cook. However, there are plans for duplicating it, with some tweaking as appropriate, for the Gulf Coast Library if possible. This policy will help form procedures for the Acquisitions Unit, such as what to do with older editions of materials that are in the Libraries' collection when new editions are purchased or come in as gifts. It will also establish a plan for ongoing deselection or weeding of the collections as outlined in the policy.

As a duty of managing the liaison program and as part of the new procedures, the collection management and acquisitions librarian developed form letters to be used for issues surrounding deselection and for communications with faculty regarding the budget. These will be used by librarian liaisons to help ensure consistent messages to faculty. Although not directly connected to the merger, the structure of the liaison program has changed since the merger model was implemented. The University of Southern Mississippi currently has six colleges on the Hattiesburg campus: Arts and Letters, Business, Education and Psychology, Health, Nursing, and Science and Technology. Each librarian liaison works with all academic department liaisons in his or her assigned college. The librarian liaisons currently consist of only the reference librarians in Cook Library. Due to budget cuts, at the present time there are only four reference librarians, who

split the six colleges. Each librarian liaison is assigned a college; one librarian liaison has two colleges assigned, and the remaining unassigned college is split among the four librarians. The University will soon undergo a restructuring that will reduce the colleges to four and changes with librarian assignments will take place.

BENEFITS OF THE MERGED POSITION

The collection management and acquisitions librarian has been very successful at opening up communication with librarian liaisons. It is hopeful that future budgets will improve and allow for purchase of software to assist in a broad collection assessment. This assessment should identify holes in collection areas. Since this position creates firm allocations, there is the potential for more input for allocating to areas that need building in the future. Currently, the collection management and acquisitions librarian is working closely with the Collection Advisory Committee to establish a deselection policy and to perform a large collection evaluation and deselection project in preparation for upcoming building renovations. Communication has become much quicker. There has been more direct interaction with librarian liaisons regarding budgets, ordering, and gifts, aiding in easier and quicker ordering.

Through this increased interaction with the librarian liaisons, it was easier to see what parts of their collection management duties were going well and which needed some changes. Due to the loss of a reference librarian through retirement, the rest of the reference librarians were required to pick up additional duties as this position was not going to be immediately filled. The collection management and acquisitions librarian assumed the majority of gift evaluation duties to open up more time for the reference librarians to focus on their other liaison duties, as well as instruction. There were limited guidelines to help the collection management and acquisitions librarian with these duties, but this will be rectified with the creation of the deselection policy. In addition to aiding in identifying items to deselect, the new deselection policy works with the general collection development policy to create guidelines on what the library should and should not have in its collections.

DISADVANTAGES OF THE MERGED POSITION

The merged position of collection management and acquisitions has mostly been beneficial to workflow, allowing forward movement with duties that had been neglected for some time. However, a disadvantage has been the increased responsibility and workload on one person. This has caused some challenges and rethinking of processes. The acquisitions librarian had theoretical but limited practical knowledge of the newly acquired duties. This resulted in a slow start to some activities as there was a learning curve. Having someone with more experience may have made for a smoother transition.

This addition of duties to the acquisitions librarian may also have been a little easier had procedures and organized notes or documents been in place, such as the deselection policy. Even though changes still would have been necessary, they would have been easier to update or build on to existing procedures rather than creating new ones from scratch. Other obstacles, although uncontrollable during the period prior to and after the merging of these positions, have been a series of budget cuts and loss of staff, which not only impact workload but also library collections as well.

CONCLUSION

Overall the decision to merge collection management and acquisitions responsibilities into one position has been a good one, although the transition process would have benefited from better organization, particularly with regard to having procedures and policies already in place for collection development and overall collection management tasks. Assigning the new duties to someone with prior collection management experience would have aided in this area. Because of a lack of prior experience with collection management, the collection management and acquisitions librarian is using a team-based approach to incorporating new procedures and policies as well as making general collection management decisions. While this contributed to a slow start, it seems to help with communication and allows for more input from fellow librarians, which facilitates better working relationships. Processes have improved with the elimination of having two people

in charge of the same work, which occasionally led to confusion. The ability to more freely communicate with the librarian liaisons has been exponentially productive. Information can now be more consistently conveyed to teaching faculty, allowing questions or issues surrounding budgets and ordering to be resolved quickly. While the merger was borne out of necessity, it may have nonetheless been a logical and efficient move. It ultimately makes for an easier collection development workflow, and it has increased input from library staff, adding additional expertise in collection development policies, procedures, and decisions.

CHAPTER 3

Acquisitions and Collection Management Collaborations: Weathering the Storm With Stagnant Budgets and Unpredictable Vendor Landscapes

Delphia Williams and Christina Mayberry

Libraries need to foster collaboration within and outside the library to ultimately succeed in providing users with the information they need. In particular for acquisitions and collection development, working together to foster good communication and a willingness to try new things is crucial. Overcoming obstacles such as stagnant budgets, collapse of the vendor market (with one vendor swallowing another), introduction of new material formats and purchasing models, lack of standardization, and misconceptions by both the campus community and library personnel are huge hurdles with which to contend.

California State University, Northridge (CSUN), is one of the larger California State University campuses. There is only one library on the CSUN campus, the Oviatt Library. The Oviatt Library is a four-story, 230,000-plus-square-foot building strategically located in the center of campus. Aside from supporting our 40,000 students, the Oviatt Library is charged with supporting our faculty's research needs and the needs of the surrounding community. According to the Oviatt Library website, the library "has a physical collection containing 1.4 million volumes of which over 1.1 million are books and over 250,000 are bound periodical volumes. The library subscribes to 50,944 online journals, nearly 2,300 print journals, over 200 online databases and 277,361 e-books. The microform collection contains 3.2 million pieces. There are nearly 14,000 sound recordings, over 19,000 film and video recordings and nearly 60,000 pictures and other graphic materials. The archives and manuscript collection exceeds 4,200 linear feet of

materials.”¹ This statement is a snapshot in time as the number of resources is always changing, and of course all these resources come with a price.

The Oviatt Library is divided into its two traditional parts: public services and technical services. The technical services division is called Collection, Access and Management Services (CAMS). Acquisitions falls under the CAMS umbrella and includes ordering and receiving of monographs, serials receiving and management, physical processing of materials, including the binding operation, and accounting and invoice processing. Acquisitions is responsible for equitably dispersing and monitoring the collection budget, which supports nearly 80 disciplines and programs across the campus. Collection Development also falls under the CAMS umbrella and consists of print and electronic resource management. Collection Development works closely with subject specialists in the selection of materials to support what is being taught in the classroom and independent research.

IT ALL STARTS WITH FUNDS

A primary piece that needs to be in place before selections can actually occur is the funds structure. Determining how funds are to be allocated is one of the most crucial pieces of the workflow that requires close collaboration between Collection Development and Acquisitions. Working together, the Oviatt Library Acquisitions and Collection Development teams restructured funds to better reflect campus organization. The old funds structure was a mix of departments, programs, and areas but did not represent the complete set of campus offerings. To restructure funds, the teams met and designed a more equitable structure and presented the options to the subject specialists. After discussions that were led by Collection Development and Acquisitions, it was decided to expand the existing structure to account for every department and program on campus and remove subject areas that were not a specific department or actual program. Acquisitions and Collection Development then collaborated on redesigning the allocation formula. The resulting funds structure and allocation formula allows for more granular data collection to support collection and

budget analysis. Both Acquisitions and Collection Development continue to work together, reexamining the allocation formula to capture resource usage and needs of users.

Once Acquisitions disperses the collection funds, Collection Development partners with the subject specialists to ensure resources are selected that serve the research and curricular needs of students and faculty. Collection Development monitors selections and conducts periodic reviews of the collection, continually evaluating the selections to ensure that they meet the parameters set forth in the library's policies and support the curricular standards set across campus. Once selections are made, Acquisitions determines the best sources for purchase and acquires the material, receiving it, processing payments, and physically preparing print materials to be shelved and circulated.

Whether working with print or electronic resources, Acquisitions and Collection Development move in sync. Constant communication between the two units is imperative. Acquisitions monitors the acquisitions networks. Collection Development monitors their channels, and the information from these networks is shared. The information gathered from these networks is often utilized to inform workflows and update procedures.

One of the most important issues with the provision of information resources is cost. In 2002 the Oviatt Library's budget seemed healthy and strong with 32,000 students to support. Unfortunately the budget's growth has not matched the growth of the campus population, the community the library is expected to serve, or inflation. In 2017 the budget is exactly the same as it was in 2002, though there are 10,000 more students to serve and 12 years of inflation to combat. As a result, the library has lost buying power. The library is not able to afford as many materials with a stagnant budget and rising prices. It is more difficult to add new resources and incorporate new and changing formats. Some sacrifices are made every year.

Staying afloat in the current climate requires all stakeholders to bring creative ideas to the table and a willingness to work together toward the library's and university's missions. Acquisitions and Collection Development employ many elements to make collaboration successful. First and foremost, both areas agree on the primary goal of providing resources for students, faculty, and the community. Keeping

that goal in sight, agreeing on the roles played by the stakeholders, keeping the lines of communication open, and working together to overcome obstacles and address problems keeps Acquisitions and Collection Development moving forward. Regularly scheduled meetings, touching base daily, and listening to and engaging each other promote teamwork, and the occasional lunch away from the office never hurts.

The continual rise in resource costs is an ongoing problem. Year after year, the cost of journals increases an average of 5%. When your budget increases by 0%, you very quickly find yourself underwater if you do not employ some creative strategies to keep treading water. The lion's share of the collection budget is dedicated to maintaining the over 200 online databases provided by the library. Some academic libraries have had to discontinue purchasing monographs in favor of supporting databases. The Oviatt Library has managed to continue purchasing monographs through some creative maneuvers. Acquisitions established deposit accounts with some of our larger vendors. At the end of each year, we scrape together funds gathered from a variety of sources (unspent funds, one-time monies, etc.) and place them on deposit with a vendor. At the beginning of the next fiscal year, in consultation with Collection Development, a portion of the deposit funds are allocated for the purchase of monographs. At the end of each fiscal year, scraping together the remaining funds and placing them on deposit allows for the purchase of monographs for another year. This strategy allowed for spending money on monographs through the lean years (2008–2010) despite reduced budgets and no guarantees of funding.

STAKEHOLDERS: PARTNERS IN PURCHASING

Continuing to involve stakeholders has also resulted in occasional windfalls. We have learned to reach out to and partner with various academic departments across campus to bring in some much-needed new resources. Trialing and promoting new resources, like the latest database for analyzing data, has brought new partners to the table. Once hearing from their faculty, deans from other departments have been willing to carve out a share of their budget to support a new resource.

Looking for ways to partner with the campus community has become a part of how subject liaisons, the library dean, and the collection development coordinators think. As a part of their tuition and fees in 2008, students began paying a Campus Quality Fee (CQF). These funds were earmarked to support student services. Each academic year, students vote on a variety of proposals submitted from campus entities. The Oviatt Library has submitted a number of proposals since the first year CQF funds became available. Students have voted to support the purchase of streaming video collections, collections of electronic books, and reserve textbooks.

Changes in the world of vendors make for some agonizing situations. The fall of Swets, the closing of Book House's doors, and the rise of the super vendor have left libraries floundering. Many lost thousands of dollars with the Swets bankruptcy and struggled to recover. The closing of Book House meant fewer purchasing options. Acquisitions and Collection Development both agreed that diversifying the library's subscriptions and purchasing them from a variety of sources was best for the collection and would allow the budget to stretch a little further and increase selection options. The collapse of the market has made this plan difficult. With fewer vendors and subscription agents to choose from, libraries are at the mercy of vendors and their pricing models. To get the most from each dollar, Acquisitions and Collection Development approach vendors as a united team. In meetings with vendors or subscription agents, both Acquisitions and Collection Development are always represented. This united front has made it easier to walk away from big deals and to ask vendors to work with us to meet our resource and pricing needs.

The Oviatt Library has also taken advantage of being a part of a consortium. As part of the California State University (CSU) system, the Oviatt Library has the opportunity to participate in two consortia partnerships. Resources are purchased consortially through the CSU Chancellor's Office or as part of the Statewide California Electronic Library Consortium (SCELC). As a member of these consortia, the Oviatt Library may subscribe to big ticket resources at a reduced rate. Some resources are centrally funded by the Chancellor's Office, but again, as one of the larger of the CSUs, Northridge often pays to buoy its smaller siblings.

COLLABORATING TO IMPROVE WORKFLOWS

Many of the collaborations between Acquisitions and Collection Development have resulted from a need to improve a workflow or process that is not working well or effectively. One such example is that of the provision of streaming video by the library. In fall 2014 it was determined that current video streaming activity needed to be reconsidered and that a decision tree for incoming video requests needed to be created. There were so many factors to consider for streaming video and the cross-departmental work was becoming cumbersome. It was also very confusing for faculty making video requests. A Video Streaming Decision Tree Committee was formed with librarians and staff from various units within the library, including Collection Development, Acquisitions, and Music and Media. The Committee met throughout the fall semester and conducted brainstorming sessions which resulted in the creation of a detailed decision tree that accounts for the complexities of streaming media, as well as a corresponding worksheet to record the decision process and a new online form for submitting video requests. The new decision tree, worksheet, and online form were put into practice in the spring 2015 semester. The resulting workflow reduces duplicated efforts, records the research and outcomes for each video request, streamlines the entire process, offers transparency and accountability, encourages efficient communication, and promotes consistent messaging to library users. To see our actual decision tree and worksheet, go to <http://hdl.handle.net/10211.3/196123>.² Although the result was a great improvement over the previous process, the following challenges still exist: the worksheet is paper based, a collection development policy specific to video is needed, the streaming video marketplace is dynamic, there is no one-size-fits-all solution, and there will always be exceptions.

Another example is that of the binding of library materials. In fall 2014, after all bound periodicals were moved to the Oviatt Library's automated storage and retrieval system housed within the library building, a moratorium was placed on all shipments of library materials for binding. This moratorium was placed to determine necessity and cost-effectiveness of sending library materials for binding. A committee was formed with librarians and staff from

Collection Development, Acquisitions, and Cataloging. The committee was charged with making a recommendation on the future of library-related binding. Its recommendation was to include an analysis of current binding practices and costs and review suggestions for more efficient workflows. The committee met throughout the fall semester and reviewed the literature, surveyed the other campuses in the CSU system, gathered data on the current binding practices, researched and discussed alternatives to binding, and offered a plan of action. Ultimately, the committee determined that there was no all-or-nothing solution. As a result, the amount of library material that is sent for binding has been reduced, and the plan of action outlined in the committee's recommendation is being followed.

IN THE END

The word or theme that bobs to the surface at every juncture is communication. The CSUN Oviatt Library has been successful in many situations due to the willingness of faculty and staff to communicate clearly and frequently with one another. Also, understanding the library's and campus's missions and goals helps to focus the activities of the Collection Development and Acquisitions teams. Assembling teams and clearly outlining goals early on will ensure reaching those goals, as will involving stakeholders in decision-making. The willingness to be flexible and to roll with the changes is also much needed. Working across campus brings new possibilities and sometimes an infusion of resources to help with the mission. When Acquisitions and Collection Development act as a united front, there is no room for others to undermine progress. Reexamining funds structures together brings new insight. Acquisitions may prefer having fewer funds to balance every month, but Collection Development may need more granular data. For instance, Acquisitions may prefer one fund for the College of Science and Mathematics, but Collection Development may need to know how much money was spent to support graduate students in physics. Designing a structure that takes into account the needs of each may require more work at one level to reduce the amount of work at another.

NOTES

1. “Collections Overview,” CSUN Oviatt Library, updated August 29, 2017, <http://library.csun.edu/Collections>.
2. Mary Wahl and Christina Mayberry, “Take Two! Revamping Collection Development Workflow for Streaming Video Collections” (presentation, Technical Services Workflow Efficiency Interest Group of the Association for Library Collections and Technical Services at the American Library Association Annual Conference, San Francisco, CA, June 29, 2015).

CHAPTER 4

Collaborative Collection Development: Leveraging the Skills of Cataloging Staff to Perform Collection Development

Scott Piepenburg

Resources acquired by a library but not cataloged represent a lost resource to users. If an item is not cataloged but sitting in either an acquisitions or a cataloging department waiting to be cataloged, it is invisible and inaccessible to users. This is why, as a cataloger, I have always made the best attempt to move items through the cataloging department as quickly and accurately as possible.

In my last two positions I have encountered a similar situation: a large quantity of gift items that had been allowed to languish. Neither had they been evaluated for addition to the collection nor did anybody really understand what had been donated. As a matter of background, each institution is similar in structure—both are public universities offering a comprehensive educational experience as well as focused programs in selected areas. In addition, they have comparably sized student bodies, staffing, and physical collections.

The particular items in question for this project were approximately 8,000 to 10,000 donated record albums. This number was ascertained by measuring the number of linear feet of the collection. Experience has taught me that there are approximately 6.5 albums to the inch. While not a perfect measurement, it is surprisingly accurate, yielding a count that is ultimately within 2% of the actual value. A quick check of the collection showed them to be predominantly classical with some jazz and popular albums mixed with a healthy dose of soundtracks and sound effects albums.

Conversations with the acquisitions staff brought out the feeling that while there may have been some usefulness at one time to the donations, this had waned due to the predominance of CDs and streaming music. While it's true that there has been a resurgence in vinyl, with companies reopening vinyl pressing facilities, there is also the likelihood that there are some gems or unique titles in the collection not readily available in other formats. In addition, the prevalence of USB-enabled turntables and sound-sampling applications such as Audacity has made it easier than ever to capture this material for leisure, performance, and educational purposes. They also agreed that while it would be nice to make the items accessible, they did not have either the time or the resources to evaluate the materials—nor was funding available to hire a rare-records specialist. I observed that while probably there were not items of particular collectible status in the collection, if found they would be turned over to the acquisitions staff.

An unexpected source of opposition to the project came from some of the library's media people, who felt that we would be in violation of copyright laws by making listening stations and output to portable devices available. An analogy was drawn between our turntables and copiers. We post copyright notices next to all of our copiers and agreed to do the same with the listening stations that had been installed near the record collection.

With the go-ahead from the acquisitions staff, I developed a general outline for evaluation. Having a love of music and being an audiophile, although lacking a formal education in music, I indicated that I was willing to take on the project, subject to guidance and final approval from the acquisitions staff. This included developing parameters for evaluation and a process for approval and ultimately forwarding non-retained items to the acquisitions staff for final disposition.

SELECTION CRITERIA

In the process of developing the guidelines, I met with acquisitions staff who were the liaisons to the music program as well as with selected staff in the Music Department. Since we had previously initiated a

comparable program to evaluate a large collection of donated scores, the door had already been opened for collaboration with that department. Ultimately, we devised the following criteria:

1. If the selection exists in another, more advanced form, such as CD or streaming, do not retain.
2. If the selection is from an underrepresented genre in the collection, such as jazz, new age, or alternative interpretations, or it is not held or has limited holdings in OCLC, prefer retention.
3. Prefer the retention of all musicals, soundtracks, and sound effects recordings; this was done to support the theatre arts productions and creative graphics programs.
4. Prefer retention of ethnological items (music of China, music of Africa, music of indigenous peoples, etc.).
5. Items in poor condition with extensive scratches, warping, or overplaying on an inadequate system, along with labels that had significant “hunt lines,” should not be retained.
6. Prefer retention of works by American composers, American musical genres, and American performers/orchestras, particularly those orchestras with a small body of recorded material.
7. Prefer retention of individual works as opposed to anthologies. This was interpreted to mean that thematic collections by organizations such as Time Life, K-tel, and Reader’s Digest would not be retained.
8. Do not retain any items in 16 rpm or 78 rpm. If of significant historical value, consider reformatting to a digital form.
9. Retain items of local composers and performers.
10. Prefer non-retention of covers if original recordings are readily available.
11. Prefer retention of an item if the disc, jacket, liner, or sleeve notes are of significant value or information.
12. Ultimately, exercise professional discretion and interpretation regarding these guidelines; in all circumstances, professional experience and knowledge shall supersede these guidelines.

CONCEPT TESTING

After these guidelines were vetted and approved by acquisitions staff and representatives from the Music Department, 100 titles were selected at random from the collection to do a trial run on the process. First, the cataloger evaluated the titles and separated them into either a retain or a discard category. The items were then forwarded to the music liaison in Acquisitions to evaluate the selections in light of the criteria established and the focus of the Music Department. After the evaluation by the liaison, a meeting was scheduled between me and the acquisitions representative to discuss the results. We reached a consensus that overall good evaluations and decisions had been made, with some questions regarding the thought process on a few titles. After clarification, it was decided to move ahead with the process.

Since Cataloging also had an extensive amount of work to do with current purchases, a limit was placed of no more than 100 items to be retained per week. This was because while items may have been cataloged, they still had to be physically processed and shelved. A meeting was scheduled with Stacks Management to alert staff to the project and to ascertain the shelving structure. In the first facility, the items had been stored in an open area on special wide-width shelving. The decision was made to reshelve the items there, starting with recently vacated space from the removed items. In the second library where this plan was utilized, the record albums were added to an existing collection in a dedicated music room that also held scores and other music-related resources. In the first collection, items would be assigned the appropriate Library of Congress (LC) call numbers in an attempt, whenever possible, to develop a correlation between an owned score for the work and the relevant recording. This decision paid dividends when the library moved to a new discovery tool offering virtual browse functionality based on call numbers with all of the similar items shelved together virtually. In the second library, a continuation of the accession number-based system was retained due to space limitations.

IMPLEMENTATION

Each day, approximately 50 to 100 titles were taken off the shelves, working from left to right, top to bottom. These items were then evaluated for retention. The retained items were then cataloged, with each week's output being placed on a truck for processing. Cataloging adhered to existing department guidelines. In summation:

1. Full authority work to be done on all relevant entries.
2. Entries to be made for all performers/artists, up to a limit of five for each function (five singers, five instrumentalists, five composers, etc.).
3. Contents note to be made for all retained selections.
4. 7XX entries to be made if there were five or fewer selections on the album, or retained if they already existed in the record.
5. Preference to be given to utilizing entries created by LC or by other libraries that had demonstrated significant holdings of recordings and/or a strong reputation for good cataloging.
6. Conversion of all records to RDA standards where necessary.
7. Coding of 007 and 0XX fields as appropriate.
8. Recording of performance and capture date when available.

As the collections had been moved, they were not necessarily in the order in which they had been received. A phenomenon observed was that on some days there would be a very high retention level, yet on others, nothing might be retained. Where necessary, an email was sent to the library Music Department liaison or to Acquisitions for guidance or interpretation. During the process, approximately 2% of the items required original cataloging in OCLC. This cataloging was done at full level with full authority work done according to RDA standards. Care was also observed in noting the retention of the item in the collections of other institutions in the state desiring to adhere to the last copy retention guideline, although this was not considered to be the highest priority.

Ultimately, the process took between 12 and 18 months. The biggest bottleneck in the system was the disposal of non-retained records.

No vendor could be found that desired them, so a large number were placed on the free items shelf for the university community. Other titles were simply discarded.

RESULTS

At project end, we ascertained a retention level of about 5%. While this seems low, one needs to remember that these were donated items from personal collections. We experienced a higher rate of retention in jazz and new age along with a higher retention value in band recordings consistent with the programs at the institution. There was a lower rate of retention in classical music as many of the titles and selections were owned on CD. We also realized a very high retention of older show tune and musical recordings. As a general rule, if there were multiple recordings of the same production, for example *The King and I*, all copies were retained to facilitate a comparison/contrast interpretation—particularly useful if the production in question was being considered for presentation or performance locally.

There were some unexpected results. The first was that adding such a large number of composers and performers to the database had the effect of updating many of the existing authority headings in our holdings since all items were sent to our authority processor. This also had the side benefit of enhancing facets and related searches in our discovery tool. This process has been so successful that it is being utilized, in a slightly modified form, for working through a collection of donated CDs. It has helped to forge a closer bond between Acquisitions and Cataloging, particularly in the areas of weeding of nonprint materials, and it has served to improve the quality of our collection and retrieval as all items that were retained had their cataloging records upgraded to current RDA standards, along with multiple tracings, contents notes, and other pieces of coded information.

Another benefit we had hoped for but that unfolded differently than we expected was that some students ascertained that a significant number of vinyl records were going into the collection, possibly because of the new titles function of our OPAC. We actually had students coming into Cataloging looking for new titles, which told us

that people were using that feature of our OPAC. Another side benefit was that we noticed an uptick in requests and use of our scores. This increase became so prevalent that Cataloging ultimately designed a guide for reference staff to use in assisting students and faculty when asked for help finding a specific piece or selection. Perhaps the most surprising but assuredly the most valued result was that music and theatre arts faculty started asking library staff for more information on the collection. They had been unaware of the extensive nature of the library's collection to support their programs, in terms of materials such as scores, CDs, albums, and videos as well as of library staff support in the areas of bibliographic instruction and collection development policies. These outcomes, while unanticipated, will no doubt help drive utilization of the collection and library staff in the future.

PART 2

Collaborations Between Acquisitions and Cataloging

EDITED BY VICKI SIPE

Collaborations between acquisitions and cataloging departments are probably among the longest standing of any collaborations discussed in this book. In many institutions these departments have shared a backroom view of the library where they performed the tasks broadly labeled as technical services. The adoption of integrated library systems (ILSs) by libraries in the early 1990s ushered in a wave of reorganizations in technical services that drew acquisitions and cataloging into even closer relationships. Yale reorganized its technical services departments in 1989 as it implemented NOTIS, its new integrated online system. The bulk of the acquisitions and cataloging functions previously handled in separate departments went to the newly created Processing Services Department. The new department consisted of teams based on either subject, language and geographic area, or constituency (Rare Books). Most of these teams were responsible for a full range of functions including acquisitions, serials controls, authority control, and cataloging within their area.¹ The physical reconfiguration of the library and the implementation of NOTIS at Syracuse University in 1991 also led to the combining of its Acquisitions and Cataloging departments into one department called Bibliographic Services. The new department consisted of four groups all reporting to the same head of

Bibliographic Services: the Monograph Unit, Serials Unit, Receiving/Accounting Unit, and Database Management Section. Staff for the Monograph Unit consisted of monographic searchers and catalogers from both the former Acquisitions and Cataloging departments.² At Miami University Libraries, by 1990 the migration to an online catalog and an ILS resulted in the integration of many separate processing units into a single Technical Services Department. The Acquisitions and Cataloging departments were among the units merged into the single department. A rethinking of workflows followed the creation of the Technical Services Department and resulted in a blurring of the traditional functional divisions between Acquisitions and Cataloging. “Now the new order team was bringing in cataloging records from OCLC and the new receipt team, composed of copy catalogers rather than acquisitions staff, was receiving the books.”³

Workflows combining functions involving ordering or receiving and copy cataloging have been in place at many institutions since the 1990s. The University of Oregon utilized the implementation of a fully integrated Innopac system in 1991 to discuss workflows in Technical Services. Though the organizational structure did not change, some work shifted. The University of Oregon Libraries implemented a cataloging-on-receipt workflow it called FastCat in early 1992. Acquisitions staff began to search, order, and receive and added some cataloging. Copy catalogers began to search and continued cataloging, though it became generally more complex cataloging. The process relied upon the availability of high-quality records, which implementers felt could be used without checking or editing.⁴ By 1991, SUNY at Buffalo had shifted two-thirds of monographic copy cataloging to acquisitions staff trained in copy cataloging. Prior to August 1991, acquisitions staff were performing preorder searching, as the NOTIS acquisitions module required a bibliographic record at time of order. Later that year, copy cataloging on receipt was shifted from the Monographic Cataloging Section to Acquisitions.⁵ Northwestern University, the developer of NOTIS, reorganized its Central Technical Services in the late 1990s to make the most of its new system, Voyager, and in response to a huge push to create orders. The Monographic Acquisitions and Rapid Cataloging (MARC) Department was formed of staff coming from the Serials and Acquisitions Department and the

Bibliographic Records Services Department. The MARC Department ordered, received, invoiced, and copy cataloged monographs.⁶

At the University of Mississippi, selecting a bibliographic record prior to order, or preorder cataloging, had been put in place following the installation of an ILS in late 1993. After a merger of Acquisitions and Cataloging into the Bibliographic Services Department in 2001, a system of cataloging at point of order was developed, with staff trained in ordering, receiving, and cataloging.⁷ The University of Washington Libraries had tested cataloging-on-receipt in acquisitions since the mid-1990s. By 2003, it had created a workflow that integrated the use of online ordering tools, the OCLC PromptCat service, the local ILS (Innovative Interfaces, Inc.), and some in-house data processing to identify items requiring special attention.⁸ Pennsylvania University Libraries examined the complete monographic acquisitions and cataloging workflow in 1999. One of the proposed changes identified in the process was to enter the best bibliographic record as early as possible in the workflow. Attention focused on training acquisitions services staff to search utilities for a best record that could be used while receiving. With implementation, acquisitions staff began to import records at the ordering stage. The new workflow resulted in an increase in work for those doing original and complex cataloging in Cataloging Services. It seems that the earlier in the process “an attempt is made to catalog an item, the less likely there will be good cataloging copy available for it.”⁹ A cataloging-on-receipt (CoR) pilot project begun at UCLA in 2009 had personnel from the Cataloging and Metadata Center (CMC) training print acquisitions staff on cataloging tasks. Acquisitions staff were integrated “into the same workflow employed by CMC staff.”¹⁰ In its first phase, the project relied upon the use of full-level records from the Library of Congress or the Program for Cooperative Cataloging (PCC), a fairly common guideline in many of these workflows. Acquisitions staff found themselves making tradeoffs as fiscal concerns that required an increased focus on purchasing meant less copy cataloging. As noted by the author, “the CoR workflow is an ongoing collaboration between both departments, which will entail continued open communication and cooperation.”¹¹

The four contributions to this part on collaborations between acquisitions and cataloging are presented against this background of

reorganization and merged workflows. Several highlight the development of the next generation of ILSs, and the local changes resulting from the new environment.

Stacey Marien and Alayne Mundt in their chapter “Developing New Collaborations Between Acquisitions and Cataloging at American University: Rapid Cataloging and More” document a spirit of collaboration between Acquisitions and Resource Description developed through a series of specific projects. Setting the context for these projects was a restructuring of Technical Services that was driven, at least in part, by a desire to increase cataloging capacity for nonprint materials and the provision of metadata.

Laura Kohl, Chris Johnson, and Sever Bordeianu’s “Case Study of the University of New Mexico’s Integration of Workflows in WMS” describes how the migration to a next-generation ILS provided the impetus to develop collaboration across department lines. The cloud-based environment made new workflows possible and resulted in new work assignments and cross-training for staff in acquisitions and cataloging functions.

In “The Times They Are A-Changin’: Workflow Collaboration in the Information Age,” Lisa Kallman Hopkins presents three scenarios of migration to a next-generation ILS. The new systems meld many functions into a single platform, enabling workflows that cross the traditional acquisitions and cataloging divide. Opportunities for changes in staffing and workflows are discussed.

In “Partnering for Change: Collaboration Between Acquisitions and Cataloging at the University of Maryland Libraries,” Bria Parker, L. Angie Ohler, and Nathan Putnam discuss the long-standing cooperation between acquisitions and cataloging units and the strain placed on these arrangements by the growth of electronic resources. At the University of Maryland Libraries the transition to a new discovery layer focused attention on gaps in staffing and skills. To meet these challenges, the Libraries began an iterative process of reorganization that has allowed lessons to be learned from each step and applied to the next.

As made clear in these contributions, new challenges abound for acquisitions and cataloging. Our colleagues provide us with suggestions on how we might meet the challenges to come and demonstrate

through their examples that open communication and collaboration remain at the heart of transforming challenges into opportunities.

NOTES

1. Cynthia Crooker, Robert Killheffer, and Cecile Mandour, "The Reorganization of Technical Services at Yale," *Technical Services Quarterly* 9, no.1 (1991): 27–41, https://doi.org/10.1300/J124V09N01_04.
2. Rosann Bazirjian, "Automation and Technical Services Organization," *Library Acquisitions: Practice and Theory* 17, no. 1 (Spring 1993): 73–77, [https://doi.org/10.1016/0364-6408\(93\)90033-3](https://doi.org/10.1016/0364-6408(93)90033-3).
3. Elizabeth Brice and Ross Shanley-Roberts, "Beyond the Catalog: The Evolution of the Technical Services Librarian at Miami University, Oxford, Ohio," in *More Innovative Redesign and Reorganization of Library Technical Services*, ed. Bradford Lee Eden (Westport, CT: Libraries Unlimited, 2009): 14.
4. Nancy Slight-Gibney, "FastCat," *The Acquisitions Librarian*, no. 13/14 (Jan. 1995): 121–40, https://doi.org/10.1300/J101v07n13_09.
5. Susan M. Neumeister and Judith Hopkins, "Copy Cataloging in an Acquisitions Department," *The Acquisitions Librarian*, no. 12 (1994): 81–94, https://doi.org/10.1300/J101v06n12_09.
6. Andrea L. Stamm, "The End of an Era Builds New Team Spirit: Team Playing at Its Best," *Cataloging & Classification Quarterly* 30, no. 2/3 (2000): 357–72, https://doi.org/10.1300/J104v30n02_13.
7. Ann Branton and Tracy Englert, "Mandate for Change: Merging Acquisitions and Cataloging Functions Into a Single Workflow," *Library Collections, Acquisitions, & Technical Services* 26, no. 4 (2002): 345–54, <https://doi.org/10.1080/14649055.2002.10765871>.
8. Jacqueline Coats and Joseph Kiegel, "Automating the Nexus of Book Selection, Acquisitions, and Rapid Copy Cataloging," *Library Collections, Acquisitions, & Technical Services* 27, no. 1 (2003): 3344, <https://doi.org/10.1080/14649055.2003.10765894>.
9. Robert B. Freeborn and Rebecca L. Mugridge, "The Reorganization of Monographic Cataloging Processes at Penn State University Libraries," *Library Collections, Acquisitions, & Technical Services* 26, no. 1 (2002): 41, <https://doi.org/10.1080/14649055.2002.10765816>.

10. Peter Fletcher and Roxanne M. Peck, "Cataloging on Receipt for Monographs: Merging Cataloging and Acquisitions Functions at UCLA," *Cataloging & Classification Quarterly* 51, no. 1–3 (2013): 134, <https://doi.org/10.1080/01639374.2012.731679>.
11. *Ibid.*, 137–38.

CHAPTER 5

Developing New Collaborations Between Acquisitions and Cataloging at American University: Rapid Cataloging and More

Stacey Marien and Alayne Mundt

INTRODUCTION

In libraries, units within technical services do not necessarily work together. They may create their own silos and may not be involved with work other units are doing. At American University Library, the heads of these units (Acquisitions, Resource Description, and Electronic Resources) have worked hard to foster the idea that we are all part of one larger unit, working for the same cause—to provide the best access to the material for our users. In developing a checklist for rapid cataloging of monographs to be used by acquisitions staff, Acquisitions and Resource Description units at American University worked closely together. The success of this workflow led to subsequent collaborations. As a result, the Acquisitions and Resource Description units have become more interconnected and more efficient.

American University is a private, coeducational institution located in Washington, D.C., with an FTE (full-time equivalent) of approximately 12,000 students. The school is equally divided between undergraduate and graduate students. American University is well-known for its programs in American University Library has an annual materials budget of roughly six million dollars and approximately 1.3 million print and electronic resources. The library has about 90 full-time employees (including librarians with faculty status), with 18 full-time employees in Technical Services. Stacey Marien heads the Acquisitions Department and supervises 6 full-time employees,

while Alayne Mundt heads the Resource Description Department and supervises 5 full-time employees and 1 part-time cataloging assistant.

HISTORY OF COLLABORATION BETWEEN THE ACQUISITIONS AND CATALOGING DEPARTMENTS

Marien started at American University in September of 1999 and was hired as the business librarian. She worked in the Reference Department for 10 years before asking to move into Technical Services. There were some retirements in both Acquisitions and Cataloging, along with a new director of Technical Services. Marien was ready for a change and her request to move into Acquisitions was approved by the library director, and ultimately she became the acquisitions librarian in 2010.

Mundt started as the cataloging services coordinator in early 2009 and served as the interim head of Cataloging Services (now Resource Description) during this time. She was hired as the resource description librarian in late 2010.

Prior to Marien and Mundt coming into Technical Services, there was little coordinated interaction between the acquisitions and cataloging staff. Some of the staff in the two departments had informal professional interactions, but at the time the heads of the two units did not foster a collaborative relationship. If anyone in Cataloging had a problem, there was one staff member in Acquisitions who would be consulted. She had been there for many years and was the go-to person for institutional knowledge (and is still working in Acquisitions). Over the years, due to a combination of turnover and increased training and support, the quality of the work of the staff in Acquisitions and Resource Description has improved, and with new staff and new heads of the department, the unit heads made a more concerted effort to work together. Acquisitions staff had always downloaded preliminary records from OCLC for ordering but never did anything else that could be considered cataloging-related work.

The structure of cataloging before Mundt arrived was divided into two areas. The head of Cataloging oversaw original cataloging and copy cataloging of firms and media, while cataloging for approvals and workflows such as analyzed standing orders and adds was done

in the Database Management Department. Database Management also proofed the copy cataloging that was performed in Cataloging. Processing and repair work were housed under Database Management. All music cataloging was done by the music librarian.

Once the heads of Acquisitions, Cataloging, and Database Management retired, the whole Technical Services group was restructured over the course of a couple of years, while at the same time, the units were experiencing staff turnover. As part of this restructuring, Acquisitions took over print serials from the Serials and Electronic Resources Unit in addition to physical processing and repair. The functions of the Database Management and Cataloging departments merged, and the new unit was responsible for all parts of cataloging, including music.

Technical Services at American University Library is now comprised of three areas: Acquisitions, Resource Description (formerly Cataloging), and Electronic Resource Management (ERM). There is a director of Technical Services and librarians who are heads of each unit. With these personnel changes, along with the need for Resource Description to develop greater capacity for cataloging non-print formats and metadata work, the time was ripe for the units to start collaborating on projects. The first collaboration project involved rapid cataloging of shelf-ready approval books.

In 2009 the library decided to broaden its services with the book vendor Blackwell to provide us with shelf-ready processing for our approval plan books. Blackwell would attach the spine label, apply the bookplate and property stamp, add the security strip, and attach the barcode. At the same time, the library contracted with OCLC WorldCat cataloging partners to provide us with MARC records for these shelf-ready approval books. Once the books arrived in the library, the acquisitions receiving specialist received the books and confirmed that all the preprocessing was done. She then routed all the titles to Resource Description for the record to be reviewed.

Once the shelf-ready program was up and running, we discovered that shelf-ready and computer-selected MARC records did not mean books were consistently ready to be put on the shelf. The MARC record quality was variable, and the profile needed tweaking so that better records were selected. This improved many of the records that were selected by OCLC, but many still needed evaluation and

corrections or enhancements. All approval books were still being routed to Resource Description upon receipt. However, resource description staff did observe that many books coming in through this approval workflow had no problems with their records and could have been sent directly to Circulation to be shelved after the item record was created. At this point, the Acquisitions and Resource Description departments entered their first collaborative effort to streamline this workflow.

The main question we asked ourselves was: “If the receiving specialist is already receiving the approval book and checking to ensure that the shelf-ready processing is complete, could she also check whether the book’s bibliographic record is complete enough to bypass Resource Description?” We needed to make sure the receiving specialist had the time and training to ensure that the MARC records would be thoroughly checked and that it was done in such a way that resource description staff would feel comfortable with not examining every bibliographic record for newly acquired approvals books. We decided that Resource Description would develop a checklist to be used by the receiving specialist. If the book and record matched everything on the checklist, the barcode would be scanned to add the item to the record and the book would be routed to Circulation. If the book and record did not match even one item on the checklist, the book would be routed to Resource Description for review.

The checklist includes a physical check for processing and instructions for routing nonstandard books that include folios, multivolume sets, literature that needs reclassification according to local practices, and books that should be sent to our music library. The receiving specialist initially checks the encoding level (Evl) of the record so that books with full or minimal records are eligible to go through this checklist. The checklist also outlines basic matching checks of elements on the book and in the record, including the following:

- ISBN
- Existence of 035 in record with OCLC prefix
- Call number on the vendor-provided spine label matching the 050 and/or 090 in the bibliographic and holdings records
- Title statement
- Matching publisher information in the record and on the piece

- Matching dates in the 050 and/or 090, 260 or 264, and DtSt field in the 008
- Pagination

Over time, more complex elements have been added to the checklist, such as a check for the existence of variant titles (246) in records and more extensive instructions on how additional contributors such as illustrators and editors of a book can be reflected in a record. Issues such as duplicate table of contents fields (505), duplicate call number fields (050), and added uncontrolled entry fields (720) are considered too complex for a checklist. Records with these types of issues are routed to Resource Description for additional attention. Those interested can find the full checklist on the American University Digital Research Archive (AUDRA) web page at <https://doi.org/10.17606/M68081>.

In 2010, with Blackwell's bankruptcy, the Library decided to use Coutts (now ProQuest) as our primary book vendor. We wanted to continue shelf-ready processing approval books with them as well as the collaboration we had established between the two units.

Any books with errors or missing information in their records are routed to Resource Description for evaluation, correction, and enhancement by trained resource description specialists. In 2014, the receiving specialist who performs this approval book work was trained to check and compare encoding levels for the same record in OCLC and in our integrated library system (ILS). She was trained to import full-level OCLC records to overlay a lower encoding level version of the record in our Voyager system. She then applied the checklist to the newly imported record.

When we began this checklist workflow in 2009, it initially resulted in 24% of approvals bypassing Resource Description, but with additional refinements to the checklist and additional training of the receiving specialist who performs this check, we have increased this number by approximately 10% each year. These refinements have included the following:

- Elvl: M and 8 Level records can now be overlaid with better records if available
- 246: simplifying instructions for variant titles to evaluate

- 505: allowing books without table of contents to bypass
- 6xx: fiction books without subject headings can bypass cataloging

Currently, an average of around 74% of shelf-ready approvals bypass Resource Description. The receiving specialist's accuracy in checking these books is typically 96% to 97%, and Resource Description performs periodic spot-checking to ensure continued accuracy.

More recently, the same checklist and process have been applied to the Library's shelf-ready firm books by another acquisitions specialist, whose position was designed to be flexible and to include Resource Description and other divisional work as needed. This has resulted in an average of 63% of shelf-ready Firms bypassing Resource Description. For the 2016–2017 fiscal year, an average of 72% of all shelf-ready books bypassed the Resource Description unit. Overall, an average of 51% of books bypass Resource Description; this includes categories such as children's books, reference books, standing orders, books needing original cataloging or classification, and any other non-standard books that we do not receive as shelf-ready.

A copy of the checklist can be found on the AUDRA web page at <https://doi.org/10.17606/M68081>.

MOVE-TO-STORAGE PROJECTS

Since collaborating on the shelf-ready approval project, Resource Description and Acquisitions have worked together to improve workflows through the participation of Acquisitions in two long-term move-to-storage projects. The projects were to relocate low-use and outdated materials from the library's main stacks to a shared storage facility that is part of our consortium, WRLC (Washington Research Library Consortium). The purpose of these move-to-storage projects, which have relocated approximately 150,000 volumes, or roughly 15% of our main stacks, to off-site storage, was to make room for increased student study and programming space and to facilitate a renovation of the library. The start of the renovation in the summer of 2017 was dependent upon creating space in the library, so moving items needed

to happen at a rapid rate and was at times the number one priority of the Resource Description Department. As part of the move-to-storage process, staff confirmed that the cataloging record and barcode matched the item in hand, made corrections to bibliographic records and holdings statements, and examined materials for damage or mold.

In the first move-to-storage project that took place between June 2012 and May 2015, one acquisitions specialist contributed significantly to the project, accounting for nearly 35% of the total volumes relocated to storage over the course of one year. In addition to performing the database maintenance and cleanup aspects of this project, she also reviewed the performance of acquisitions student workers who were trained to work on this project during their downtime and served as a point person for answering student questions. Initially the acquisitions specialist only handled single volume monographs and titles. These were considered the easier part of the project's workflow. Over time, with additional cataloging training, she learned how to correct a broader range of errors in bibliographic records for both single volume and multivolume sets, in addition to how to add or correct holdings statements for multivolume sets and series. This allowed us to move significantly more titles to storage and gave Resource Description more leeway to focus on projects requiring higher-level cataloging knowledge and skills.

The second move-to-storage project took place from September 2016 to April 2017. Workflows had been created from the previous storage project and in addition, the processing specialist, who is a part of Acquisitions, provided resource description staff and student assistants training to identify which materials being moved to storage needed to be routed to her department for repair and relabeling. She also trained staff on how to identify mold so that these materials could be isolated and appropriately handled.

E-BOOK CATALOGING

Another way acquisitions and resource description staff have collaborated has been with e-book cataloging. Over the past five years, we have shifted to purchasing more e-books than print books. Acquisitions

is responsible for ordering all e-books that are one-time purchases, either as a single title or in a package. The ERM unit orders subscription e-book packages. Acquisitions has one dedicated staff member who handles the bulk of e-book ordering and importing records. Initially, he would send a list of titles to Resource Description for staff to review the records. That acquisitions staff member suggested that since he was already in the MARC record changing the URL field, why couldn't he just check the record to make sure it was correct? Thus was born another collaborative effort. Resource Description developed an appropriate checklist and several staff members in Acquisitions were trained to use it. This collaboration has resulted in the elimination of the backlog of e-books to be checked.

WRLC (WASHINGTON RESEARCH LIBRARY CONSORTIUM) RETENTION PROJECT

In 2014, eight of the nine WRLC libraries signed onto a shared collection print monograph retention agreement, wherein the participating libraries agreed to preserve and retain monographs that were held by 10 or fewer libraries in the United States. The participating libraries also committed to retaining two copies of each edition of a monograph held throughout the participating libraries. Location codes were assigned to books to alert staff on the nonpublic side to which books were retention copies (RET), duplicate copies (DUP), or preservation copies (PERM). These codes helped staff on the WRLC side to identify which books already had two copies at the shared collections facility and therefore could not be stored there. This project initially created enormous confusion for technical services staff in both Resource Description and Acquisitions regarding replacement and damaged books workflows. Over several years, the acquisitions staff had worked diligently to eliminate a backlog of titles that needed to be replaced due to loss or damage. Workflows were refined and tweaked until the whole replacement process went smoothly. Now that books were coded as part of the retention project and the library had an obligation to keep the title, the staff had many questions concerning the process for replacing a book that had one of these retention

codes. Prior to this project, books purchased as replacements were often a newer or different edition. Under the retention project, staff wanted to know what retention location should be assigned to the replacement when a collection manager preferred to replace a book with a different edition. Acquisitions and resource description staff met several times over many months to hash out how to handle the retention titles that needed to be replaced. Part of the problem was the decision for replacement was now taken out of the hands of the collection managers. No one seemed to have the answer regarding who had the final say to replace a book. Ultimately, the acquisitions and resource description staff worked out the procedure together and the other WRLC schools have used our workflows as a model.

REPORTING AND BATCH PROCESSING

The Acquisitions and Resource Description units also collaborate in the annual compilation of statistics that we report for ACRL (the Association of College and Research Libraries), IPEDS (Integrated Postsecondary Education Data System), and the Library's annual report. The resource description librarian and the acquisitions data management specialist each have an area of expertise. The acquisitions data management specialist has expertise in creating queries and running reports to pull statistical data out of the catalog, and the resource description librarian has expertise in bibliographic data and the structure of indexes in the Voyager database. They work together each year to run reports and compile statistics based on bibliographic data on criteria such as volume counts and the number of records in various formats.

Additionally, the resource description librarian and acquisitions staff, who perform batch edits and uploading of MARC records using MarcEdit, consult with one another as needed about tasks such as batch editing files of PDA (patron-driven acquisition) records, importing profiles, and correcting encoding of records. They work together to ensure that records meet basic cataloging standards and are consistent with other bibliographic records in the system. This has improved consistency and overall smoothness of record loads.

CONCLUSION

In May of 2017, the entire Technical Services Division was relocated out of the American University Library building to another building a half mile away from the main campus. This was done to create more student space in the main library. As of this writing, we are still resolving some workflow changes that have happened because of the move, but one significant upside is that all three departments within Technical Services are more integrated. Previously the three departments were physically separate, with Acquisitions and Resource Description separated by another department's work area, and with ERM on an entirely different floor of the library. Staff from the different departments are now seated closer together and are more comingled. This is presenting new opportunities for communication and collaborative efforts and has already created better cohesion among staff who work in different departments.

In 2018, American University Library will be migrating to a new ILS system, Alma by Ex Libris. The de-siloing of the Alma platform will not come as a shock to us, as our units have been working collaboratively within Voyager for several years. By working on so many collaborative projects, we feel we have enabled our staff to be more flexible. We are confident our staff will have a better sense of the big picture going into this migration because they are used to collaborating across their units.

It has been very useful for the Acquisitions unit to learn what the Resource Description unit looks for in a good record. This has provided us with a shared vocabulary and understanding. Staff from Resource Description have also been trained to work in the acquisitions module of Voyager. This has helped in the demystification process for everyone. Our staff members have also been eager to learn new skills to achieve a better understanding of what work is done in each unit, and how something Acquisitions does may impact the work in Resource Description and vice versa. One positive outcome with all the collaboration has been an increased understanding and respect for the work of others across units.

CHAPTER 6

Case Study of the University of New Mexico's Integration of Workflows in WMS

Laura Kohl, Chris R. Johnson, and Sever Bordeianu

INTRODUCTION

Twentieth-century technical services at the University of New Mexico Libraries were divided, reflecting the general organizational structure of academic libraries of the time. The traditional mind-set created clear separation lines between the Acquisitions, Cataloging, and Maintenance departments, which were further separated into more specialized areas. Acquisitions was specialized along the lines of monographs versus serials and had separate sections for acquiring study materials in different disciplines. In Cataloging, original cataloging was separate from copy cataloging, and serials usually were a separate section. Authority control was also separate, and the responsibilities were restricted to highly trained authority control specialists. Maintenance was yet another unit, where a multitude of functions took place such as labeling, transferring, and withdrawing. Circulation was not typically a unit of Technical Services and was based in Public Services. While dealing with bibliographic and item records, the focus in Circulation was on patron records, borrowing rules, and timelines. This tradition, well-entrenched in the profession for over a century, had led to the creation of elaborate rules and workflows, distributing the work along rigid trajectories which, if crossed, resulted in mistakes. Support technologies were developed along the same rigid lines with completely separate systems, first paper-based and later automated, for acquisitions, cataloging, maintenance, and circulation.

Book processing was, until the 1990s, a manual process, and its automation was always an afterthought of systems that barely met the procedural needs of technical services departments.

By the late 20th century, libraries had completely embraced automation by disposing of their card catalogs and other manual files. Still, the automated systems were designed along the same separate functional lines: acquisitions, cataloging, maintenance, and circulation, each with its own module specifically designed for the function it was meant to support. Integration with any of the other modules was either nonexistent or inadequate. The early automated systems that started to appear in the 1970s were actually individual modules designed to perform one singular function. If a library wanted to automate more than one function, it would have to install several of these modules, and any of the data that was shared had to be maintained separately, with each specialized area working with the same data. This was the golden age of large technical services departments with specialized staffs who performed their work according to strict rules that applied to their workflows and who were not conversant with the equally complex and strict rules of their neighbors. The large scale of these departments was due partly to the labor-intensive processes that were carried into the automated environment.

As in other areas of industry, automation began to change the traditional mind-set by making it possible to cross the lines between separate functions, and slowly and somewhat begrudgingly the profession began to see the work in a different light. Instead of sharp divisions, crossover areas began to develop, and opportunities to cross-train among these divisions became feasible. A bibliographic record would become the anchor for an acquisitions record and could later be used to circulate the book. As these integrated library systems (ILSs), as they would come to be called, became more powerful with improved functionality, it led to a continuous merging of the various activities. The truly revolutionary change finally occurred by the early 2010s, as ILS vendors developed new, more fully integrated systems from the ground up, within which the separations have all but disappeared. Another feature of these systems was that they were cloud-based, thus eliminating the need to purchase, maintain, and operate a local server.

BACKGROUND

At the University of New Mexico (UNM), librarians chose to embrace change, developing ways for staff to collaborate across departmental lines with the goal of using limited resources more effectively. After experiencing a data migration involving over four million bibliographic records from the old stand-alone system, Millennium, to that of OCLC's cloud-based platform, WorldShare Management Services (WMS), staff quickly learned to adapt to the ILS and the merging of roles. While the migration process was not an easy task, ultimately, cross-training and teamwork among the various departments helped UNM to build a stronger and more agile workforce.

UNM's University Libraries is a member of the Association of Research Libraries (ARL) and home to numerous unique collections, with many focusing on the American Southwest and Latin America. Currently, the Technical Services Department encompasses Acquisitions, Cataloging, and Electronic Resources. Staffing in each department varies, with Acquisitions maintaining a staff of six people, Cataloging a staff of four, and Electronic Resources a staff of two. As functions have been blended, Maintenance is no longer a separate section. The Cataloging Department maintains membership in both the Program for Cooperative Cataloging (PCC/BIBCO) and the Name Authority Cooperative (NACO). Membership in these national programs requires strict adherence to policies and guidelines, and training of staff to contribute records can be costly and labor-intensive. The specialized skills that need to be maintained by the catalogers to continue participation in these programs is creating differentiation among the staff. Since the 1970s, University Libraries has used OCLC for cataloging and card production, and by 1990 it had implemented Innovative Interface Inc.'s (III) Innopac for acquisitions. As library services became fully automated, UNM chose III as its first fully integrated online public catalog, naming it LIBROS. Over the years, various other academic and research libraries in New Mexico added their holdings to the catalog, eventually forming the LIBROS Consortium. At the time of this writing, there are 17 libraries in the Consortium.

THE STAND-ALONE ILS AND DEPARTMENTAL DIVISIONS

Two key drawbacks of stand-alone systems, which run on locally administered servers, are that they have a limited service life and a limited storage capacity. Servers must be upgraded periodically, and as more records are added to the catalog, memory requirements increase. Both of these factors entail costs. There were other associated issues related to upgrades that were disruptive. It was not uncommon for the system to be taken down for a week or more when a server upgrade occurred. In the cloud, this is a nonissue. A new model emerged that would solve many of the problems associated with locally run ILSs: Software as a Service (SaaS). SaaS allows libraries to shift costs from the purchase and maintenance of the local infrastructure to a hosted service based in the cloud, using an annual subscription. The ILS vendor hosts the server and the data and upgrades happen more or less seamlessly and with little downtime. The cloud-based process is considerably more cost-effective and labor-efficient compared to the upgrade processes of the old systems. UNM had last replaced its server in 2008 and there was a strong need for an upgrade. While data migration has its costs in terms of staff time needed to implement a new system and data cleanup, migration happens within a finite period of time and, once complete, there are no reoccurring costs. In the long term, the cost of the upgraded system would end up being less than the combined costs of upgrading and maintaining a local server, both in computer costs and the staff to run it.

Stand-alone ILSs are separate from the bibliographic utilities, which is where the bibliographic records originate. Most libraries use OCLC as their cataloging utility, but there are others such as Sky River. Once found, a suitable bibliographic record is downloaded into the local system, where the customization occurs. Running a stand-alone system on a local server requires a specialized systems department with its own expert staff. Typically, these departments support the entire range of technology for the library in addition to the online catalog and, as such, they have their own procedures and priorities. In general, systems departments deliver services based on their departmental priorities, rather than the priorities and needs of technical services. In 2014, when UNM decided to abandon its stand-alone

ILS in favor of the new fully integrated WMS system, it would upend most of the old methods. After the migration, the UNM Libraries' IT department no longer needed to staff two and a half full-time positions dedicated specifically to running the ILS server. The unique situation of WMS running directly in OCLC's WorldCat native database also eliminated the need for a separate full-time authority control team, which at one time consisted of two full-time positions, one faculty and one staff, as well as a half-time student position. At the time of migration, authority control still had two half-time staff dedicated specifically to authority control, one cataloger and the other from Systems, even though the Libraries had outsourced the service to MARCIVE. In WMS, the Libraries uses OCLC's master records, and authority control is performed using the NACO file.

CLOUD ENVIRONMENT

As the landscape of the computing environment changed in the late 2010s, ILS vendors began to roll out powerful systems with capabilities designed to function in the cloud. Since libraries no longer had to run their systems on stand-alone platforms, the need for local server maintenance suddenly disappeared. The new environment also made it possible to dissolve the barriers that separated the different functions within technical services departments. This new approach would drastically alter the workflow and make possible a new level of collaboration among various areas of the library. In the cloud, staff have a new flexibility enabling them to work remotely. This environment was also designed to remove the artificial separation of tasks based on function. In the particular case of WMS, the separation between the bibliographic database and the local catalog disappeared.

OLD WORKFLOW VERSUS NEW WORKFLOW

As previously noted, workflows at UNM were very compartmentalized and inefficient. Each function within the Libraries was completely distinct, and it was not possible to easily cross the divisions. Many

separate elements had to be communicated via fairly narrow channels. Cataloging used the cataloging utility, OCLC, and exported bibliographic and authority records into the local ILS. The functions of Acquisitions, Cataloging, and Circulation were completely separate. Each department was part of a different chain of command: Acquisitions reported to Collection Development, Cataloging and Maintenance to Technical Services, and Circulation to Public Services. The only commonality was the bibliographic record, which originated in OCLC. Attached to the bibliographic record were order records, which were the property of the Acquisitions Department, and the circulation records, which were the property of the Circulation Department. Permission and access to edit and maintain those records was assigned according to the employee's department, and there was no cross-functionality or expertise in other departments' workflows. Only department heads had the authority to access records belonging to another section. While this situation created a very controlled environment, it was not conducive to seamless workflows. In addition, authority control, which was the purview of the Cataloging Department, was further separated from the rest of cataloging, with very restricted permissions. Each section had its own procedures, benchmarks, turnaround times, and priorities. Sections did not consult with other sections when they developed policies. Expertise in each section was specialized, and most people were not conversant with the work of their colleagues in other sections. Cross-training was limited to individual tasks. In this environment, shared knowledge was neither needed nor particularly encouraged. Overall, people did not see much use for it.

In the new age of technical services, functions are connected, and the divisions are more artificial. While the functions are still distinct, Acquisitions will order a book and create a temporary record (of sorts), the book gets cataloged and processed (by a cataloger or an acquisitions staff person) before it is available for circulation. There is now a continuum of activities that allow cataloging to take place at a much earlier stage than before. The workflow is also streamlined, as most functions (except for original cataloging and upgrading of master bibliographic records) can happen in any module: acquisitions, circulation, or cataloging. Cataloging no longer needs to take place exclusively in the cataloging module, called "record manager"

in WMS, but can be equally performed in the other modules. This was a strong departure from the old system in which only records that were imported from the cataloging module were fully cataloged. All the other modules created temporary records and catalogers were the only staff with the authorization to bring in or overlay fully cataloged records.

CROSS-TRAINING

At the time of migration, the ILS vendor emphasized the need to prepare staff for a major change in workflows and a drastic change in work assignments. The new environment requires each staff person to have a holistic understanding of all the operations performed in the department. The functions are no longer separated by the various workflows, and the modules in the ILS communicate easily with one another. The organizational legacy presented the biggest challenge in adapting to the new system because of previous departmental divisions and reporting lines. While the new system would make some old positions obsolete, it was not possible to reassign employees that had been hired under the old structure. Accommodations were made in order to best suit the needs of the staff with the needs of the department. This entailed modeling the workflow to the employee's skills and responsibilities. This situation allowed, indeed forced, the Libraries to rethink workflows, eliminate obsolete procedures, and truly modernize the operation. For example, Libraries eliminated a large file of temporary records containing notes pertaining to local treatment. This file had been maintained in the old ILS. Libraries also stopped claiming periodical issues since the new system was not designed to accommodate this functionality and the number of claims had diminished to the point that this operation was becoming less relevant in the age of electronic resources. The most important and time-saving operation was the elimination of the authority control section and all the related costs. Libraries also stopped marking copy numbers on books and relying solely on the barcode to differentiate between copies. All these changes required open communication and extensive discussions with and feedback from all staff involved. It also provided the Libraries with a unique and unprecedented opportunity

to create a fully integrated set of procedures to process library items from purchasing to shelving, and at the same time get staff excited about the transformation. In the beginning, meetings between the various sections were frequent, two to three or more per week. As workflows were developed the need for meetings diminished, but the lines of communication between the sections remained open.

For Acquisitions and Cataloging to collaborate, it required the two sections to become proficient in the skills of the other. It also necessitated a shared fluency in the new terminologies of WMS, an area that caused the most strife immediately after migration. For staff to become accustomed to the new terms and processes, department managers first conducted in-house training to teach the basic structure and usages of the new system. Much to the distress of the cataloging staff, the physical receiving and processing of new material became a streamlined activity that was performed within the acquisitions module of WMS. Receiving would replace not only the term for cataloging but also the act of cataloging itself. The art of cataloging, as it was always known, could now be done by acquisitions staff. Even more troubling, WMS contains no cataloging module, instead grouping many of the functions and abilities usually given to catalogers into one module called “metadata.” The metadata module provides the option of viewing and editing a MARC record, but the word “cataloging” cannot be found anywhere in the WMS system. In truth, the new reality caused many employees on the brink of retiring to do so, and it certainly caused others to consider retiring when they could. After the dust settled, those staff that were left in both departments were individuals who would adapt and adjust to the new environment.

The WMS receiving function is strongly oriented toward copy cataloging. When an order is placed, it is attached to a master record in WorldCat, making the item ready to receive. When the piece arrives in the Libraries, opening the order record and adding a barcode in the correct field makes the piece cataloged. Acquisitions staff were trained to look for an acceptable bibliographic record within WMS to receive the book. Conversely, catalogers had to learn the environment in which Acquisitions operates. They learned to find the order record so that the item could be received in the system. In WMS, the acquisitions and cataloging tasks are intertwined, and any mistakes

made by either will be ultimately reflected to the user of the catalog. Much of the learning in this instance was cultural. Catalogers are used to finding the appropriate bibliographic record to match the piece in hand. Acquisitions staff are adept at ordering materials based on a brief title or a vague description. Often, the bibliographic record selected at the time of ordering is inadequate for the catalog, and a new bibliographic record has to be chosen. In the stand-alone system this situation was easy to fix because catalogers could simply overlay the bibliographic record used for ordering with a better bibliographic record from WorldCat. The situation is different in WMS because we are operating directly within the WorldCat database, eliminating the ability to overlay records. If the record selected by Acquisitions was incorrect or if a better record is available, catalogers change the bibliographic record to which the order and item record are attached at the time of receiving. If the record chosen at the time of ordering is sufficient, the cataloger needs only to assign the barcode for the task to be complete. While the complexity of the system does make sense, it took a while for people to internalize it.

An additional concern was the necessity for catalogers to maintain their membership within Program for Cooperative Cataloging (PCC), which demands of its member institutions expert knowledge and a high level of accuracy in creating authority records and full-level bibliographic records. As a point of pride, this work is still performed by trained catalogers. At the time of this writing, the work must also be done in OCLC Connexion. A record cannot be coded as PCC if it lacks authority control, and the creation of authority records is not possible within WMS. Therefore, all PCC level work must be performed within OCLC Connexion.

IN-HOUSE TRAINING AND LIVE WEBINARS

In-house training sessions were the first method employed to build a strong team of cataloging and acquisitions staff that would act together to design and perform the new workflows. After identifying the new terminology and the different capabilities of the metadata, acquisitions, and circulation modules within WMS, the entire department

attended live webinars, hosted by OCLC trainers, from the comfort of the Libraries' computer lab. The training sessions walked staff through various exercises that mimicked the operations they would be performing within the new system. Libraries staff performed these functions by logging into a test site hosted by WMS that allowed the staff to search for records, place orders, add holdings and local notes, and practice deleting item records without having to do so in the live instance of the library catalog. Both departments attended these webinars together until they became proficient in the tasks they would perform. Training for the new system began in January 2014 and lasted well into the migration, which took place that summer. Overall, staff logged more than 200 hours of webinars, training sessions, and meetings to prepare for the implementation. While not all staff members were required to attend trainings outside of their immediate area at the time, all 20 or so department members participated intensively.

OUTSIDE TRAINING

An added benefit of operating in a combined environment was the opportunity for formal training. All department members, with full support and funding from Libraries' administration, took a series of web-based cataloging courses offered by the Midwest Collaborative for Library Services (MCLS) and the Association for Library Collections and Technical Services (ALCTS), which greatly enhanced the professional expertise in the department. Acquisitions staff had the opportunity to learn the intricacies of the MARC record, subject headings, and Library of Congress (LC) call number schedules and the importance of authority control. Each staff person took a minimum of nine three-day courses offered over a period of several months, which enabled 10 people to receive basic and advanced certificates from MCLS. Two ALCTS webinars on resources description and access (RDA) were also part of this training. The coursework, which was supported financially by the Libraries' administration, prepared acquisitions staff to work within an environment in which they would be copy cataloging. Training in acquisitions was done in-house and conducted by the managers, with staff learning the ordering, receiving, and selection process of the system.

The combined department and the shared workflows created these training opportunities for all staff, which would not have been justifiable previously. The level of expertise throughout the Libraries' Technical Services Department increased noticeably after the course-work was completed. Staff gained a holistic picture of all the functions performed in the department and an increased awareness of the roles and contributions of their colleagues. This type of shared knowledge is especially useful when there are sudden surges in orders and receipts, during special projects, and when vacancies occur.

NEW ROLES AND WORKFLOWS

Transitions from one system to another offer opportunities for libraries and for staff development. One such opportunity is presented by a new system's architecture and capabilities. There is seldom an exact, one-to-one correlation of each individual function between the old system and the new. University Libraries staff had to embrace a new world in which the Libraries' holdings were no longer closed within a limited system but had become part of the larger bibliographic universe that is WorldCat. In a few instances some cherished functions disappeared. For example, the Libraries would no longer be able to mask records from public view, which left some staff feeling unsettled; copy numbers were no longer marked; and claiming of periodical issues would no longer be performed. Most upsetting for staff was the loss of control over the local record because everything in WMS is based on the master bibliographic record. Manipulation of bibliographic data for local use was a staple in Millennium but is now severely limited within WMS. These changes, though they were not drastic, took time for staff to adjust to, but after several weeks working in the new system they were accepted. For management, there was a great opportunity to completely review all existing workflows and to identify stale and unnecessary routines that had been continued over the years out of habit or inertia, but which were no longer necessary. In other words, it was an opportunity to modernize a function and bring it in step with other modern systems the Libraries was using, such as material and electronic resources vendor systems.

OBSTACLES

Human resistance was a larger obstacle because staff were reluctant to give up long-held and comfortable routines for an uncertain new world. Learning a new system is intimidating, and many found it difficult to leave the comfort of old routines behind for the uncertainty of the new. Librarians were well-versed in interlibrary loan (ILL) practices, and sometimes it took time to understand that WMS performed functions differently and referred to them with different terminology. One case in point was local notes. In the stand-alone system, after downloading a record, catalogers could add notes in the bibliographic record that only users of the Libraries' catalog could see. In WMS, a library works with the master bibliographic record, which, once altered, affects all other libraries using that record; it is therefore more cumbersome to make local notes in the bibliographic record. And the ability to add local notes is limited. Local data is no longer saved within the bibliographic record—rather, it is recorded within the item record. This function is exclusively performed by catalogers with the proper training. After a failed attempt to adapt old routines to the new system, most of those routines were discarded. Over time, University Libraries staff adapted and worked with an attitude of looking to the future, resulting in a dynamic, resilient staff capable of performing the functions within all of the modules in WMS.

SOLUTIONS

The obvious solution to all these problems was a lot of hard work, a lot of training, and a lot of motivation and support. In fact, the vendor recommended the use of an outside consultant to redesign the workflows. UNM chose not to use an outside consultant. Training in the new system began as soon as the decision to migrate was made. The test site provided great learning opportunities, and staff from all sections participated from the start in developing the new workflows. The ground rules were set: change was going to happen, and staff had to have a positive attitude and look at solutions rather than go in search of problems. Most took advantage of this exciting opportunity and participated fully. In the end, people worked with dedication

to implement the new system, completely revised the workflows and procedures, and made the transition a success.

CONCLUSION

Shortly after migration, when it was obvious to everyone that the transition to the new ILS had been successful, the attitude toward the new system was very positive and soon the workflows became quite natural. Many old routines are no longer practiced and efficiency is high. Proof of this is in the numbers. Despite several staff retirements, and with the workload staying at the same level as before the migration, there are no backlogs in ordering, invoicing, receiving, or cataloging in the department. This in itself is probably the best indicator that the migration created an environment in which University Libraries was able to establish an efficient and practical workflow.

The migration allowed for a complete revision of all technical services workflows and the opportunity to modernize them. The new ILS is much less compartmentalized than the old, which means staff in many areas can perform functions they were not authorized to perform in the old system. This new way of working in technical services necessitates more training and more extensive procedures, but it also brings the various library units in closer contact and collaboration. Ultimately, what really allowed the entire process to be successful was a very cohesive workforce and a willingness to change. There is no doubt that it is much more satisfying to work in this new technical services environment, where there is less division between Acquisitions, Cataloging, and Systems Maintenance.

CHAPTER 7

The Times They Are A-Changin': Workflow Collaboration in the Information Age

Lisa Kallman Hopkins

With the proliferation of next-generation automated library platforms, such as Innovative's Sierra, OCLC's WorldShare Management System, and Ex Libris Alma, the clear demarcation between the acquisitions and cataloging duties in most library technical service departments has faded, making broader collaboration not only advisable, but all but required. Entire library workflows have undergone radical restructuring as a result of the new library system designs, which often results in acquisitions staff doing—or at least sharing—the work that catalogers and copy catalogers previously completed. In some libraries, in fact, the divergent roles that once defined the two major divisions in technical services have completely merged.

These changes have transpired rapidly. Looking back to the fairly recent past, when I first started working in my college library as a student worker in 1985, I worked in the cataloging department creating catalog cards for new materials using a programmable typewriter, 3 × 5 index cards, and extensive use of the *National Union Catalog*. I did not even *know* the acquisitions librarian. My territory was bounded by cherry-stained wooden card catalogs, rows of *NUCs*, and shelves of books to catalog. I was not concerned with how those books arrived or from where they came—nor did I need to be. My job was solely to catalog and there was no overlap with acquisitions.

Thirty years ago, staff roles in libraries were clear—at least in larger libraries. Physical materials were selected, ordered, received, cataloged, processed, and shelved by separate departments, mostly

independent of each other. By the time I received my MLS 20 years later in 2006, the integrated library system (ILS) was almost universally adopted, especially in academic libraries. Most ILSs featured discrete modules that reflected and preserved the traditional division of duties, and personnel worked within distinct client modules, such as systems administration, acquisitions, cataloging, serials, circulation, e-resources management, and the online public access catalog (OPAC).¹ Now, just over 10 years later, rapid changes in technology and a tremendous demand for versatility in handling increasingly digital information have caused libraries to reexamine their entire organizational structure and workflows.

RADICAL CHANGES IN TRADITIONAL TECHNICAL SERVICES DIVISIONS

Technical services departments have traditionally been charged with acquiring, describing, and making resources ready for patrons. Within most technical services departments, the two main divisions of duties have been acquisitions and cataloging. Acquisitions procured items, cataloging organized and prepared them for inclusion in the collections. Selection and collection development, serials management, gifts, interlibrary loan (ILL), and other subunits may fall within the acquisitions division. The cataloging division may also house bindery/repair, both original and copy cataloging, and physical processing. These two “back-room” divisions in the library “provide the basic material upon which a library’s service program is built.”² Essentially, without the acquisitions departments, the library shelves would be bare, and without the cataloging departments, the shelves may as well be bare. Acquisitions populated the library with material, while cataloging allowed library users to find and identify the material they needed.

A significant portion of the acquisition unit’s daily work was spent in the preorder tasks of bibliographic verification, or establishing the existence and quality of a particular item, and identifying a supplier for each. Acquisitions staff were spending a considerable amount of time consulting *Books in Print*, *The Serials Directory*, and *AV Market Place*.³ Once the existence of the item was established and

details verified, most physical items were ordered directly from the publisher, from a wholesaler or book jobber, or—since 1994—from Amazon. The very fact that the library resources were predominantly physical and were ordered from somewhere else meant that there could be a considerable delay between the time an item was ordered and the time it was received. Additionally, it was usually not until the item actually arrived that staff could apply adequate description. Legacy library systems were designed to accommodate this separation of duties, as well as the inherent time lag between them.

As we approach the end of the second decade of this new millennium, in addition to physical materials, libraries must collect and make accessible information that has no tangible presence and cannot sit on any shelf. In our new web-based world, information is complex and available in every conceivable format. It is increasingly digital, wholly integrated into our lives, and ubiquitous. It is no wonder that the library has undergone radical changes as it endeavors to keep up with the transformation in the way that information is created and becomes accessible to knowledge consumers. The prevalence and expectation of streaming media, e-books and e-journals, and unrestricted Internet-based information has resulted in and allowed for the dissolution of many divisions in the library and has altered the way the library itself is structured. The divisions within technical services have collapsed. Such departments bear little resemblance to those described in my 2002 technical services manual. The lack of compartmentalization and loss of boundaries in the flow of information and the many formats in which it is available have necessitated the transformation from discrete departments to largely integrated workflows within the library.

CONSOLIDATION IN THE INFORMATION INDUSTRY

Libraries certainly aren't the only entities undergoing tremendous transformation. Publishing companies are merging, a trend that may also be shrinking the diversity of ideas and products. And the giants in the industry that serve libraries are consolidating and converging in surprising ways. For example, companies that originally specialized in the sale of e-books and e-journals are merging with companies that

once sold physical items and, having absorbed those companies, are further merging with or investing in companies that produce ILSs. Marshall Breeding calls this “horizontal and vertical consolidation.” Horizontal consolidation is the merging of competing companies with similar business activities, while vertical consolidation is the merging of companies with diverse products and business strategies that provide opportunities to expand their technological and market reach.⁴

An example of both vertical and horizontal consolidation is ProQuest, a company that provides electronic scholarly content—such as primary source material, e-books, access to dissertations and theses, scholarly journals, and historical and current newspapers⁵—teaming up with Ex Libris, a company that creates ILSs, and then acquiring a wholesale academic bookseller, Coutts. Another example is EBSCO, a competing company that created a discovery layer designed to index and search across entire library collections.⁶ In addition to providing databases, e-books, and e-journals, EBSCO has been investing heavily in open source library services platforms like the new FOLIO initiative, which will be discussed below. OCLC, a global library cooperative celebrated for providing a space for shared cataloging, expanded its reach and enhanced its product by developing its own “integrated suite of cloud-based library management applications.”⁷ A profoundly consequential culmination of this robust horizontal and vertical consolidation is something Breeding coined the library services platform (LSP), which describes the new next-generation ILSs that are smashing through the traditional library workflows.⁸ These new models were designed to reconcile the library’s complex collections, comprised of increasingly electronic content, and the changing modes of acquiring materials with an emphasis on access over ownership.

LSPs are designed to “seamlessly handle both print and digital content using ‘unified resource management.’”⁹ Rather than focusing on separate and distinct modules installed on desktops, they support numerous interchangeable workflows, which allow for tremendous flexibility. In fact, many of the new LSPs are cloud-based, eliminating the need to deal with servers or install software on designated desktops. This too allows for tremendous flexibility in where and how work is being done. Both the design and the functionality of the next-generation ILS emphasize modularity and extensibility,¹⁰ bringing together functions that were once distinct within the library and preparing for further innovations in the future.

These platforms are being designed to accommodate and promote collaboration within library departments, as well as between libraries. LSPs are being created as a reflection and expression of library consortia, of the collaboration between and merging of departments, and of the collaboration between the library and the publishing industry. They are an acknowledgment of and solution for the ways in which the acquisition, cataloging, and discoverability of information have changed.

TRANSITIONS IN WORKFLOWS

To illustrate the ways the next-generation ILSs have impacted workflows within technical services—and in particular the division between the acquisitions and cataloging divisions—let's look at three academic libraries as they transition from their legacy system to an LSP.

OCLC's WorldShare Management Systems

My first position post-MLS was in the library of a small liberal arts school in Texas. The library had just migrated from Dynix to Ex Libris Voyager. Technical services consisted of two departments: Collection Development and Acquisitions, and Cataloging. The head of Collection Development and Acquisitions supervised two acquisitions clerks. The head of Cataloging supervised a cataloging librarian, a copy cataloger, and a technical services clerk. The head of Systems oversaw an independent department, as did the head of Serials, who also managed the electronic databases and supervised two serials clerks. Interestingly, the clerk in charge of ILL reported to the head of Reference, and there was no coordination between the ILL clerk and Acquisitions on possible purchases to fill requests. As a cataloger, my work was done primarily within the Voyager cataloging module. However, I requested access to the circulation module so I could track holds and requests. I was not given access to the acquisitions module. The acquisitions clerk was given a list of books to order, and she chose a temporary bibliographic (bib) record from OCLC as a placeholder in Voyager. I cataloged all print and media materials in OCLC's Connexion after they were received, often replacing the record previously chosen by acquisitions staff. There was limited communication between the Acquisitions and Cataloging departments. The cataloging librarian

cataloged serials and continuing resources. The head of Cataloging did most of the original cataloging, all of the special collections cataloging, and all of the e-book cataloging, in addition to importing authority records into the system. The library purchased very few e-books and did not hold any e-book subscription packages. Records for purchased e-books were imported into Voyager after being edited using the MarcEdit utility, and holdings were manually set in OCLC. Notably, even within the Cataloging subunit, cataloging tasks were divided among discrete workers with little access to each other's work.

The library migrated to OCLC's WorldShare Management Services (WMS) in 2013, and at that time the organizational structure of the library was turned on its head. A devastating budget cut to the library was the driving factor behind the choice of WMS as it was anticipated that there would be tremendous cost savings both in the price of the system itself and also through a reorganization and reduction of personnel. It was anticipated that the capabilities of this new system would allow the library to combine duties and eliminate staff redundancy. Technical Services was renamed the Library Resources department. The prior head of Serials became head of the department, with the previous head of Cataloging—now the cataloging and metadata librarian—reporting to her. The department head retained her previous duties of serials and e-resources but added systems management and collection development. However, the duties of the cataloging and metadata librarian were transformed. There is now no need to import authority records into the system, as authority control is built into WMS. In addition, the capabilities of WMS substantially changed e-book cataloging. It is no longer necessary to customize URLs or edit e-book records using MarcEdit, as the department head can simply “turn on” the library's holdings of e-books. Purchased e-books appear through the discovery layer of WMS, alongside the new demand-driven acquisition (DDA) collections that have been activated. The department head is able to increase the depth and breadth of the collection by simply checking a box and turning on an entire EBSCO subject collection in the discovery layer. Not only are the cost savings in terms of time profound, but the library is able to provide access to thousands of books for a fraction of the cost. Library users are blissfully unaware of whether the e-book to which they have access was already owned by the library or was just purchased, triggered through their use.

The cataloging and metadata librarian, freed from e-book cataloging and authority work duties, now completes all of the original and copy cataloging and has been able to take on the additional task of managing the institutional repository. In addition, many of the special collections items that were never cataloged are finally being unearthed and cataloged. The second cataloging librarian was moved out of technical services and into public services. The copy cataloging position was eliminated. With a drastically reduced collection budget, very few books are being purchased, reducing the copy cataloging workload. In addition, the streamlined workflow made possible by WMS enables the acquisitions team and the cataloging and metadata librarian to take care of all the cataloging without the need for a copy cataloger. The ILL clerk position was moved into technical services and works directly with the single acquisitions clerk. The library leverages WorldCat and an ILLiad add-on layer to serve as a DDA for print that allows university community members to request that a book be purchased or borrowed. When a patron request comes in, the ILL and acquisitions clerks work together to determine whether to borrow or purchase the material to fill the request. The acquisitions clerk selects the bib record directly in the platform and adds the library's holding to OCLC after she orders physical materials that patrons have discovered through WMS and requested. When the item is received, she affixes a barcode, which allows the cataloger to identify the selected record. The cataloger adds a unique call number and sends it over for physical processing. In other words, the technical services department was radically streamlined and consolidated. The department was downsized by half, going from 11 workers to 6. This downsizing and redistribution of duties would not have been possible—or it would have been much more difficult—if the library had not migrated to WMS.

Innovative's Sierra

When my current library was with Evergreen, collection development, acquisitions, and cataloging were all done by separate departments. With the anticipated migration to Innovative's Sierra, however, I was hired as the cataloging and acquisitions librarian. It is notable that my title combined two roles that traditionally defined the two major divisions within technical services. When I joined the department, there was a head of Technical Services, whose primary roles were systems (especially managing the migration from Evergreen to Sierra),

managing the e-resources, including the link resolver, and cataloging print materials. There was also a part-time original cataloger and a full-time copy cataloger. My primary job was acquisitions of print materials, and acquisitions and cataloging of e-resources. Despite the fact that this umbrella position was created anticipating a consolidation of workflows in the new platform, there remained redundancy in duties once we began operating within the Sierra system. Sierra employs “roles-based desktop staff applications” designed to support the changing workflows in libraries and to eliminate the need to switch between modules when switching between material formats or tasks.¹¹ The workflow can easily switch between print and e-resources; between ordering, receiving, and cataloging; and between circulation, serials, and electronic resource management (ERM). In this new platform, one individual can easily order, receive, and catalog print and e-resources. The new integrated workflow increased productivity to such an extent that a part-time cataloger was no longer needed. That position was eliminated and a much-needed archivist was hired. Having been trained as a cataloger, the acquisitions and cataloging librarian is able to select and import the best records from OCLC into Sierra at the time she orders books. She is able to include internal messages on the order record with special instructions for the copy cataloger—for example, she might suggest a call number or an added note field or subject heading. She will also indicate whether the text is a course reserve purchase or a rush order for a patron, and the copy cataloger ensures that the book is routed to the proper place. With so much of the actual cataloging done at the time of ordering, the copy cataloger took over course reserves management, a task previously managed by the circulation staff. This change not only allowed public-facing staff more time to work with patrons, but it has resulted in a more efficient path for course reserve texts. Previously, a book ordered as a textbook or course reserve traveled back and forth between the technical services office and the circulation desk, which are on separate floors. Now, the book is immediately entered into the course reserve module in Sierra and processed with the appropriate reserve stickers.

As the current head of Technical Services, my time is entirely devoted to supervisory tasks, systems, e-resources, and the link resolver. Unlike my predecessor, who cataloged physical material, I

catalog all of our e-resources. Our library has chosen to import records into the catalog for all subscription e-books and streaming media, in addition to purchased e-books. This decision was made, in part, because our discovery layer could not display all of our e-books. We subscribe to both ProQuest's Ebook Central Academic Complete and EBSCO Academic Collection. The discovery layer in Sierra is Encore. It is an EBSCO Discovery System (EDS) product and does not support ProQuest's Ebook Central. As a result, our ProQuest e-books were invisible in our discovery layer. With records in our catalog, all of our e-books, regardless of vendor, are discoverable in one place. To provide records in the catalog, I edit batches of MARC records using MarcEdit and import them directly into Sierra. When I receive notice that titles have been removed from the collection, I delete the records. Sierra makes it easy to import batches and delete them through the data exchange module so that cataloging 10,000 e-books literally takes minutes.

From Sierra's Administration Application, workflows can be created for every staff person authorized to work within the Sierra platform—in fact, multiple workflows can be created for each staff member. The acquisitions and cataloging librarian has several workflows to enable her to handle multiple complex tasks, while the copy cataloger has fewer, to accommodate her simpler tasks. This ability to create workflows across the application and to create the workflows that fit unique needs has allowed us to increase productivity and efficiency. With the application's versatility, we are also able to step into each other's duties easily without having to load extra modules onto our computers or physically move to different work stations. I have insisted on cross-training everyone in the department so that we are all familiar with each other's duties. The acquisitions and cataloging librarian can easily receive items, manage the course reserve system, and import e-books. The copy cataloger can also receive items when the part-time acquisitions specialist is unavailable. As mentioned above, this efficiency has had a positive impact on other areas of the library, allowing us to take on additional tasks previously held by circulation staff. At the same time, Circulation is helping with tasks once performed by technical services staff. Circulation staff now process newspapers and journals at the circulation desk. They use the Sierra serials function and fill in the electronic "card" to update our holdings.

They manage the claims right from their service desk, which is directly adjacent to the journal collection in the library.

Ex Libris Alma

Another small liberal arts college in Texas recently migrated from Innovative's Millennium, a traditional ILS, to Ex Libris's next-generation Alma. A former colleague of mine was hired as the acquisitions and metadata librarian there while the library was with Millennium, preparing to transition to Alma. She shared her experience with me about the migration to Alma, as well as the changes her library has undergone since then. Within months of bringing the new system online, the library reorganized its staff. The old workflow under Millennium followed somewhat traditional roles. The collection development librarian selected materials and provided the acquisitions and metadata librarian with a list of the materials to be ordered. The acquisitions and metadata librarian ordered the materials from a vendor (Midwest Library System or Amazon), selected a bibliographic record from OCLC, uploaded the record into Millennium, attached the order record and item record, and assigned the Library of Congress (LC) Classification call number. When the book arrived, a technical services specialist received and processed the book. Even under Millennium, the traditional separation between cataloging and acquisitions had collapsed into the consolidated role of the acquisitions and metadata librarian. With the adoption of Alma, the boundaries between roles collapsed even further. The staff quickly realized that the positions of collection development librarian and acquisitions and metadata librarian were redundant. They consolidated the work, and the collection development librarian began not only selecting material but also ordering and then cataloging print material immediately in Alma. The technical services specialist still receives the item, assigns barcodes, and finishes processing material. The work was further consolidated when ProQuest purchased Ex Libris and Coutts. The book ordering platform for Coutts, Oasis, is now embedded in Ex Libris Alma, and books can be chosen and ordered through electronic data interchange (EDI) without ever leaving the platform. It is also possible to search Amazon from within Alma and to create a PO, bib record, and order record without having to leave the platform.¹² Alma eliminates the modular thinking altogether.

Alma is a cloud-based LSP with tasks that are completely customizable and integrated.¹³ It is also untethered to any one desktop or location. My colleague is able to pull up her Alma interface, configured as she designed it, from anywhere that she has Internet access, allowing her freedom to move around the library, use her desktop or mobile device, or even work from home or while out of town at a conference. The interface itself is customizable, with boxes and widgets. Alma serves as an example of how new LSPs can support traditional task divisions, while at the same time making them unnecessary. Its strength, like that of Sierra, is that it can be configured to meet the needs of almost any arrangement of workflow and staffing. The extreme versatility of the platform makes it possible for technical services duties to be more fluid, for tasks and duties to be realigned or reassigned such that they enhance the strengths and competencies of each staff member. The resulting increase in productivity and efficiency allows technical services staff to spend their energy and resources elsewhere. In this case, my colleague is focusing her considerable talent on the user experience, discovering ways to more effectively connect students with the information they seek.

RADICAL CHANGES COMING

The rapid transformation of library technology has had a revolutionary impact on technical services departments over the last decade. This has ultimately resulted in more productive and streamlined workflows and has enabled a greater efficiency in ensuring that information finds its way into patrons' hands. Collaboration between divisions is made easy by systems that are designed to provide seamless workflows, and the merging of once disparate duties is becoming commonplace. Technical services librarians must recognize that the future of LSPs will require them to expand their repertoire of skills and learn how to manage a process that is integrated along the chain from request to shelving. Technical services managers must invest in cross-training their staff. The emphasis needs to move from duties and tasks to workflow patterns that fit ever-changing library material. Technology is being developed that anticipates the development of technology we have yet to imagine. Marshall Breeding has recently

described an open source library services platform with a completely unique technology architecture. This platform is currently being developed by the Open Library Foundation, led by EBSCO in collaboration with several universities. The new library system, FOLIO, “embraces a highly modular approach in which specialized apps can be developed independently, yet collectively form a cohesive platform.”¹⁴ There is tremendous interest in this project, and the ramifications for libraries are significant. It will offer technical services departments a blank slate and the autonomy to create the workflows that make the most sense for their unique situations.

Libraries all over the country are reorganizing workflows and structures, and library schools are awakening to these important and often radical changes. The top-rated library school in the country,¹⁵ University of Illinois at Urbana–Champaign, has a class called Technical Services Functions. It is a “seminar on the principles, problems, trends, and issues of acquiring, identifying, recording, and conserving/preserving materials in all types of libraries and information centers; includes the special problems with serials management; emphasizes service aspects.”¹⁶ My alma mater, Texas Woman’s University, has since introduced the option to choose an emphasis or track, one of which is the “Technical Services/Cataloging Track” for “working in technical services (acquisitions, cataloging/metadata, serials, etc.) in any type of library.”¹⁷ Library schools need to focus on a more holistic approach to technical services duties. Rather than teach a segmented approach to job duties, a technical services class might stress the treatment of each library acquisition, from selection through the process to accessibility of any resource. I would urge emerging technical services librarians and staff to learn *all* of the workflows.

There is a cost involved in cross-training individuals whose new duties are completely unfamiliar to them. The Association for Library Collections and Technical Services (ALCTS), a division of the American Library Association (ALA), offers both a six-week Fundamentals of Acquisitions¹⁸ course and a six-week Fundamentals of Cataloging¹⁹ course for under \$200 each. Both of these web-based courses provide excellent basic skills. Before full efficiency is realized, technical services divisions may also face workflow slowdowns and logjams while employees are learning new skills and routines, which may be costly in terms of time and productivity. Beyond financial

costs for training, however, there are sometimes hidden morale costs. Personnel are more often being assigned multiple tasks where they have formerly been accustomed to only one. Many catalogers have very little training in acquisitions and know little about many of the business functions involved in the acquisitions process. They are often originally drawn to cataloging because they love the detail-oriented and rewarding process of cataloging itself and are dismayed to be thrust into the completely different realm of acquisitions. Adequate training and open communication will go a long way toward a successful transition.

CONCLUDING THOUGHTS

My initial position was that the next-generation library platforms have forced libraries—and in particular technical services departments—to collaborate in novel ways, collapsing and combining duties and workflows that had been wholly separate for decades. After considerable research and discussions with colleagues, my understanding of this dynamic has become more nuanced. While I maintain that those divisions and boundaries within departments have largely evaporated, there are two modifications I would make to my original understanding. First, innovators of library systems—many of whom are themselves librarians—are reacting to real changes in the information marketplace and are in large part responding to librarians, who are demanding products that will be adaptive to their changing needs and workflows. Instead of librarians scrambling to keep up with ever-changing technology, I now see librarians exerting pressure on industry pioneers to meet the challenges that are widely recognized. Every student or citizen who visits the library and attempts to locate and make sense of information that comes in every imaginable format understands that libraries need better, constantly evolving tools to deliver that information.

Further, before I learned about Alma and the upcoming FOLIO initiative, I had understood the new LSP protocols as enabling staff to skip across the platform and consolidate tasks, with the system administrator able to create tailor-made workflows for each position within each library. I now realize I hadn't taken my image of the consolidated

workflows far enough. A more complete understanding of the newest LSPs eliminates all externally imposed boundaries or preset workflows. Perhaps future technical services departments will be able to invent themselves, hiring individuals to fill a workflow rather than a static job position. This will have a profound effect on the library job market. The future technical service librarian may be called upon to select, order, catalog, receive, and make accessible print, electronic, and streaming text and media. Future technical service workers will understand metadata and how to work with vendors of print monographs, streaming videos, e-books, and journals.

NOTES

1. Ping Fu and Moira Fitzgerald, "A Comparative Analysis of the Effect of the Integrated Library System on Staffing Models in Academic Libraries," *Information Technology & Libraries* 32, no. 3 (2013): 54, accessed July 21, 2017, <http://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=90292067>.
2. G. Edward Evans, Sheila S. Intner, and Jean Wells, *Introduction to Technical Services* (Greenwood Village, CO: Libraries Unlimited, 2002), 3–4, accessed July 19, 2017, <http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=80812>.
3. Evans, Intner, and Wells, *Introduction*, 132–45.
4. Marshall Breeding, "Library Systems Report 2017," *American Libraries* 48, no. 5 (2017): 24, accessed July 21, 2017, <http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=122898577>.
5. "ProQuest—Who We Are," ProQuest, accessed July 29, 2017, <http://www.proquest.com/about/who-we-are.html>.
6. "EBSCO Information Services Products & Services," EBSCO, accessed July 29, 2017, <https://www.ebsco.com/products>.
7. "WorldShare Management Services," OCLC, accessed July 29, 2017, <https://www.oclc.org/en/worldshare-management-services.html>.
8. Marshall Breeding, "New Library Collections, New Technologies, New Workflows," *Computers in Libraries* 32 (2012), no. 5: 24, accessed July 21, 2017, <https://tamuct.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=edsgcl.294194464>.

9. Caroline Young, "Trends in Library Systems: Improved Workflow Processes, Greater Collaboration, and Unbounded Openness," *Legal Reference Services Quarterly* 32, no. 4 (2013): 311, accessed July 21, 2017, <https://doi.org/10.1080/0270319X.2013.842824>.
10. Fu and Fitzgerald, "A Comparative Analysis," 55.
11. Kristen Wilson, "Introducing the Next Generation of Library Management Systems," *Serials Review* 38 (2013), no. 2: 114, accessed July 21, 2017, <http://search.ebscohost.com/login.aspx?direct=true&db=edswss&AN=000307618600008>.
12. "Item Search in Amazon," Ex Libris, accessed August 26, 2017, [https://knowledge.exlibrisgroup.com/Alma/Product_Documentation/Alma_Online_Help_\(English\)/Acquisitions/100Advanced_Tools/008_Item_Search_in_Amazon](https://knowledge.exlibrisgroup.com/Alma/Product_Documentation/Alma_Online_Help_(English)/Acquisitions/100Advanced_Tools/008_Item_Search_in_Amazon).
13. Wilson, "Introducing the Next Generation," 112.
14. Breeding, "Library Systems Report 2017," 25.
15. "Best Library and Information Studies Programs," *U.S. News & World Report*, accessed May 23, 2019, <https://www.usnews.com/best-graduate-schools/top-library-information-science-programs/library-information-science-rankings>.
16. "iSchool at Illinois Full Catalog," School of Information Sciences, the ISchool at Illinois, accessed May 23, 2019, <https://ischool.illinois.edu/degrees-programs/courses/is578>.
17. "TWU LIS Program Tracks," Texas Woman's University, last updated February 21, 2017, <http://www.twu.edu/slis/programs-admission-requirements/program-tracks/>.
18. "Fundamentals of Acquisitions," Association for Library Collections and Technical Services, accessed August 19, 2017, http://www.ala.org/alcts/confevents/upcoming/webcourse/foa/ol_templ.
19. "Fundamentals of Cataloging," Association for Library Collections and Technical Services, accessed August 19, 2017, http://www.ala.org/alcts/confevents/webcourse/foc/ol_templ.

CHAPTER 8

Partnering for Change: Collaboration Between Acquisitions and Cataloging at the University of Maryland Libraries

Bria Parker, L. Angie Ohler, and Nathan B. Putnam

INTRODUCTION

As the largest university library system in the Washington, D.C.–Baltimore area, the University of Maryland Libraries serves 37,000 faculty and students at the flagship campus located in College Park, Maryland. Comprised of one main library with seven branch library locations, UMD Libraries has an operating budget of nearly \$29 million, including a collections budget of \$12.3 million, and is ranked 40th among the 115 members of the Association of Research Libraries and 10th in electronic resources as a percentage of total library materials. With 4.75 million books, the UMD Libraries' growing e-book collections now number 1.2 million volumes, a quarter of its book collection. Combined with the its almost entirely electronic journal and database collections worth \$10.5 million per year, the UMD Libraries has invested heavily in electronic resources.

The UMD Libraries is active in three library consortia: the Big Ten Academic Alliance (BTAA), the NorthEast Research Libraries (NERL), and the University System of Maryland and Affiliated Institutions (USMAI). The 17 USMAI member libraries have a long tradition of resource sharing as well as a common integrated library system, with College Park playing a leadership role for many years in the group's cooperative electronic resource purchasing program as well as coordinating the business contracts for major book and serial vendors for the

group. While College Park may be the largest of the USMAI libraries, its staff is relatively small given its collection size when compared to other NERL or BTAA libraries. The investment in electronic resources combined with a lean staff have over time produced an environment in which the UMD Libraries has pointedly embraced operational efficiencies and economies of scale that would allow the Libraries' excellent staff to work collaboratively and collectively toward the same goal: to seamlessly and efficiently connect the user to the world of knowledge.

This chapter discusses the evolving relationship between the Acquisitions and Metadata Services (also referred to as cataloging) units at the UMD Libraries and the influence their relationship has had on the reorganization of traditional technical services. As the work surrounding resource management has steadily shifted from print-centric to electronic-based resources, the need for collaboration between acquisitions and cataloging units becomes vital. Over the course of many years, the Acquisitions and Metadata Services units at UMD Libraries have pursued twin strategies for coping with the magnitude of this shift. Both units worked to share the management of electronic resources throughout the organization, sharing expertise and workflows with other units responsible for the management of those resources, eventually creating shared workflows for the work done in the OCLC WorldCat knowledge base to manage the e-resource content.

As the UMD Libraries pursued the final implementation of its discovery catalog, WorldCat Discovery, the Acquisitions and Metadata Services units quickly realized core gaps in both staffing and skills, notably in the areas of discovery, e-resource management, and non-traditional metadata. With the departure of the head of Metadata Services, UMD Libraries took the opportunity to rethink its technical services operations, creating a new structure, Collection Services, which would build on existing strengths while also allowing opportunity for growth where it was needed most. The new unit is comprised of four departments—Acquisitions and Data Services, Continuing Resources and Help Desk, Discovery and Metadata, and Original and Special Collections Cataloging—each representing a unique combination of expertise to ensure an efficient path for making resources visible and accessible to users.

LITERATURE REVIEW

Cooperation between acquisitions and cataloging departments is long established and has been primarily anchored in workflows for pre-order cataloging and cataloging at the point of order. Departments learned that they could be more efficient if they worked collaboratively and consolidated their workflows. This trend toward developing workflow efficiencies, such as reducing the number of times a cart of materials gets moved around within and between departments, or the number of times a book changes hands, continues to drive how technical services frame their work. The complementary relationship between cataloging and acquisitions has at times resulted in an integration of acquisitions and cataloging units, as at The University of Southern Mississippi,¹ or in the relocation and cross-training of staff to better accommodate the new tasks and workflows, as at Penn State University Libraries.² Such transformations resulted in streamlined workflows and a relief of bottlenecks.

The exponential growth of electronic resources and the workflows that have developed and evolved around them have put strain on this status quo and required workflows to become more fluid in order to adapt to the new systems and technologies available for managing these resources. Acquisitions and cataloging departments have needed to address how to handle these resources in new ways and using new tools. In some cases, a new position for an e-resources librarian or technician was created in order to develop the expertise needed to establish and execute new workflows for these materials.³ Developing and refining new workflows for e-resources has been the digital equivalent of reducing the number of times a cart of materials gets moved around within or between departments.

For most libraries, the tool of choice for managing electronic resources, particularly e-journal subscriptions and database titles, has become the knowledge base, an index of electronic collections that sits outside of the traditional ILS (integrated library system) OPAC (online public access catalog) and which can be customized to reflect a library's e-resource holdings.⁴ Managing e-resources manually in the ILS is not feasible given how often journal content moves between platforms and publishers and the fluidity of restrictions publishers

place on e-journal content within databases. Depending on whether a library imported vended records for its approval book plans, electronic resources marked an increasing reliance on vended data to support what have today become the vast majority of yearly library collections purchased—electronic resources. Libraries chose one of two paths for managing the divide between the KB and the OPAC for electronic resources: (1) reconcile the KB with the OPAC by further purchasing a MARC record-loading service that would push bibliographic records and holdings into the OPAC for everything activated in the KB, or (2) teach the user to search for print books and journals in the OPAC and electronic journals via the KB's A–Z list.⁵ The degree to which the management of electronic resources involved staff located in acquisitions, IT, cataloging departments, or new electronic resource management (ERM)-focused units was often the result of the size of the library and the degree to which ERM was perceived to fit into the existing print workflow of these traditional units or something new that required different skills, different personnel, and a different structure.⁶ For those libraries who chose to maintain separate search points between e-resources and print resources, the implementation of cloud-hosted discovery systems was meant to finally bridge the divide between silos, allowing libraries to return to one central interface for the management and discovery of all resources.

As with any migration to a new system, the opportunity to reexamine local practices should never be overlooked, but this advice is perhaps even more important for cloud-based systems, as the PALNI (Private Academic Library Network of Indiana) libraries discovered after their group migration to Primo.⁷ The libraries had used Aleph and assumed their workflow practices were similar based on what they believed to be common use of the same system. As the libraries moved to implement a cloud-based system, they quickly realized the difference between the two technologies, becoming painfully aware that each library's locally hosted instance of Aleph had resulted in divergent implementations, updates, and use of Aleph over many years. Since cloud-based systems do not allow for the kind of customization typically seen in locally hosted systems, these differences had to be normalized, and the libraries reported that a lot of data cleanup was necessary to ensure that the data fed into the new shared discovery layer would be consistent. The reality is that libraries do not always

anticipate the need to examine local workflows and legacy practices and sometimes miss the chance to fully realize the benefit of the automation and economies of scale possible with cloud-based technologies, unless, like the Orbis Cascade Alliance libraries, they learn to plan for it.⁸ Having had some experience with the challenges of group migrations from their initial exploration of OCLC's WorldShare Management System (WMS), the Alliance members deliberately built in time for reconciling differences in workflow across member libraries into their implementation plan after a rigorous RFI and RFP process and subsequent selection of Ex Libris Alma with Primo for their shared LSP and discovery solution.

Another factor in the restructuring of technical services departments is the reality of working with fewer staff. As Doherty and Piper point out, one advantage for smaller libraries experiencing attrition is the ease with which staff can implement new workflows and experiment with new technologies when not weighed down by layers of bureaucracy and departmental cultures that inhibit staff from rethinking legacy processes.⁹ For larger institutions who wish to emulate this kind of agility, cross-training is a necessity for improving even the most basic functions and workflows between departments, helping to remove long-standing silos within and between departments, all of which must be refocused on what the user most needs. Eden is right when he says, "The status quo of technical services operations is no longer viable or cost-effective; all of us must look at ways to regain market share and restructure our organizations to collaborate and consult with users regarding their information and research needs."¹⁰ To continue doing the work in the same way it has always been done risks falling behind in meeting new needs. It also risks the reputation of the library with the campus community.

Technical services units increasingly find themselves needing more collaboration with other library units in response to the shift of collection development strategies away from owning collections "just in case" toward accessing collections "just in time." Reducing the physical footprint of little-used print collections can provide new opportunities for technical services staff. Laskowski and Maddox Abbott highlight how merging branch libraries, collections, and services at the University of Illinois at Urbana-Champaign allowed the technical services staff to demonstrate their effectiveness in supporting

the changing mission of the libraries.¹¹ Communicating more effectively with their peers in public services and reducing the territorial division of labor between technical services and public services staff is vital to any library's ability to achieve a new service model.

To build discovery-to-delivery services in response to user demand, libraries may also find they need a very different structure, staff, and skills. In an effort to create what Yue calls "a new focus on designing a comprehensive and cohesive suite of user-centered, discovery-and-access services . . .,"¹² the University of Nevada, Reno, created a knowledge access and discovery position. Recognizing that position would need support, three support staff were re-tasked to the new Discovery and Design department and received additional training in managing e-resources, library discovery platforms, and web services while also becoming trainers for teaching other staff new skills. Other libraries have formed new departments and positions around discovery, such as Wayne State University's Discovery Services Department, which was created in 2011–2012 in recognition of the interdependence of metadata and discovery technologies. Polak explains: "As our physical cataloging workload has changed from cataloging single items to more and more batch data manipulation, a more technology reliant methodology, it has continued to make sense for our teams to be integrated."¹³

A welcome outcome of these shifts is that technical services departments have become proactive rather than reactive. Technical services staff have moved from transaction-based workflows to comprehensive and integrated solution processes. As Moore and Weinheimer note, "we are not collecting fewer or cataloging simpler resources. Instead, we are collecting *more* resources, and they are providing greater challenges."¹⁴ In order to work effectively in building more robust library services, technical services departments find themselves in greater collaboration with other library departments in the planning and support of projects. Gibson describes technical services as "a bridge between understanding how the tools work and how to use them effectively" within a library landscape defined by new user expectations and supporting services that allows students and faculty to create new knowledge rather than simply consume it.¹⁵ Routine actions performed in isolation by specialists whose sole purpose is to caretaker owned collections is no longer possible in the new world of library services. Every staff member must work from a holistic approach, keenly

aware of how the work they do impacts others in the organization. More importantly, every staff member must be able to communicate effectively, embracing and refining skills like collegiality and effective communication that make cooperative endeavors a success when the goal is creating transformational solutions to user needs.

At UMD Libraries, the impact of staff attrition combined with serials inflation and new user needs for physical space created an environment in which the UMD Libraries had to look at building and maintaining collections in a different way. To remain oblivious to these larger forces for change would have left the traditional technical services units with seemingly no role in the new user-focused collection services landscape. Conscious of that fact, the UMD Libraries deliberately began to look at how the work and workflows had already changed over the last decade and began to project future staffing needs. The longer history of this transformation is important, as the staff experience between the former Acquisitions and Metadata Services departments in terms of training for new tasks, cross-departmental workflows, and smaller departmental restructuring are what led to a much larger reorganization across what would become the four different departments within Collection Services. The reorganization and streamlining of workflows will hopefully allow nimble processes, proactively addressing the challenges of creating new discovery to delivery initiatives robust enough to meet a primarily on-demand collection model, connecting legacy print and e-journal subscriptions to digital surrogates held in external cooperative collections, branch closings, and increased involvement in digital projects to better serve the unique and locally held collections.

REFRAMING EXPECTATIONS

Upon starting as the new head of Acquisitions at the UMD Libraries in 2007, Ohler found that many of the units in technical services badly needed to reevaluate legacy processes in light of new work done with new systems and new tools. One area of immediate need was the process by which acquisitions staff were ordering monographic books. Prohibited from exporting bibliographic records from OCLC into the local catalog at the point of order due to the outmoded idea that only cataloging staff could correctly identify the best record, acquisitions

staff, who were primarily library technicians, were forced to manually enter bibliographic records in the ILS for their orders, then duplicate that work in the vendor interface for the vast majority of English language titles ordered. Although the UMD Libraries had finally implemented electronic data interchange (EDI) billing for approval plan books, it had not implemented EDI ordering or billing for firm orders, nor any shelf-ready processing. Unlike most libraries who had long ago implemented these services, the UMD Libraries remained skeptical of the benefits that such routine automation could provide. That soon changed.

A long-standing complaint of the UMD Libraries' public service librarians, particularly those working closely with teaching faculty, was that once a request had been submitted to Acquisitions, faculty had no way to see in the public catalog that the book had been ordered. User expectations had changed, courtesy of the online retail experience, and library personnel were increasingly unable to justify work processes that did not meet those new standards of customer service. Likewise, faculty and students, particularly those served primarily by content held in one of the branch libraries, were becoming more vocal about asking why approval books appearing in the library catalog as "in process" were slow to reach the stacks. Many who complained noted that their peers at other universities did not seem to have this problem. After a year of tracking these kinds of complaints, Ohler suggested that the UMD Libraries take another look at implementing copy cataloging at the point of order in Acquisitions, as well as shelf-ready for both firm orders and approval books.

While in the past the UMD Libraries' technical services units had attempted to spread cataloging expertise throughout the division, including acquisitions staff, the expectations and procedures drafted for staff to follow did not take into account that acquisitions staff were (1) not working with the book in hand already, (2) were often working with cryptic or incomplete title and author information supplied by subject librarians or faculty and students on paper order request forms, and (3) had to match up that cryptic information with what may be limited or incomplete information available through a book vendor database or a publisher website. A testament to the skill it took to identify and acquire books with such limited information, statistics showed users and subject librarians agreed that acquisitions staff ordered the "correct" title 99.5% of the time,

even foreign language and challenging format titles such as music CDs. By early 2008, cataloging staff had created bibliographic export templates in OCLC for acquisitions staff to use at the point of order, bringing in OCLC records for the resource to be ordered. These templates are still used today for those few formats and resources not easily acquired through an approval or vendor service.

Over time, the cataloging staff working closely with acquisitions staff began to appreciate the skill and expertise held by their colleagues in Acquisitions. Even still, it took another few months to convince both the cataloging staff and subject liaison librarians to embrace the idea that vended cataloging and shelf-ready for both approval and firm-order books was in the best interest of the users. In order to inform the conversation, acquisitions staff had researched the number of books returned by subject liaisons due to being out of scope for the collection over the course of the past five years of the approval plan and discovered that no books had ever been returned. After demonstrating how much more quickly books would reach the library users, the UMD Libraries decided that shelf-ready would be implemented. There were many challenges in getting the technical specifications right for such a large part of the Libraries' book acquisitions, but by now the comradery between the acquisitions and cataloging staff was such that they weathered the bumps together, troubleshooting and communicating with each other when things needed to be adjusted or corrected. As a direct result of the cooperation initiated between acquisitions and cataloging staff in the move to cataloging at the point of order and implementing shelf-ready for approval and firm orders from our primary book vendor, the Libraries' technical services units had succeeded in reframing the expectations for copy cataloging and moving the UMD Libraries closer to embracing a better service model for users.

LEARNING FROM EACH OTHER

While workflows for cataloging at the point of order became established, the UMD Libraries also needed to develop and implement workflows for cataloging and providing access to electronic materials. The UMD Libraries had been using the SFX knowledge base to manage holdings and access to e-journals since 2003, discontinuing the

effort to manually manage these in the ILS. Meanwhile, e-book record sets continued to be loaded into the ILS. As the e-book purchases increased, loading e-book records into the ILS was not a sustainable practice, particularly for collections that saw frequent content added or removed, often rendering the catalog out of date within months. This issue was the deciding point for how e-books were to be managed going forward. The goal was to start ordering e-books through approval and firm order accounts, as well as start a demand-driven acquisition (DDA) program, but this could not be done without automation. SFX was not the best tool to manage e-books, and the UMD Libraries knew that OCLC was building an automated KB workflow for libraries working with EBL and ebrary. The UMD Libraries had been evaluating discovery systems in 2008, and in May 2009 the Libraries replaced the local OPAC with WorldCat Local, locally branded as WorldCat UMD. The central interface for searching all materials across the ILS and SFX, the new workflows OCLC was building between its traditional cataloging database and its new knowledge base showed promise for WorldCat UMD users.

In early 2012 the UMD Libraries initiated a project to increase the presence of title-level discovery and access via WorldCat UMD for e-books with a fully automated process, particularly for those books belonging to a DDA collection. WorldCat Local and the development of the WorldCat knowledge base (WCKB) was chosen because they saved UMD Libraries time and money once they were developed enough to support the workflow. It was no longer necessary to load e-book records into the ILS or pay a vendor for OCLC records. It was also no longer necessary to duplicate or triplicate that work by having to further set the holdings in OCLC and then activate the resource in the KB and link resolver. And most importantly for the DDA e-books, it was not necessary to load a DDA e-book record into the ILS and then manually remove it when a purchase was triggered for ownership. Instead, OCLC would receive the data for the e-book holdings directly from the content provider, automatically activating the books in the WCKB and setting the holdings on the appropriate bibliographic record within WorldCat.

One of the challenges in implementing WorldCat Local and WCKB was ensuring that staff in both the acquisitions and cataloging units had the skills needed to transition to this new interface and workflow.

In the absence of strong leadership within technical services, mistakes were made. Some cataloging librarians were reluctant to seek input from staff with e-resource management and knowledge base experience, which led to incomplete or incorrect workflows as well as incorrect data. Meanwhile, acquisitions staff who had already learned how to use the WorldCat knowledge base and were troubleshooting access problems reported by users in the new interface had to reconcile differing workflows between SFX and WCKB and felt sidelined from helping with the work to be done for e-books. On top of this, working with a system or tool that is still in development was an arduous process as its features and functions were in constant flux. Many staff in both departments reported frustration with the system that was still in development. However, once some of the missteps in implementation had been addressed, staff from both departments sought each other out to overhaul the workflows. This process cemented staff's ability and willingness to work together to develop and implement flexible workflows that could mature alongside the system. This was hard work for all, but eventually the work came together and the system became the backbone of the workflow processes.

Within a recently reorganized cataloging department now called Metadata Services, a new unit was created specifically to work on the e-book workflow. Metadata Resource Management and Discovery (MRMD) consisted of cataloging librarians and technicians who would focus on providing discovery for e-books and e-book collections. Technicians worked mainly on an e-book version of shelf-ready and the librarians focused on activating collections of e-books within the WCKB for already purchased materials. After MRMD was created, Putnam was hired as its supervisor in June of 2012, and he needed to quickly learn the new collection creation process. This was complicated by the fact that the librarian overseeing the new process had accepted a new position elsewhere. Since the e-shelf-ready process was stable, Putnam concentrated on the creation and monitoring of WCKB collections with the two librarians assigned to this work. Together they divided up the list of collections by provider. They also began to work closely with acquisitions staff to get entitlement lists and determine what resources were actually available.

In June 2013 a library-wide forum was held to discuss issues surrounding discovery. The aim of the forum was to look at what

discovery meant to the UMD Libraries community. As a result, a new group was established to take a holistic look at the discovery tools used by the Libraries and to learn from each other while pursuing discovery features that could help users. One of the key aspects of the new Discovery Group was to be as inclusive as possible with representation from all areas of the UMD Libraries: technical services (cataloging and acquisitions), public services (reference, subject specialists, circulation, and special collections), and IT systems (ILS and digital programs). Because the group was user focused, approximately half of the members were from public services areas, with the other half from systems and technical services. There was also a mix of technicians and librarians. Another result of the collaboration was the creation of two liaison positions who would sit as ex officio members of both the Web Advisory Committee and the Instruction Council, two other library-wide groups with a vested interest in the outcomes of the Discovery Group. The group was co-chaired by the new MRMD unit supervisor and the access services librarian. During its first two years of existence, the Discovery Group did an admirable job of assessing finding tools, including their metadata practices, conducting user studies, developing internal and external communication plans, and providing input and recommendations on the configuration of the discovery tools.

REVEALING THE GAPS

In July 2015, a month after the Discovery Group had come to the end of its two-year charge, the UMD Libraries moved from WorldCat Local to WorldCat Discovery. Before that time, the bulk of the work with e-books had been done by the cataloging unit and the work with e-journals within the acquisitions unit, even though both areas were using the same tools and similar processes. The disconnect between what data was more current in which knowledge base between SFX and WCKB was becoming more noticeable, and the expectation that library staff could continue to manage resources between the two systems or manually update the same data between them was not sustainable. Recognizing this, Putnam approached Ohler about how the two units could better collaborate on e-resource management.

This led to a library-wide decision to move e-journal management from SFX to the WCKB and migrate to the OCLC link resolver, thus streamlining workflows for managing all e-resources within the same system. This massive migration project was a great step in cementing the cooperation between the two units.

There were definite benefits to this transition. Managing all the e-resources in a single system provided an opportunity to more readily evaluate the e-resource collections as data. The two units also worked hard at cross-training, such as sharing Excel formulas and tips for comparing entitlements lists from vendors to title lists within the WCKB. After the initial e-journal load to the WCKB, Parker, the metadata librarian, developed some basic commands to run from the command line in order to parse and evaluate the UMD Libraries' full WCKB holdings from the Knowledge Bases And Related Tools (KBART) file, simplifying the evaluation process as the file is too large to open in Excel. Parker then trained two librarians from the acquisitions unit on using these tools, enabling them with the ability to evaluate remaining gaps from the e-journal migration to WCKB.

Despite these benefits, the UMD Libraries' timing of the move from SFX to WCKB had a critical flaw in relation to the new library-wide Discovery Group. Discovery@UMD 2.0, the second iteration of the Discovery Group, was charged in September 2015 to provide leadership by developing innovative, user-centered solutions to enhance the user experience in the discovery of content from all sources and in all formats and material types. It retained its commitment to a broad perspective of library staff, but the leadership and individuals changed as initial members rotated off the group. While the first Discovery Group had succeeded through its effective communication and interactions, Discovery@UMD 2.0 struggled to achieve the same success and was ill-equipped to deal with the negative reaction from students and faculty about the switch to WCKB. Despite what was thought to be widespread communication to students and faculty about the differences, the switch, which was scheduled during the winter break, was not well received and the complaints rolled in at all levels of management when they returned for the spring semester. This coupled with a slow follow-up to the campus community led to concerns about the effectiveness of Discovery@UMD 2.0. This outcome illustrated the need for more direct input from subject librarians, who

work more closely with faculty and students and could have helped inform their constituencies of the change. By the summer of 2016, the concerns of subject librarians that the new Discovery Group needed a different focus were becoming louder.

Having learned some valuable lessons, Discovery@UMD 2.0 regrouped in September 2016 with a nearly identical charge and new leadership. The focus of initiatives became better informed by a concerted group of subject librarians who were able to benchmark other libraries' experiences with discovery and explore gathering user feedback from their own subject constituencies, all of which allowed the group to better manage some of the expectations surrounding discovery. Using this charge, the group developed a work plan focused on three broad areas: define an "ideal state" for discovery and delivery at UMD Libraries, improve access and fulfillment in discovery, and foster an informed and knowledgeable library staff. While the membership in this iteration of the Discovery@UMD 2.0 included stakeholders from every division, it became clear that it needed dedicated staff to address problems and help test and implement any proposed solutions. Through the course of this benchmarking, the group also saw several institutions adding or reimagining positions to deal with discovery, and in some cases creating new departments focused specifically on discovery, delivery, and access.

A NEW ORGANIZATIONAL STRUCTURE FOR GROWTH

In August of 2016 Putnam left UMD, and the planning process for a new organizational structure began. Before leaving, he and Ohler had many conversations with the associate dean of Collection Strategies and Services about how future technical services areas could function, knowing there would be a continued emphasis on e-materials and discovery and that cataloging skills would continue to grow past MARC and further into knowledge bases and digital collections. One decision that needed to be made was whether to replace the head of Metadata Services position or use that position for something else. If this position were to be reconfigured, cataloging management would need to be rethought, which would also provide an opportunity to look at acquisitions units.

In September of 2016, staff in both Acquisitions and Metadata Services were asked to examine workflows related to their departments—in particular, to look at collaborations between units elsewhere in the division and throughout the UMD Libraries. An additional goal of this review was to identify any potential areas in need of efficiencies. The two areas of need consistently identified by both acquisitions and cataloging staff were discovery and metadata work, particularly as they related to e-resource management, usability and discovery interface issues, troubleshooting metadata issues hampering e-resource access, managing large data sets relating to customizing e-resource collections, and communicating with other units in the UMD Libraries about these often very complicated issues.

The discovery workflows at both the unit and department levels exposed some redundancies, but they also made plain that the major challenge was in managing the discovery tools, particularly in relation to the larger UMD Libraries. Staff from many different parts of the Libraries played some role in these workflows, but they had become inefficient, uncertain, and too distributed within technical services. While it's always wise to have staff share knowledge between them about tools and workflows, there was a need to consolidate staff with core responsibilities for discovery to allow them to work more closely together and have a common voice when communicating with other library units. The flip side of this was that there were too few librarians focused on metadata for digital collections and data sets, and work was backlogging despite the best efforts of Parker as the lone metadata librarian among 22 librarians and technicians in a Metadata Services unit primarily devoted to traditional cataloging functions. The review of unit and departmental workflows made it clear that the UMD Libraries would benefit from the addition of a position that focused on all aspects of discovery. This position would be a bridge between work done in acquisitions and cataloging, but also other units in the UMD Libraries for which discovery was an important issue, such as systems, collection development, subject specialists, access services, resource sharing, and user education. It would also free up Parker to focus on metadata work again, no longer struggling between prioritizing discovery versus metadata. To that end, in November of 2016, managers in Metadata Services submitted a staffing request for a discovery

librarian position. Acquisitions supported the position as one that would benefit both units.

After discussion with the library administration, it became clear that the UMD Libraries' budget would not support adding a new position while backfilling the head of Metadata Services. The associate dean of Collection Strategies and Services decided to split the former Acquisitions and Metadata Services units into four departments, promoting four of the existing librarians to department heads and Ohler to a director and trading the Metadata Services head position for a new discovery librarian position. Collection Services, led by Ohler, was implemented in April 2017. As seen in figure 8.1, Collection Services is part of the larger Collection Strategies and Services Division and is comprised of 32 FTE librarians and library staff, 3 graduate assistants, and 3 hourly contract librarians spread across four departments: Acquisitions and Data Services, Continuing Resources and Database Management, Discovery and Metadata Services, and Original and Special Collections Cataloging.

After a successful search, the new discovery librarian began work in Discovery and Metadata Services in August 2017. As seen in figure 8.2, the discovery librarian is one of five in a department comprised of two professional librarians, one of which is the department head, one professional non-librarian copy cataloger, one library services technician copy cataloger, and one graduate assistant. The decision to move two traditional copy catalogers into this new unit was both an acknowledgment that support for discovery and metadata was needed at all staffing levels and a recognition of the interest these two library staff members have expressed in learning more about discovery and metadata tools since currently they manage the majority of the firm-order e-books in WCKB. The flat reporting structure is deliberate; all positions in the department report to the department head, reinforcing an egalitarian culture in which the structure does not distinguish between rank and professional status. Departmental members all have their strengths and are expected to work with each other to learn and share knowledge.

UMD Libraries is already seeing the benefits of having the discovery librarian on board. During his first week on the job, he played a critical role in monitoring the discovery interface, tracking a performance problem as the UMD Libraries worked with OCLC to test

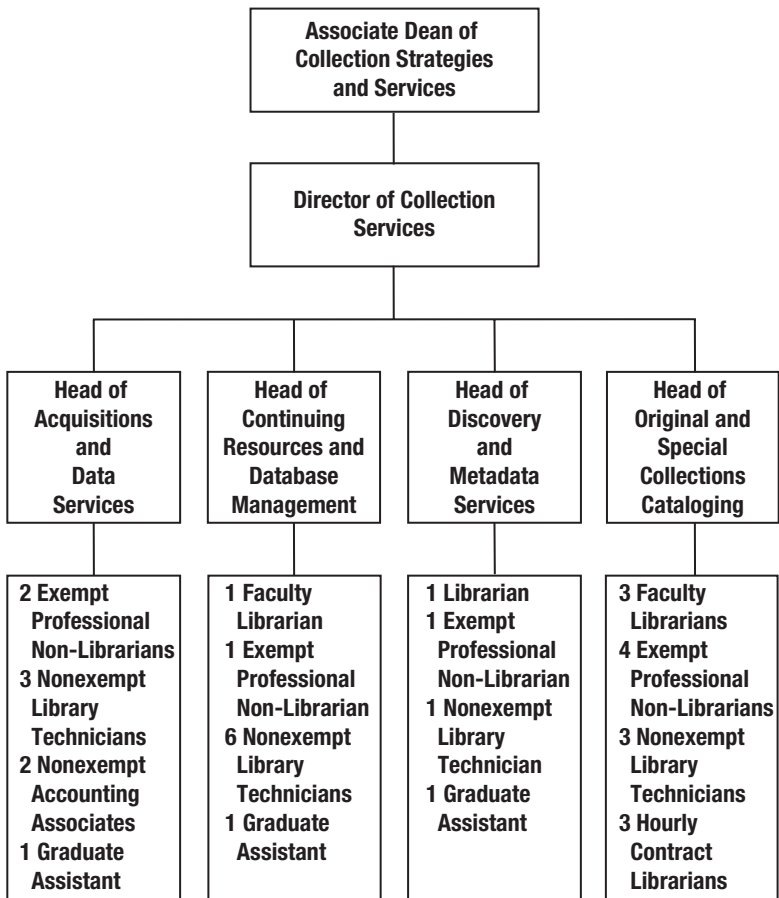


Figure 8.1 Collections Strategies and Services organization chart.

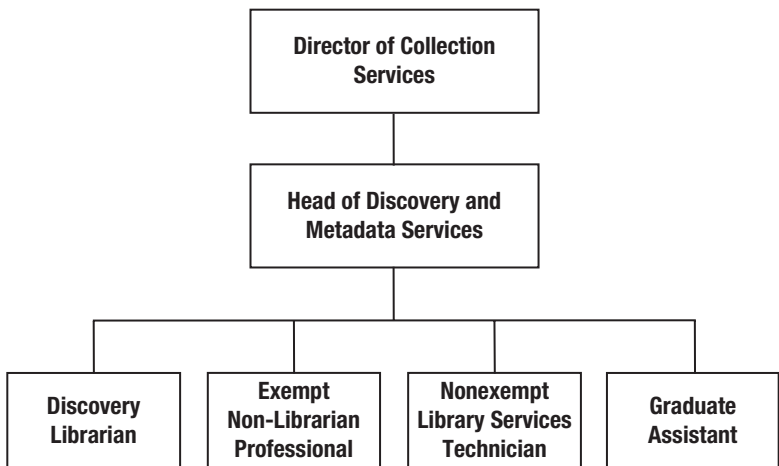


Figure 8.2 Discovery and Metadata Services organization chart.

solutions for it. It is also expected that he will take a leadership role in the continually evolving Discovery Group, leading the implementation of improvements to the discovery environment, further investigating usability, and coordinating the conversation that is needed across the multiple units and committees responsible for parts of this process.

Since the transition, some additional goals of the reorganization are beginning to materialize. The shift to four smaller units spreads cataloging expertise more evenly across the four departments. Meanwhile, staff have access to information sharing groups for both cataloging and e-resource management skills, open to anyone with an interest in them. One goal of these sessions, in addition to information sharing, is to continue to foster a sense of unity and collegiality across the new departments. Ohler and the Collection Services department heads also recently held a daylong retreat for the staff, the first of its kind for many of them. The goal of the retreat was to provide a forum for the group as a whole to define a mission, a vision, and values that reflect the contributions they make to the wider library organization. This experience also allowed the collection services staff to identify and discuss concerns and issues important to them, something that is now becoming the basis of the Collection Services Strategic Plan for the next two years.

CONCLUSIONS

The iterative process toward reorganization exemplifies some lessons that are important to any library. Taking a longer view of the organizational history and observing changes over time can certainly help any library in identifying the direction it may need or want to go. It can also bring clarity on the missteps of the past that need to be avoided. Conscious steps were taken not to employ new librarians for the purpose of acting as change agents unless the organizational structure was reorganized to ensure the success for that entire area of responsibility. In our collective experience, hiring someone with the intent of moving the library in an innovative direction is definitely worth doing, but it is unfair to that person if ensuring the resources, structure, and support needed to achieve that goal is not also a priority for the organization itself. The flipside of this issue is knowing when

responsibilities must be assigned to specific individuals whose role is to ensure their completion and success. It is crucial that libraries identify where specific responsibilities like discovery should reside within an organization and that staff dedicated to discovery services be hired to work on them. Adding these responsibilities to an existing position or to staff who otherwise are focused on other important areas of the library is not sustainable.

Another area for lessons is understanding how to minimize territorial feelings surrounding new areas of responsibility, whether internally across departments or externally across the libraries. That message starts with leadership. Any issue affecting the collegiality of individuals meant to work across different structural areas has to be addressed quickly and in a way that does not sideline the expertise and talent of those who otherwise could contribute to the organization's success. One very important goal for this reorganization was a reset on the relationship between public services and collection services staff at the UMD Libraries. Ohler deliberately sought the advice of the newly promoted director of User Services and Resource Sharing, who had recently held a retreat and led a reorganization effort of his own. When he offered to help with planning and facilitating the Collection Services retreat, Ohler and the Collection Services heads were delighted to accept his kind offer.

Collection Services also sought the advice of internal stakeholders throughout the UMD Libraries who work closely with Collection Services units to find out what we were doing well and where we needed improvement. One outcome from these conversations may lead to a library-wide effort to better coordinate customer service and user communication under a new service model embraced by all library units. In modeling a behavior of trust and openness, we hope this reinforces for our colleagues that Collection Services should always be at the planning table when it comes to library-wide projects and initiatives. As the UMD Libraries moves toward more on-demand services for collections, other areas in need of this same sort of collaboration are managing research and big data sets, usability testing across the UMD Libraries' many user interfaces, connecting legacy collections reliably to digital surrogates, maintaining perpetual access entitlements for former e-journal subscriptions, and implementing new sustainable services and tools that ensure on-demand fulfillment.

NOTES

1. Ann Branton and Tracy Englert, "Mandate for Change: Merging Acquisitions and Cataloging Functions Into a Single Workflow," *Library Collections, Acquisitions, and Technical Services* 26, no. 4 (2002): 345–54, <https://doi.org/10.1080/14649055.2002.10765871>.
2. Robert B. Freeborn and Rebecca L. Mugridge, "The Reorganization of Monographic Cataloging Processes at Penn State University Libraries," *Library Collections, Acquisitions, and Technical Services* 26, no. 1 (2002): 35–45, <https://doi.org/10.1080/14649055.2002.10765816>.
3. Christian Burris, Derrik Hiatt, and Steve Kelley, "The Intersection of Serials Acquisitions, Cataloging, and Electronic Resource Management," *Technicalities* 33, no. 3 (2013): 12–15.
4. Kristen Wilson, "The Knowledge Base at the Center of the Universe," *Library Technology Reports* 52, no. 6 (2016): 1–37, <https://journals.ala.org/index.php/ltr/issue/view/606>.
5. Rebecca Kemp, "MARC Record Services: A Comparative Study of Library Practices and Perceptions," *The Serials Librarian* 55, no. 3 (2008): 379–410, <https://doi.org/10.1080/03615260802056367>.
6. Kimberly R. Abrams, "Electronic Resource Management and Design," *Journal of Electronic Resources Librarianship* 27, no. 3 (2015): 151–64, <https://doi.org/10.1080/1941126X.2015.1059642>.
7. Noah Brubaker, Susan Leach-Murray, and Sherri Parker, "Implementing a Discovery Layer: A Rookie's Season," *Computers in Libraries* 32, no. 3 (2012): 13–19.
8. Kathleen Spring, Megan Drake, and Siôn Romaine, "How Is That Going to Work? Rethinking Acquisitions in the Next-Generation ILS," *Proceedings of the Charleston Library Conference 2013* (West Lafayette: Purdue University), 372–77, <https://doi.org/10.5703/1288284315289>.
9. Brian Doherty and Alison Piper, "Creating a New Organizational Structure for a Small Academic Library: The Merging of Technical Services and Access Services," *Technical Services Quarterly* 32, no. 2 (2015): 160–72, <https://doi.org/10.1080/07317131.2015.998466>.
10. Bradford Lee Eden, "The New User Environment: The End of Technical Services?" *Information Technology and Libraries* 29, no. 2 (2010): 93–100, <https://doi.org/10.6017/ital.v29i2.3148>.

11. Mary S. Laskowski and Jennifer A. Maddox Abbott, "Behind the Scenes But Not Behind the Times: Technical Services Support for New Service Model Initiatives," *Technical Services Quarterly* 33, no. 1 (2016): 1–13, <https://doi.org/10.1080/07317131.2015.1093816>.
12. Paoshan W. Yue, "Transforming Technical Services: A Case Study at the University of Nevada, Reno Libraries," *Technical Services Quarterly* 30, no. 3 (2013): 258, <https://doi.org/10.1080/07317131.2013.785774>.
13. Elliot Polak, email message to Bria Parker, July 24, 2017.
14. Julie Renee Moore and James L. Weinheimer, "The Future of Traditional Technical Services," in *Rethinking Library Technical Services: Redefining Our Profession for the Future*, ed. Mary Beth Weber (Lanham: Rowan and Littlefield Publishers, 2015), 6.
15. Sally Gibson, "Creating Solutions Instead of Solving Problems: Emerging Roles for Technical Services Departments," *Technical Services Quarterly* 33, no. 2 (2016): 150, <https://doi.org/10.1080/07317131.2016.1134998>.

PART 3

Acquisitions, Interlibrary Loan, and Reserves

EDITED BY ROBIN BARNARD MOSKAL

Over the past 35 years, interlibrary loan (ILL) has transitioned from a fairly siloed unit borrowing esoteric materials for faculty and doctoral students to a dynamic service that can deliver ILL articles within minutes and collaborates with other library units to create workflows that ultimately turn ILL book requests into fast book purchases for users. The brief history that follows explains the constant growth of ILL to request and deliver materials as quickly as possible for our users.

Up until the 1970s, ILL units had been using mailed American Library Association (ALA) request forms for the majority of ILL borrowing. However, at that time, technology in the form of the TWX or teletype machine was introduced that allowed libraries to send ILL requests in a few minutes to other TWX-equipped libraries. The speed was intoxicating—to type in a request and send it electronically, knowing that the lending library would receive it within seconds of the sending, was a marvel.

However, within a few years, the development and adoption of the OCLC ILL system allowed many departments to move away from these earlier tools and toward almost exclusive electronic sending of ILL requests. As many libraries were using OCLC when cataloging and recording their holdings, it became easier to find libraries from whom to borrow. Speed continued to be the major factor in trying to access the materials our users wanted.

One speed bump was that no matter how quickly the requests for print materials were sent out, the items would still arrive via U.S. mail or, for articles, often as mediocre faxes. Faxes were definitely an improvement over waiting for articles to arrive in the mail, but the quality was uneven.

With the introduction of RLG's Ariel article scan and send system in the early 1990s, articles could be delivered within days rather than weeks. The quality of the scans was far superior to copied and faxed articles, and delivery costs were less. Users were pleased to receive their articles in a fraction of the time, and ILL began to change from the last resort to a faster way to get needed materials. Users began to expect, rely on, and marvel at the speed of ILL, and libraries continued to develop ways to meet those expectations.

Pre-Internet, locating ownership of books and journals was limited to searching through tools such as OCLC, the *Union List of Serials* and the *National Union Catalog*; there were fewer citations available then and a limited number of holding libraries. With the advent of the World Wide Web, tools such as online library catalogs; citation databases; and online services such as OCLC WorldCat, Google Scholar, and Amazon offered not only more citations but more ways to locate the cited materials.

As more journals went online, publishers and vendors began making articles available for purchase. Rather than spending valuable time trying to find every library that might own an issue of a journal, ILL departments began to develop processes and budgets for quickly purchasing articles that couldn't be borrowed easily or were cheaper to buy. Articles could be delivered within minutes and users were happy. Users want the materials they want and are not concerned with how the library obtains them. As long as the article arrives in a timely manner, it doesn't matter to them whether it was borrowed or purchased.

Purchasing articles from a vendor was a process that could still be completed in ILL, if a purchasing card was available. Not all libraries were able to provide that level of purchasing, yet they still wanted to provide the speed of delivery for their patrons. If acquisitions had a purchasing card, could ILL ask acquisitions staff to purchase the article? Conversations about workflow began to create collaborations that would ultimately serve the users and get them the needed articles quickly.

Most libraries continued to borrow books, though, as the time from request to delivery from a book vendor was often longer than the usual ILL delivery time. Course reserves staff had been purchasing single title books for years, but they usually had the luxury of a few weeks' shipping time as they required faculty to submit reading lists weeks in advance. However, as online vendors such as Amazon and Barnes and Noble began to offer overnight shipping and fast delivery, it became easier for acquisitions staff to purchase single books for the library collection, ILL, and course reserves.

With tightening budgets, ILL practitioners were determining that it might make fiscal sense to purchase an ILL-requested book when the charge to borrow was similar or higher. Books could be rush-ordered and cataloged to meet the needs of the user, with the additional hope that other users might use the material as well. Opportunities for collaboration between ILL, acquisitions, and collection management opened with this new view on providing access to materials in new ways.

Libraries began to experiment with pilot purchase on demand (POD) projects with the strategy of purchasing "just in time" rather than "just in case," allowing ILL to fulfill the needs of a user by perhaps reallocating monograph funds to purchase material someone wanted to use rather than purchasing titles for the library that might or might not ever be used. Users have responded positively to libraries purchasing rather than borrowing the books they want. They appreciate that the library thought the titles they wanted were of value to the collection.

A game changer in terms of tracking and sharing purchase requests was the ILLiad ILL management system from Atlas Systems, introduced in the late 1990s. For the first time, a management system included document delivery of a library's own materials. Previously, ILL had been strictly borrowing or lending, but ILLiad offered the additional process tracking and delivery of articles and books to campus constituents.

As libraries began to purchase books to fulfill ILL requests, they also began utilizing the document delivery function to provide ILLiad access to acquisitions staff who could then retrieve the monograph information, order the material, and update the record so that ILL staff knew whether the purchase was successful and, if not, they could easily convert it back to a borrowing request.

Library staff at the State University of New York at Geneseo took it a step further by creating the Getting It System (GIST) as front-end access that would direct requests to either ILL to be borrowed or to a purchase request form. Users could now determine whether a book should be borrowed or purchased for the library.

Atlas Systems' Ares reserves manager works in a manner similar to ILLiad and allows reserves staff to also share records with acquisitions staff to streamline material purchases.

While more and more libraries are implementing POD projects within ILL, articles detailing the project usually focus on the criteria for selection and evaluation of the program, while providing useful analytical information on title selection, budget, patron use, and department usage. There are many good articles that detail these evaluations, and a sampling are listed in the bibliography.

The following contributions, rather, focus on the collaborations and workflow integrations between the library units ILL, collection management, course reserves, and acquisitions. Projects such as POD and course reserves do not spring forth fully conceived but must be thought out to determine workflows, responsibilities, and outcomes for all involved.

More libraries have begun to develop workflows and procedures that work for them as they navigate new processes that include staff empowered to purchase monographs without prior approval of bibliographers and the expansion of programs to include e-books and media materials for both ILL and course reserves users. There continue to be inquiries on ILL listservs asking for information on criteria and workflows, which shows the interest is continuing to grow.

With this brief history of ILL and course reserves, the following contributions will demonstrate the integrations and collaborations that have been developed by thoughtful, service-oriented libraries and staff.

Mary Radnor's "Create Your Own Acquisitions and Interlibrary Loan Collaboration or Workflow Integration: A Range of Options" provides an overview of options for creating collaborations and workflows between ILL and acquisitions and sets the stage for the next three chapters.

In "Interlibrary Loan Acquisitions Through Collection Development," Alison Armstrong and Elizabeth Johnson detail how Radford

University turned problems into opportunities and created strong collaborations.

In “We Didn’t Fear the Reader: Embracing New Service Models With Staff and Patron Input,” Daniel Huang and Sharon Wiles-Young provide step-by-step examples of how they developed partnerships within the Lehigh University Libraries to create new service models to provide fast and seamless delivery of materials to their users.

The final chapter in part 3, “Interlacing Workflows and Untangling Knots: How Acquisitions and Course Reserves Intersect” by Hilary Thompson and Leigh Ann DePope, details several initiatives undertaken at the University of Maryland that brought course reserves and acquisitions into a partnership that strengthens communication, quality, and customer service.

CHAPTER 9

Create Your Own Acquisitions and Interlibrary Loan Collaboration or Workflow Integration: A Range of Options

Mary C. Radnor

INTRODUCTION

As library collections become increasingly electronic, interlibrary loan (ILL) and acquisitions workflows will continue to become more and more entwined in order to provide access to these electronic materials. This chapter presents the range of collaborations and workflow integrations available to any size or type of library. It will closely examine the extent to which ILL data can be used to determine purchase recommendations, review the various types of purchase on demand (POD) programs, and look at ways in which acquisitions workflows can integrate ILL workflows before turning to traditional methods of ILL.

Options for collaboration between ILL and acquisitions departments include analyzing ILL request data and creating a POD program. Options for workflow integrations include bringing a portion of or the entire ILL operation together with acquisitions. This can be accomplished by customizing ILL web pages to gather additional information for purchase requests and scrutinizing each request for purchase while maintaining the rapid turnaround time necessary for ILL requests.

BACKGROUND

ILL operations have components of library reference, circulation, and acquisitions departments already built into in their workflows by virtue of the innate tasks required of the ILL department. As libraries change their organizational models over time, ILL units are typically shifted among these three departments. Studies have been conducted to analyze where ILL best fits within these areas. In a 2012 study, ILL personnel recommended that the ILL department be organized with the reference department.¹ However, we are currently seeing a trend of ILL units being organized with the acquisitions department. As Shrauger and colleagues point out, ILL has become more backroom processing and because of this is now more likely to be merged with library technical services for collection development purposes.² As a result, it is likely that we will be seeing more and more ILL departments merged with technical services for the purposes of saving costs, streamlining workflows, and providing access to electronic resources that are not available through ILL. Depending on the library, its budget, and its staffing, it may make more sense now than ever before to reorganize in this way.

Given the reality that libraries are purchasing more and more content electronically, and with no easy way for libraries to share e-books,³ it is foreseeable that libraries will not be able to share these materials given the licensing restrictions and lack of scalable sharing models. Regardless, ILL departments will still receive requests for these materials and need a workflow to fulfill these requests. Determining the level of collaboration or workflow integration between ILL and acquisitions departments will become a requirement rather than an option. Being proactive and identifying the best strategies for a given library is the best bet for adapting to the changing and dynamic collections environment and to user needs.

OPTIONS FOR COLLABORATION OR WORKFLOW INTEGRATION

Three levels of collaboration or workflow integration can be created between ILL and acquisitions departments. Each level offers different approaches. The first level is an analysis of ILL request data after the ILL requests have been filled. This requires little coordination

between the ILL and acquisitions departments. The second level is POD programs where purchase criteria are set up for ILL staff to use when processing requests to determine whether it is more cost-effective to purchase an item or to ILL an item. This can require real-time collaboration with the acquisitions staff depending on how the POD program is set up. This level can also include demand-driven acquisition (DDA) or patron-driven acquisition (PDA), where the acquisitions and collection development departments set the criteria and handle all aspects of the program. This is typically an e-book purchase program. The third level is integration of ILL and acquisitions workflows where acquisitions staff, or ILL staff trained in acquisitions, determine whether requested materials are purchased or obtained through ILL. There are many factors that would influence a library's decision to use any one of these approaches, and all of them depend on the staffing and financial resources available, as well as collection development goals.

For the first level of collaboration, ILL staff have traditionally provided request data to acquisitions and collection development staff for consideration to purchase items requested frequently through ILL or which exceed CONTU (Commission on New Technological Uses of Copyrighted Works) guidelines. For libraries just starting to analyze ILL requests for purchase consideration, a good first step is to analyze loan requests to identify the most requested loans and, of those, to determine which to purchase. Analyzing article requests that exceed CONTU guidelines and determining the most cost-effective way to procure them can also be useful. This analysis could result in recommendations to purchase journals. Alternately, it could also result in modifying the ILL workflow to include purchasing individual articles directly from the publisher's website when an article request would exceed CONTU guidelines. As CONTU guidelines apply only to articles published in such periodicals "within five years prior to the date of the request,"⁴ article requests older than this can be analyzed to determine whether a backfile of a journal title should be purchased.

Other ways ILL data can be analyzed for acquisitions and collection development purposes is by connecting ILL data to subject areas and comparing it with circulation statistics to identify areas for further collection development. For libraries that use ILLiad, the WorldCat Information Borrowing Web Report⁵ can also be an easy first step in this type of analysis. This report delivers ILL request information and

corresponding call number classifications for the materials requested if this information is available in the OCLC record. The report can then be used to locate high numbers of ILL requests by certain call number areas so that these areas can be reviewed by acquisitions and collection development staff. This data analysis can be taken a step further by including circulation data as discussed by Link and colleagues.⁶ No matter which approach to ILL requests analysis a library undertakes, there is something that can be learned about collection gaps and user needs—even from a basic analysis. Thus at a minimum, all libraries should be reviewing this data yearly to identify where there are possible gaps in their collection and determine whether there are materials they should acquire as a means to fill those gaps.

For a second level of collaboration, a library may institute purchase programs such as POD or DDA/PDA. A POD program is typically administered by ILL staff in collaboration with acquisitions staff. Before the POD program is initiated, a process to establish workflows and purchase criteria is undertaken so that the program will complement current collection development goals. Setting up appropriate criteria for a POD program is essential to ensuring the success of the program. Parameters for the POD program may include cost, subject, format, publication date, and language. Herrera and Greenwood used the criteria of “a maximum cost of \$150, no popular titles, no audiobooks or VHS, publication within the past 5 years, no dissertations or textbooks, no study guides, workbooks, or self-help books, and no encyclopedias or proceedings.”⁷

There are other questions to consider and answer before starting a POD program. Zopfi-Jordan⁸ listed several questions his library answered about the purpose of its POD program prior to starting it:

- How can staff best fill the request in a timely manner for the patron’s benefit?
- When evaluating the cost to obtain the item, is a purchase more efficient use of funds than paying ILL costs?
- Will the book fit into our overall collection?
- Is it available through a reciprocal ILL agreement?
- Have there been multiple requests for the same item or title?
- Did the ILL request come back unfilled?
- Is the date of publication very recent?

Determining the goals, outcomes, and budget for a POD program is an important step in establishing it.

ILL and acquisitions staff must also determine their workflow for communicating and purchasing materials. When the POD program is initiated, ILL staff will identify requests that meet the predetermined criteria for purchase and forward them to acquisitions staff. The goals of this approach are to keep the POD process as seamless to the patron as a normal ILL request would be with a rapid turnaround time, reduce the costs around procurement of ILL materials, and develop collections based on the assumption of at least one use of the item purchased. If it is not desired that there be a collection-building aspect to the POD program, it could be set up to consider only costs savings and turnaround time. For this approach, items are purchased rapidly only when they are less expensive than the average cost of an ILL; returned items are added to the gift books process for later evaluation.

Imamoto and Mackinder offer a phased model they used when initiating their POD service. They piloted their program, gathered and analyzed data, and improved the service over time incrementally.⁹ This thoughtful approach would allow libraries to operationalize a program that truly meets the needs of their users.

A DDA or PDA program usually does not involve the ILL workflow at all, but it can also directly address patron research needs. These programs require a preselected set of bibliographic records, typically for electronic materials, to be loaded into the discovery system and for patrons to “trigger” item purchases. Purchases can be triggered by a range of criteria such as the number of times an item is used, the length of use, and/or the number of pages viewed. Each DDA/PDA program has different aspects based on which vendor and vendor platform is used, the set purchase triggers, and the amount of money the library has set aside for the program. For example, the City University of New York launched a PDA in the fall of 2014 in which “a purchase occurred after two triggers. A trigger was a view past the table of contents. The titles [purchased] are single-user and non-downloadable. An initial deposit of \$75,000 was depleted in just under 5 months and 363 e-books were selected by patrons from all over the university.”¹⁰ The DDA/PDA could be mediated if desired with ILL staff doing the mediation and setting up the short-term loans (STL). This was done at the College of New Jersey Library with the ILL staff making items

available for STL to patrons on a title-by-title basis.¹¹ With the wide range of options available for purchase programs, a POD or DDA/PDA program can be created to fit any size of library, with a range of goals possible for the program. The primary constraining factor for such a program is the amount of funding available.

For the third level of integration, ILL workflows are analyzed for integration with acquisitions workflows. An example of this is training ILL staff to purchase requested items (as acquisitions staff do) and collecting additional information via the ILL request web pages for requests that may be purchased instead of obtained through ILL. This information could include whether electronic formats are acceptable to the requestor and whether the requestor suggests the item be added to the collection. This could also require acquisitions staff to review each ILL request to see if it is more economical to purchase the item electronically than to obtain it through ILL. Shrauger and colleagues discuss the results of the reorganization of her Interlibrary Loan and Document Delivery Services Department from the Public Services Department to the Technical Services Department. This reorganization resulted in increased departmental communication and collaboration between the ILL, Acquisitions, and Cataloging departments and in project collaborations that had been difficult to accomplish prior to the merger.¹² As more and more ILL and acquisitions departments publish about their experiences with merging workflows, there will be more known about best practices and the benefits and drawbacks of organizing the ILL and acquisitions workflows in this way.

DISCUSSION

Each of the approaches discussed has pros and cons to be weighed when determining which approach to take. One way to determine the best method for purchasing rather than borrowing is to do a cost analysis. There must be a balance in the cost savings for ILL and the increased workload acquisitions takes on. The ILL cost studies show the total mean cost of an ILL transaction (for both loans and articles) from start to finish (lending and borrowing costs) have come down over time from \$26.77 (ARL 2002 data) to \$13.55 (Leon/

Kress FY 2011 data).¹³ In his study on the true cost of POD, van Dyk determined that the minimum cost for acquisitions to add a book to a collection would be \$17.37.¹⁴ This does not include the cost of the book purchased. In this same article van Dyk also found that the average break-even point of a POD item was three circulations; 72% of the items in his study had three or more circulations. Determining the break-even cost for any of these options could help in identifying the best approach for a given library.

Cost is not the only factor in determining the best ILL and acquisitions collaboration or workflow integration. Other factors to consider are how best to improve patron service, whether to include a collection-building aspect to the collaboration or integration, and the streamlining of workflows. The priorities and goals of a given library will drive the direction of this collaboration or workflow integration.

CONCLUSION

Three levels of collaboration or workflow integration can be created between ILL and acquisitions departments. Each level offers different approaches that require different levels of funding and staffing and offer different ways of helping libraries meet the outcomes they set. Libraries will need to analyze which approach works best for them based on their needs, resources, and desired outcomes. As library collections become increasingly electronic, reevaluating and streamlining workflows will continue to be essential in meeting the research needs of users. Libraries sharing their experiences with these various approaches will help inform other libraries that may be considering them and provide best practices.

NOTES

1. Hong Ta-Moore and Kathleen S. Mannino, "A Case for Integration of Interlibrary Loan and Reference," *Journal of Interlibrary Loan, Document Delivery & Electronic Reserves* 22, no. 5 (2012), 197–203, <https://doi.org/10.1080/1072303X.2012.723672>.
2. Kristine J. Shrauger, Cara Mia Calabrese, and Peter Spyers-Duran

- II, "ILL Data Drives Technical Services Projects," *Technical Services Quarterly* 33, no. 1 (2015): 14–22, <https://doi.org/10.1080/07317131.2015.1093818>.
3. Joanne Percy, "E-Book Lending: The Challenges Facing Interlibrary Loan," *Interlending & Document Supply* 41, no.2 (2013): 43–47, <https://doi.org/10.1108/ILDS-02-2013-0006>.
 4. Carrie Russell, *Complete Copyright: An Everyday Guide for Librarians* (Chicago: American Library Association, 2004), 201.
 5. "Borrowing Web Reports," *ILLiad 8.7 Documentation*, Atlas Systems, last modified November 8, 2018, <https://support.atlas-sys.com/hc/en-us/articles/360011909413-Borrowing-Web-Reports>.
 6. Forrest E. Link, Yuji Tosaka, and Cathy Weng, "Mining and Analyzing Circulation and ILL Data for Informed Collection Development," *College & Research Libraries* 76, no. 6 (2015): 740–55, <https://doi.org/10.5860/crl.76.6.740>.
 7. Gail Herrera and Judy Greenwood, "Patron-Initiated Purchasing: Evaluating Criteria and Workflows," *Journal of Interlibrary Loan, Document Delivery and Electronic Reserve* 21, no. 1–2 (2011): 924, <https://doi.org/10.1080/1072303X.2011.544602>.
 8. David Zopfi-Jordan, "Purchasing or Borrowing: Making Interlibrary Loan Decisions That Enhance Patron Satisfaction," *Journal of Interlibrary Loan, Document Delivery, and Electronic Reserve* 18, no. 3 (2008): 387–94, <https://doi.org/10.1080/10723030802186447>.
 9. Becky Imamoto and Lisa Mackinder, "Neither Beg, Borrow, nor Steal: Purchasing Interlibrary Loan Requests at an Academic Library," *Technical Services Quarterly* 33, no. 4 (2016): 371–85, <https://doi.org/10.1080/07317131.2016.1203642>.
 10. Nancy Egan, Simone L. Yearwood, and Curtis L. Kendrick, "Patron-Driven Acquisitions at the City University of New York: A Case Study," *Technical Services Quarterly* 33, no. 2 (2016): 131–44, <https://doi.org/10.1080/07317131.2016.1134997>.
 11. Bethany B. Sewell and Forrest E. Link, "Developing Workflows for Short-Term Loans of Ebooks as an Adjunct to ILL: Part Two," *Technical Services Quarterly* 34, no. 1 (2017), 34–39, <https://doi.org/10.1080/07317131.2017.1238200>.
 12. Shrauger, "ILL Data Drives Technical Services," 14–22.
 13. Lars Leon and Nancy Kress, "Looking at Resource Sharing Costs,"

- Interlending and Document Supply* 40, no. 2 (2012): 81–87, <https://doi.org/10.1108/02641611211239542>.
14. Gerrit van Dyk, “Interlibrary Loan Purchase-on-Demand: A Misleading Literature,” *Library Collections, Acquisitions and Technical Services* 35, no.2/3 (2011): 83–89, <https://doi.org/10.1016/j.lcats.2011.04.001>.

CHAPTER 10

Interlibrary Loan Acquisitions Through Collection Development

Alison M. Armstrong and Elizabeth S. Johnson

INTRODUCTION

Radford University is a four-year comprehensive public institution in southwestern Virginia with a student FTE (full-time equivalent) of just under 9,000 in 2016–2017. Our students are roughly 92% undergraduate, 6% graduate, and less than 2% post graduate/doctorate. It is notable that 41% of our new freshmen are first-generation college students.

McConnell Library, which is the primary library serving Radford University, is a member of the Virtual Library of Virginia (VIVA) Consortium, which is made up of 39 state-assisted colleges and universities, 32 private or not-for-profit colleges or universities, and 6 additional educational and research institutions in the Commonwealth of Virginia. VIVA's mission is to provide cooperative and cost-effective access to library and information resources to libraries serving the higher education community in the Commonwealth of Virginia in an equitable fashion. Radford University enjoys many related benefits of being a member of VIVA such as cost-effective, consortial purchasing and utilizing efficient interlibrary loan (ILL) arrangements within the state. We also make frequent use of other free ILL lending groups such as LVIS (Libraries Very Interested in Sharing, an OCLC no-charge resource sharing agreement with 2,700 libraries participating).

Our library comprises seven departments, including Access Services and Collection and Technical Services. We have a long history of interdepartmental collaboration. Hierarchically we are a fairly flat organization, which in many ways leads to closer connections among disparate staff members. This means we often work directly with one another as opposed to communicating through a supervision hierarchy. However, we have occasionally come to realize that we do not have an official written procedure for a process. With numerous staff changes over the last few years, it has become apparent that some standard procedures were done out of habit, rather than by prescription, and we could improve upon some of those processes to better serve our patrons. The library employees are generally divided between librarians who hold an MLS and are administrative/professional faculty members and classified staff members. For the purposes of this section, library employees will be referred to as staff.

There have also been changes related to our materials budget. Some years, we have been given one-time money to supplement that budget. For over six years our base materials budget has been flat while serial inflation rates have continued to increase. Generally, we estimate inflation rates to be 5% for databases and 6% for journals. This means that we must move money from the monographs budget in order to pay our continuing resource commitments. Over the last two years, we actively reviewed and canceled serials whose usage did not justify their cost. We also negotiated pricing with vendors to be able to continue some subscriptions.

In 2012 we implemented an e-book demand-driven acquisition (DDA) plan, more commonly known as patron-driven acquisition (PDA), to help ensure that increasingly precious funds were spent in the best way possible. DDA will be discussed later in this chapter. We also noted a trend toward increasing ILL borrowing, and we began to wonder if we could leverage these changes to the library's advantage. While we were trying to bring down our overall spending, we were also trying to focus our spending more on "just in time" purchases instead of "just in case" purchases to meet the needs of our patrons. The ILL Purchase on Demand (POD) Project was a good way for us to save money by purchasing books instead of interlibrary loaning them while providing our patrons with what they were looking for in a timely manner.

INTERLIBRARY LOAN

McConnell Library's Interlibrary Loan (ILL) Unit is part of our Access Services Department. We have two employees dedicated to that area's work—a resource sharing librarian and a resource sharing specialist. Three other access services staff members have been cross-training in ILL for a couple of years but have primary responsibilities in other areas of the department.

We utilize ILLiad for resource sharing. In the last five years our borrowing has averaged 4,558 per year; lending has averaged 6,793. We are almost always a net lender at year's end.

COLLECTION DEVELOPMENT

The Collection Development (CD) Unit is part of the Collection and Technical Services (CaTS) Department. We have two employees—the collection management librarian and the collection assistant. The collection assistant is responsible for a wide variety of duties that include assisting with collection assessment projects such as compiling collection data for analysis by the Collection Development Committee (CDC). The collection assistant is also responsible for routine collection development duties such as selecting titles to be replaced in the collection. The CD Unit is responsible for selecting material, as are the members of the CDC. The Monographs Unit handles the actual ordering and processing of monographic material. We have a third employee in the CD Unit whose primary responsibility is to serve on the CDC as a selector. The CDC is an 11-member committee of librarians who select resources for the library. They are considered selectors or library liaisons. The library liaisons have teaching and research faculty counterparts assigned in each department, whom we refer to as faculty liaisons. The faculty liaisons send requests to the library liaisons to make final purchasing decisions.

Once these purchasing decisions are made, all monographs to be ordered are sent to the three-member Monographs Unit, which performs acquisitions duties and places requested orders. It should be noted that serial subscriptions are voted on by committee.

YBP, branded as GOBI Library Solutions, is the chief supplier of print and e-books to McConnell Library, and library selectors use “GOBI,” their customer-facing interface, to conduct searches for titles and place firm orders. The library has fine-tuned its approval plan over more than a decade of evolving needs through YBP. GobiTween is a service provided by YBP to streamline collection development within a group or consortium. McConnell Library uses it as part of a collaborative collection development initiative with VIVA.

McConnell Library has an unmediated e-book DDA plan based on its approval plan for all subject areas. YBP adds DDA titles to the DDA pool automatically and purchases are triggered by patron use. Library selectors are able to manually add DDA-eligible titles to the DDA pool on a title-by-title basis.

TURNING PROBLEMS INTO OPPORTUNITIES

As noted earlier, we became aware that we lacked documented procedures in various areas. One of these areas involved collaborations between ILL and CD. Elizabeth (Beth) Johnson, head of Access Services and Student Engagement, and Alison Armstrong, collection management librarian, and their staffs worked together to remedy some of these issues.

We started at a good place—excellent communication and working relationships, and a tradition of ILL staff notifying the CD staff of subject areas or titles of frequent requests. However, there were no established parameters for such notifications, nor procedures to guide CD in purchasing these unfilled requests. Typically, when ILL could not fill requests, patrons were encouraged to explore other avenues, such as seeking reference assistance to find other material on chosen topics, or to consider personally purchasing titles we could not supply.

Alison and Beth identified three areas in which we could build a stronger resource delivery program, then arrived at the following goals:

1. Consider permanent acquisition of materials when it is less costly to purchase than to borrow.
2. Add specific procedures to CD’s process of purchasing material that is frequently requested by ILL patrons.

3. Utilize ILL's service point position to identify gaps in the collection.

It has always been important to us to share information among our coworkers and with the library as a whole. We received a great deal of support. However, we, and others, also shared a few concerns:

- Change! We were talking about starting to share the direct responsibility of delivering materials into patrons' hands. What a relief to find that our coworkers were more than willing to try this new service method with us.
- We were also concerned about shifting the cost of ILL to CD, especially since our materials budget had not been increasing. We kept in mind that for titles we purchased there were additional costs beyond just the price of the book. However, we saw this as a way to meet our patrons' needs in a library landscape that is shifting more toward collection development that is "just in time" as opposed to "just in case." ILL is an avenue for us to hear what our patrons are wanting, and this gives us the opportunity to be more responsive.
- Would these new procedures add to turnaround time and staff costs in CaTS? Many of our coworkers were in agreement that any endeavor that helps deliver materials to patrons more quickly is a good thing.
- A few ILL patrons often expressed a preference for print copies of books; there was concern that CD's preference for purchasing e-books would be a problem for those ILL patrons. We realized that ILL patrons were not alone in this concern, but for many reasons it was necessary to continue following the trend toward e-books for the library collection. However, the format preference of the requestor is always taken into account for purchases, and this practice would continue.
- The library had previous experience implementing an e-book DDA, and some coworkers had been concerned that all of the money allocated for DDA would be spent too quickly. This concern initially was applied to ILL POD as well. Fortunately, initial concerns had abated about DDA and we thought that ILL POD concerns would dissipate similarly.

- What if we ended up with materials we do not want? While attending a North Carolina Library Association Resources and Technical Services workshop, Alison learned that if the material was cheap or very niche, some North Carolina institutions' ILL department used a purchase card, bought the material, and gave it to the patron with no expectation of it being returned. Other libraries in NC ordered material through the acquisitions department and it was treated as ILL material until the patron returned it. At that point, the library liaison reviewed the material to determine whether it should be kept by the library. However, Virginia state laws prohibit Radford University from doing something similar. Anything purchased by the university and discarded must be sent to Surplus for the university to sell. So, yes, it was definitely possible that we would end up with materials we did not want, but we would refine purchasing guidelines to avoid this situation.

Goal 1: Consider permanent acquisition of materials when it is less costly to purchase than to borrow

The question had come up time and again over the years—why do we pay more to borrow some books than it would cost to actually purchase them? Our ILL Unit has never set a cap on spending for borrowing. As always, the goal was to meet patrons' needs. But could we continue to meet this goal while also being more fiscally responsible? It was time to resolve this issue. Some changes over the years made it the perfect time for us to collaborate on this project. Print book pricing is now lower and e-book pricing is slowly coming down as well. In addition, the turnaround time for purchases is much faster than in the past. We are able to add e-books to our catalog faster than we would be able to borrow a title, and print titles could be received quickly, too. Investigating purchasing as opposed to borrowing now made more sense for both print and e-books. Our use of DDA allowed us another avenue to acquire e-books. A concern voiced by ILL staff on a regular basis was the fact that patrons requested material that they never picked up. This was a concern for the CD Unit since the hope was that a request would mean the title would be used at least

once. By focusing on books, we felt they were more likely to be used by the requestor. If the patron wanted an e-book it meant that if an e-book was DDA eligible, we could provide access without paying for it unless it was actually used. This was an ideal situation given our budget.

A quick literature review revealed no national guidelines for POD through ILL.¹ It was, however, fairly common practice for collection purchases to stem from patron requests, either within or outside the structure of ILL, and it is a driving force behind how we currently do collection development.

We began by examining two years of data on the costs of borrowing physical books from other libraries. The cost averaged a bit more than \$16.00 per book in 2011 and 2012. While that average is significantly lower than the standard amount of \$35.00 that we estimate per book purchase, it does not include staff time. In addition, some titles are much more expensive to borrow than others are, so there was an opportunity to reduce costs. We also considered that we could generally deliver purchased materials into our patrons' hands more quickly than we could with borrowed materials.

We realized a side benefit would be filling even more requests than usual. For example, during this same time period, ILL was unable to fill an average of 65 requests per year for various reasons, including lack of holdings, lack of current availability, and the owning library's lending policies. Perhaps we would be able to purchase some materials that were not available for borrowing and thus improve our request fill rate.

Considering these factors, we decided that an appropriate threshold for ILL POD requests would be \$20. In other words, if we could not borrow an item from a free lender and determined that it would cost \$20 or more to borrow it from another lender, ILL would submit the title for purchase consideration.

As a quick trial project, the ILL staff began tracking certain pieces of information. We were interested in print book requests that would cost \$20 or more to borrow and recorded the following details:

- Title and author
- Other identifying information (edition, ISBN, etc.)
- Lowest available cost to borrow (noting that lower-cost

lenders may not have been able to supply specific titles at our patron's time of need)

Interestingly, during this two-month trial period, 0 titles were determined to cost \$20 or more to borrow. However, a further retrospective review of two years of data showed us that there were 268 requested titles not available from VIVA or other non-fee-charging institutions, averaging approximately 11 titles per month. Of those titles, 88 of them cost \$20 or more to borrow—3 or 4 titles per month.

One thing we had learned in our research was that ILL-POD is not necessarily a guaranteed money-saver, as it can cost more in staff time to purchase through POD than it would to borrow through ILL, particularly for print books. For example, Bucknell University determined that it takes a minimum of three circulations of a POD item to consider that purchase a cost-saving measure.² So, in the interest of saving staff time (which equals money), we decided to limit searches for lenders to five at a time and utilized the ILL staff's extensive experience with searching for materials and knowledge of the lowest-cost lenders. The amount of time it took to identify borrowing costs was negligible and therefore not considered in this project. While keeping the format preference of the requestor a top priority, it is also important to keep in mind that the cost of a print book and the cost of an e-book over time are different since the e-book does not require processing (labeling and security stripping), shelving, or the cost associated with it sitting on the shelf. All things being equal, and if the requestor has no preference, an e-book is the better option in terms of overall cost.

Alison created a new CD fund code, ILLP. The P originally stood for "pilot," although since then it has been changed to "purchase." ILLP was designated to fund requests that we could fill more inexpensively (and more quickly) than through the standard ILL route.

We developed the following policy and procedures, considering that the guidelines used by ILL in the pilot project would be used permanently.

Policy

McConnell Library will purchase monographs for our ILL patrons' use under the following conditions:

1. The monograph has been requested through ILL by the McConnell patron
2. It will cost at least \$20 in fees to borrow the monograph from another library
3. It can be purchased for the same amount or less than the ILL borrowing cost (note: Collection Development staff may choose to purchase material costing more than the ILL borrowing cost if considered worthwhile)
4. Or, the monograph is not obtainable at all through ILL

Procedures

ILL staff:

1. Continue to borrow as many items as possible from VIVA libraries or non-charging institutions (LVIS group, etc.).
2. If “free” possibilities are exhausted, determine the costs to borrow from each lender possibility.
 - a. If there are numerous lender possibilities, and it becomes apparent that an item will cost at least \$20 in fees to borrow, there is no need to conduct an exhaustive search of all possible lenders’ costs.
 - b. Every item with a lending cost must have that cost researched before an order is placed through either ILL or CD.
3. If it appears that it will cost at least \$20 in fees to borrow the item, or if the item is not available at all through ILL, contact the CD Unit.
 - a. Email the collection management librarian and collection assistant.
 - b. Provide item title, author, and ISBN (if book), and specific year or version if necessary.
 - c. Provide the cost to borrow the item via ILL.
 - d. Provide our patron’s name and RU (Radford University) ID number. [Please note that this procedure eliminates the need to set up separate purchasing, tracking, and auditing procedures for the ILL Unit.]
4. If a CD staff member purchases the item, cancel the ILL patron’s request and notify the patron that the item is being purchased and that he or she will be contacted soon to pick it up at the front desk.

5. Or, if the CD staff member does not purchase the item, proceed with ILL as usual.
6. Note that there is a spending hiatus between May and June every year; ILL will need to borrow titles during that period.

CD staff:

1. Reply immediately to ILL as verification that the request has been received, and agree to send a final response within 48 hours.
2. Check GOBI, Amazon, and alibris to determine purchase price. If an e-book is available and cheaper, ask ILL staff if the e-book format is acceptable. E-books will be the preferable format for books if acceptable, with priority given to DDA titles that are cheaper than the price of ILL.
3. If the item can be purchased for less than the amount it would cost to borrow it through ILL, notify ILL staff that a purchase will be made.
4. If the item cannot be purchased for less than the amount it would cost to borrow it through ILL, notify ILL staff so that they can proceed with borrowing.
5. Send the order, marking it RUSH ORDER—PRIORITY PROCESS. Include the patron's name and RU ID number.
6. If a request is sent between May and June, an email will be sent letting the ILL staff know to proceed with the loan. E-book DDA titles are the only available format during this time.

Orders staff:

Once the item is received at McConnell Library, priority process it and send to the front desk as usual, along with hold information.

Due to the game-changing nature of this project, assessment was particularly important to us. Alison proposed that the collection assistant would do the following on an ongoing basis:

1. Maintain a list of what items have been ordered through POD
2. Review and weed POD-procured items as needed on an annual basis
3. Track borrowing costs and purchase costs

4. Track time (time between receipt of an ILL order request and processing of the item once received from GOBI, etc.)
5. Track circulation statistics for these titles on an annual basis

Our actual assessment will be described later in this chapter, but overall we were happy with the results. We decided to continue the project with ongoing assessment as long as the budget will allow.

Goal 2: Develop specific procedures for collection development for purchasing material that is frequently requested by ILL patrons

Shortly after implementing the POD project, we decided to formalize the review of items that had been interlibrary loaned multiple times. This would allow CD to do a more systematic review with more structure than in the past. Previously, data were reviewed but for the primary consideration of adding journal subscriptions. Additionally, ILL staff would occasionally alert CD staff about journal titles with multiple requests. Since the budget did not allow for adding ongoing commitments, reviewing monographs for one-time purchases made more sense.

The best way for CD to make decisions about monographs with multiple requests was to do a regular review using certain criteria. This would also help illuminate repeated requests for similar subject areas, in addition to identical titles. These ideas turned out to be another benefit of recent collaborations among ILL and CD staff—our eyes were opened to other possibilities and methods of identifying subject gaps in the collection.

To begin, ILL staff trained CD staff how to utilize ILLiad data to gather information on oft-requested materials. Alison then created a new fund code, ILLR (R for requests), to track ordering. She created a small allocation for ILLR using money from a general fund.

Next, CD reviewed requests in ILLiad from the last four years, focusing on titles with two or more requests. The following data were recorded from this four-year retroactive review:

- Title
- Number of requests
- Publication date
- Print available?

- Print price
- E-book available?
- DDA e-book eligible?
- E-book price

Going forward, we decided that these reviews would continue on a three-month basis. Next, purchasing guidelines were developed. After a review of the titles it was decided that, unlike with the ILL POD project, we would include DVDs and CDs.

An item will be purchased through ILLR if it

- is DDA eligible—in other words, it can be manually added to our DDA collection;
- is a music recording that has been requested three or more times in the last four years and costs less than \$20;
- is a print item that has been requested three or more times in the last four years, costs less than \$150, and appears to be a subject area of interest that will continue in the future and not a current, popular trend; and
- has been requested two times in the last four years, costs less than \$100, was published in the last four years, and is a subject area that will likely be of continued interest to our patrons—particularly if it is of wide, general interest, or inexpensive.

We were very interested in continuing the conversations between ILL and CD. Since CD would be reviewing data on a three-month basis, it was important for ILL staff to continue relating trends they noted during their daily borrowing transactions to ensure that CD staff were aware of them.

Implementation of the ILLR plan resulted in the purchase of 47 monographs from the 386 titles listed in the four-year retroactive review. They were primarily books but included CDs and DVDs as well. In addition to the firm orders, 13 titles were manually added to the e-book DDA pool. There have been an average of 10 titles purchased each year following the initial review. It was interesting to find that, of the 386 titles with more than one request in the

last four years, 51 had been purchased by the library. Whether they were purchased in a different format or after the requests has not been assessed.

Goal 3: Utilize ILL's service point position to identify gaps in the collection

CD staff have learned over the years that formal statistics do not always tell the whole story. It is also known that formal lines of communication between faculty liaisons and library liaisons do not always meet everyone's needs. Discussions at campus events and side conversations at cross-departmental meetings can often lead to information sharing about collection needs, as well as perceived needs, by faculty members. These face-to-face interactions can prove useful in that library staff can learn what we lack, and faculty members can learn what we already have.

Faculty may also have misperceptions of what the library is able to attain. Faculty members at times request to borrow materials through ILL. These materials may contain information vital to the curriculum and collection, and perhaps we would do better to purchase the materials rather than borrow them. Having conversations about what is possible and not possible is important. ILL's position as a library service point makes it a crucial information-gathering and information-distributing source.

Awareness of this service gap occurred as CD staff realized that many of the unfillable requests being sent to their unit from ILL were actually titles that would be appropriate for the academic departments to order. While ILL was already providing information to CD about borrowing trends, or relaying faculty comments about collection gaps, we came to realize that a separate issue might be awareness—that faculty liaisons were not aware that they could have many materials ordered for the library's permanent collection.

The enhanced collaboration between ILL and CD had established a solid means of relaying information on material needs, but this new consciousness added another layer to library procedures. Training for library liaisons was revised, with an emphasis on ways that faculty input can develop the library's collection. This was of particular importance to CD since we have been buying less and focusing more on faculty requests in recent years. We were also conscious of the fact

that many faculty were aware of our budget shortfalls, and we did not want them to use ILL as a way to circumvent the way they would traditionally request that type of material.

WHAT WE LEARNED

While Beth and Alison had developed an assessment plan for the ILL POD when it was conceived, other projects and staffing changes prevented a structured analysis at the one-year mark but the consensus was that things were going well.

Both the ILL and CD units kept lists and statistics. They maintained a quick turnaround for most items, but the actual time from request to fulfillment was not actively tracked. However, the data could be collected and assessed in the future. Overall circulation statistics are kept in the integrated library system but cannot be parsed by year.

ILL fill rates have not increased consistently over time. In the last five years, we have ranged from 23 to 80 unfilled requests each year. With an average borrowing total of 4,558 items over the last five years, this is an unfilled rate of well less than 2%. There are so many factors to consider that it is difficult to determine a specific reason. Assessment of fill rates will continue.

In 2015, the CD Unit began an assessment project that was structured in such a way to meet the parameters of a university-driven assessment plan. This analysis of the program would serve as the tool to determine whether the project should continue as a regular practice.

After the analysis was reviewed, it was determined that the project would continue and will change as needed over time. The CDC had some major shifts in thinking about collection development in 2015. This shift in CDC culture was due to a change in mentality from “collect everything” to “collect what we need.” Another change had to do with how library liaisons approached their budget. For years, many liaisons felt they had the burden of spending placed on their shoulders and it was a challenge to spend out their funds. A shrinking budget meant that they had less to spend and had to be more selective about what they purchased. Since Radford University is not a research institution, our collection does not need to be ready for deep research. Selectors can hold off on speculative purchases and make purchases as

requests are received. Our three goals fit in with that cultural shift well as we narrowed the focus of spending to the point of need. Since the CDC practices scheduled weeding projects, doing a separate weeding project for ILLP titles was unnecessary. The titles will be reviewed according to the prescribed weeding structure for the main collection.

A faster turnaround time for purchased material, particularly for e-books, has helped make the project a success. The library also benefits from the work of the VIVA consortium and projects that allow for cooperative collection development in which we intend to rely more heavily on ILL. There are two main initiatives that will increase ILL use in the future. One is using a four print copies threshold for purchases utilizing GobiTween information. This is for titles that may be of interest but have not been requested. The second is a retention program in which Radford University is participating, in which titles retained by designated libraries that have low use are weeded out in favor of the retention copy within VIVA. This should not impact our POD project, but we may see an increase in titles that we are requesting multiple times and may be purchased later. In these cases, we will not avoid the cost of the purchase but instead defer it. However, the purchase will be based on a trend of usage instead of speculation. It may also mean we push a purchase decision into the next year rather than purchasing a title at the point of publication. This will help us stretch our limited budget and have fewer titles sitting on the shelves waiting for possible use.

Finally, we offer our assessment from 2015, which analyzes the first two years of ILLP and ILLR practices.

COLLECTION ANALYSIS

In 2015, the CD Unit utilized data from March 2013 through September 2015 for both ILLP and ILLR to review which titles had circulated. The hope was to find that the ILLP titles had at least one checkout, presumably by the requestor, and the ILLR would have at least one checkout, thus continuing the trend of use from the ILL requests. The time period chosen was the duration of the project at that point. For the ILLP titles, one would expect the usage to occur fairly soon after the acquisition, while ILLR titles may take

longer to show usage since there was not a direct need being filled for a patron.

CD staff also wanted to determine the effects of the ILLP and ILLR programs on acquiring items needed by our patrons. With VIVA moving toward a more holistic approach to CD and a heavier reliance on ILL, CD staff wanted to determine whether the current practice supported their patrons.

For the ILLP titles, 23 were purchased. Of those, 12 titles were checked out and 11 titles were not checked out. This resulted in 52% of the titles purchased being used at the title level. However, of the 12 ILLP titles that were checked out, 1 had 5 checkouts, 4 had 3 checkouts, and 7 had 1 checkout. So, taken on the whole, there were 23 titles purchased and 24 total checkouts.

For the ILLR titles, 39 were purchased. Of those, 22 titles were checked out and 17 titles were not checked out. This resulted in 56% of the titles purchased being used at the title level. However, of the 22 titles that were checked out, 1 had 5 checkouts, 3 had 3 checkouts, 6 had 2 checkouts, and 12 had 1 checkout. Taken on the whole, there were 39 titles purchased and a total of 38 checkouts.

Putting the assessment findings into context, while ILL titles can only be loaned once, purchased titles have the potential to be checked out multiple times, which gives us a better return on investment over time. Every checkout represents a cost savings for ILL. The CD and ILL staff also recognize that not all ILL requests are picked up by the requestor. One would expect that the rate of pickup from ILL would be fairly close to the rate of checkout by patrons for ILLP titles.

The following are considerations identified as a result of the assessment findings for ILLP and ILLR:

1. Statistics for both ILLP and ILLR titles will increase as material is used. This analysis covered a short time period with regard to evaluating book usage.
2. Review subject areas of circulated materials to identify patterns for ILLP and ILLR.
3. Review subject areas of uncirculated materials to identify patterns for ILLP and ILLR.
4. Determine whether the price point of \$20 is reasonable for ILLP.

5. Add checking GobiTween to see if four copies are available in VIVA that meet our criteria when reviewing potential purchases for ILLP or ILLR.
6. Include cost analysis in future assessments, particularly as we add more DDA e-books for both ILLP and ILLR.

Overall, we started with good groundwork to accomplish a collaborative, ongoing project. The two units had the same purpose of filling patrons' needs with efficiency—we just had different methods of doing so. The structure of the goals allowed the two units to mesh those methods to give us greater efficiency and the ability to be more fiscally responsible. In retrospect, we developed our procedures in a way that made sense so that they can continue as staff change over time and are nimble enough to be adjusted as needed.

Beth and Alison provided leadership throughout the process and relied on the expertise and experience of their staff members. It was important for them to listen to staff and understand and address their concerns, as well as to be able to work together to look at the project in a holistic manner.

WHAT THE FUTURE HOLDS

Overall, we have found that this program has worked well and, above all else, it has led to a more collaborative environment. Often, interdepartmental discussions about titles or trends end up being jumping-off points for other projects. We think there is better communication between our departments in general and that has continued through several personnel changes in the last two or three years. The lines of communication are more open than they had been, which means that staff members are more likely to identify issues or questions in a timely manner and deal with them as they come up. This communication is now standard operating procedure.

It is inadvisable to rely solely on statistics as a marker of success. It is important to keep in mind that one of the benefits to our patrons is perhaps not obvious, at least not to them. We have always prided ourselves on our ILL turnaround time, and McConnell Library is widely known as “the heart of our university.” However, we know

that we have developed cost-saving measures and fine-tuned our collection in numerous ways, which, in turn, means that we are serving our patrons better.

In the future, these projects will continue, as will our assessment processes. There are many options that we will explore to enhance what we are doing with POD and further our assessment. It may make sense to expand these new procedures to considerations of CDs and DVDs. As more time passes, we will have more data with which to analyze and assess the usage of material purchased through ILLP and ILLR.

We may also find ways for the units to collaborate on new projects. As we gradually shift to a collaborative collection development practice within the state, there may be other avenues in which ILL and CD can work more closely to ensure that we continue to serve our patrons in the most efficient and fiscally responsible ways while keeping the future of the library in mind.

ACKNOWLEDGMENTS

We would like to thank Bud Bennett, Jason Shepherd, Anthony Kaseoru, Max Bowman, and Karen Montgomery for their assistance in providing reasoning, data, and cheerful support for this project.

NOTES

1. "Purchase on Demand (ILL Trends & Challenges)," Minitex Interlibrary Loan Committee, accessed July 4, 2017, <http://www.minitex.umn.edu/committees/ill/Tools/Purchase.aspx>.
2. Gerrit van Dyk, "Interlibrary Loan Purchase-on-Demand: A Misleading Literature," *Library Collections, Acquisitions, and Technical Services* 35, no. 2–3 (2011): 83–89, <https://doi.org/10.1016/j.lcats.2011.04.001>.

CHAPTER 11

We Didn't Fear the Reader: Embracing New Service Models With Staff and Patron Input

Daniel L. Huang and Sharon Wiles-Young

INTRODUCTION

As librarians we see much written in our professional literature about organizational change in libraries. In the Lehigh experience of “not fearing the reader,” our library has a long tradition of work ethics and patron-centered values. However, principles by themselves are insufficient without actively building librarian and staff collaboration to develop a customer-centered culture along with supporting workflows. Our library’s leadership endorses that set of values and allows for our organization to have the agility to explore and fulfill those goals.

Lehigh University Libraries serves 5,000 undergraduate students and 2,000 graduate students and about 521 faculty. Lehigh University has two libraries on campus: Linderman Library, the humanities library, which also houses Special Collections and rare books, and E. W. Fairchild-Martindale Library, the science, engineering, and social sciences library. In addition, we have an onsite storage facility, the Library Materials Center. In order to serve this diverse set of facilities and patrons, our vice provost empowers us to work toward meeting the University Strategic Plan and LTS (Library and Technology Services) Strategic Plan goals.

Our story of philosophical change comes during a time of many shifts in Lehigh’s approach to library services. Print collections were being analyzed and moved to increase user space in the libraries and

more collection dollars were being allocated to electronic and digital collections to help reduce the need for more collection space. The use of approval plans and other “just in case” purchasing plans were being reviewed for effectiveness in collection building, so Lehigh’s collection philosophies were in flux. However, even amid such dramatic changes, what did not change was the working ethos of Library and Technology Services at Lehigh University, which has always been to evaluate services for continuous improvements.

Our librarians and support staff focus on the needs of the library user and do their best to understand the rapidly evolving teaching and research needs of both students and faculty. This was recently reflected in the LTS survey, in which campus-wide respondents cited 81% satisfaction with LTS staff courtesy and 85% satisfaction with the circulation desk and access services in general.¹ The service areas with the highest ratings were interlibrary loan (ILL) services and information services, and we wished to keep expanding upon those services. Under the leadership of the vice provost of LTS and with a newly published LTS strategic plan, the Libraries aligned the user survey findings with the strategic plan and strived to enhance our commitment to continuous improvement.

EXPANDING ILL SERVICES

One of the first ideas was to expand ILL services and to think more about how our service models could change or improve. Could the Libraries extend ILL services by collaborating with other library departments to improve customer service? What could change in the ILL workflows and our departmental business processes to increase user satisfaction? At this time, other changes were happening at the Lehigh Libraries. A more user-centered collection philosophy was beginning to emerge as the Libraries examined acquisition expenditures, discussed expanding ILL services, and shifted to more electronic collections. Lehigh’s new acquisitions librarian came from the ILL department and had knowledge of ILL workflows and a deep understanding of the ILL software.

This knowledge of ILL software allowed the Library Technology Team and the acquisitions librarian to rethink the options of library

services. Together they examined the business process of purchasing a title rather than filling an ILL request and the workflow of purchasing titles identified by the ILL staff for known repeat ILL requests. Why would a library purchase a permanent copy based on ILL statistics instead of getting another copy through ILL? What changed in libraries so that an acquisitions workflow could now be applied to an ILL request?

This led to further inquiry on how the lessons from ILL and other frontline service points applied to other aspects of Lehigh Libraries' collection. Should libraries move toward user-identified needs of collections instead of mainly purchasing on the "just in case" model? Are libraries using usage data and ILL statistics data to make purchase decisions? Are libraries soliciting user feedback about collections to make decisions? And are we held back by fear, or what might just be fear of radical thinking, even if the changes made are not particularly radical? Do we adequately empower our staff in addition to our readers? As the reader proceeds through this chapter, the descriptions of some of the changes Lehigh made in Acquisitions, ILL, Technology Services, and Collections will answer the questions posed above. We will give the reader some ideas of possible changes that can be made in library organizations and in business processes without the need to dramatically change organizational structure or roles.

Our ILL services is one of the keystone services in the Access Services Department of LTS due to its patron-centered mission and its responsiveness to addressing the gaps in the Libraries' permanent print monograph collection. The ILL team maintains reciprocal agreements with both local and regional consortia and prides itself in rapid fulfillment of patron requests for ILL print book loans, delivering over a three-year total of 5,600 print book loans via ILLiad and an additional 16,000 ILL loans via the Relais D2D service (under the PALCI consortial ILL service PALCI EZBorrow). However, staff feedback and insight have traditionally affected little in the LTS Acquisitions Department, even if ILL staff were frustrated at repeated requests for the same item (often simultaneously) and their inability to purchase those materials or books that otherwise could not be obtained through ILL.

In 2015, our director of Collections and the director of Access Services both realized more could be done to address those concerns. One affirming statement made was that the Lehigh Libraries should

“encourage faculty to think institutionally about ILL book requests. Have the library buy the books that have demonstrated value to our patrons. And do so in a way that is on par or faster than ILL.”

Additionally, one director stated that “Acquisitions and ILL should work together to leverage their experience and talents so that both departments will deliver better customer service. We need to meet our patrons’ needs and provide permanent access to some collections instead of just relying on ILL.”

PHILOSOPHICAL CHANGE

For narrative reasons, we will explain the philosophical change that took place in our organization as a result of those statements from Libraries leadership. Our experience creating and maintaining the resulting programs are what influenced the codification of this philosophy, which we called the Flipped Interlibrary Loan (F.I.L.L.) model. We realized that Lehigh Libraries was insufficiently leveraging the usage data from our ILL programs to affect collection development. In addition, we relied too heavily on ILL to cover for gaps in the stacks without trying to address them in a way that added intrinsic value to our collection. Nor did we ever fully address the speed and transparency that our users had become accustomed to in their daily lives outside of the library. This made for a natural breaking down of the walls between Acquisitions and ILL, codified in the F.I.L.L. Guidelines:

1. Usage data about materials and the increasing amount of data available for decision-making is evidence for potential collection development.
2. There is an intrinsic value to having permanent access to often-requested materials, especially in cases where temporary access is insufficient.
3. Delivery of materials to patrons must remain at competitive speeds to temporary methods of access to ensure patron trust.
4. Timely communication is crucial to patron relations.
5. Collaboration between ILL staff and acquisitions staff has benefits for collection development.

However, we were at a loss how to build that bridge between Acquisitions and ILL until we found a technology solution. Dan Heuer from Bucknell University used an IDS project–created ILLiad software add-on called the Getting It System Toolkit (GIST) to create a new workflow for acquisition requests to work within existing ILL services to generate, track, and notify users regarding patron-submitted purchase requests.² The GIST add-on also allows for the transfer of requests between Acquisitions and ILL borrowing, allowing for one coherent and flexible workflow that permits both teams to use the same interface to share information and seamlessly transform requests into another type, such as turning a print book borrow request into an acquisitions request and vice versa.³ This combined workflow provided the means for patrons to submit their requests in the already familiar ILLiad web form but choose whether they wanted to have the library borrow or purchase the requested print book.

Using the existing ILLiad infrastructure offered both marketing and implementation benefits. Technology staff were already experienced with using and maintaining ILLiad, which allowed us to quickly install and configure the add-on within a few hours. This also reduced the amount of training in Acquisitions since internal ILLiad documentation and training practices were already in place within the ILL team. Furthermore, the patron user interface and notification system for ILLiad was already popular, so our users were not skeptical of an experimental service since it cohabited the same space with a familiar service. Lehigh has already published an article about its GIST implementation and the technical configuration used to create the Express Purchase workflow, so we will not go into many of the technical details here and instead stick to our focus on staff empowerment.⁴

EXPRESS PURCHASE

Our teams decided to brand the Lehigh implementation of the service under “Express Purchase.” The name intentionally implied speed, under the assumption that users would not use the service to request an expedited purchase of a print book if the delivery time was significantly longer than the typical ILL request of the same

monograph. Initial testing showed that using the Amazon Business and Prime shipping services resulted in a two-to-three-day time frame from point of order to delivery, which was on par with average ILL fulfillment times as cited by staff. The catalogers developed a “rapid cataloging” workflow to prioritize and quickly move the book to the circulation desk. Lehigh’s initial pilot program included only faculty users but added undergraduate and graduate student users as of November 2017.

The hurdle we encountered in developing Express Purchase was subject librarian fear that library users would quickly expend the monograph budget. This fear was not unique to Lehigh nor was the fear necessarily misplaced. The 2014 article by Tyler, Melvin, Epp, and Kreps titled “Don’t Fear the Reader” goes into more detail about librarians’ anxiety over safeguarding their role in the collection development process and guiding the direction of the collection, as well as their fears that patrons might not make good decisions about which books to read. In response, our directors reaffirmed that we had an organizational commitment to fear user input and our values were indeed patron-centered. To further reduce this anxiety, we imposed a price cap per request, limited users to five requests per month, restricted the purchase of textbooks and dissertations, and limited Express Purchase to items published within the last five publication years. But the message from our leadership was clear: We Didn’t Fear the Reader.

The result of the Express Purchase pilot was a system with which a library user could fill out a quick order form in the familiar ILLiad web interface then Acquisitions could order the book via Amazon and receive the package, have Cataloging process the bibliographic record, and have the book ready at the circulation desk shelf within a total of three to five business days. Faculty users in particular loved the service and respected that they had the option to help the library grow its collection versus waiting for a traditional Acquisitions request or asking for yet another ILL request. Our users also appreciated the consistent notifications that were built into the ILLiad interface. This led to trust in the program to provide print books at a speed equivalent to or faster than ILL, giving users a true complementary service to ILL with the advantage of a longer loan period for the user and building value in the Libraries’ permanent print collection.

The program's success has led to the Libraries allocating more funds to the program and utilizing the campus mail system to facilitate office delivery to faculty for both Express Purchase and ILL requests. It was at this point that we began to coalesce this success into the F.I.L.L. guidelines and to inject those ideas into other projects. Express Purchase added value to our permanent collection, took into account reader input, communicated those goals, provided transparency to the acquisitions process, and did so in a way that made patrons feel that their requests were being responded to in a customer service–focused manner.

Lehigh's success with Express Purchase led the library to examine internal statistics and how those statistics reflected the growth of those collections and the libraries were addressing research needs in academia. When we initiated the Express Purchase program, the Lehigh University Libraries still depended heavily on its YBP Library Services (now GOBI Library Services) approval programs for “just in case” purchasing. The 2015 annual review of the Libraries' expenditures and usage statistics revealed some startling revelations. Although our expenditures through YBP were less expensive on a per item basis compared to the Express Purchase program's Amazon expenditures (table 11.1), the actual cost per circulation was significantly lower via Express Purchase when compared to the YBP approval plan (table 11.2). We discovered that in order to build a more efficient and responsive library, our goals went beyond We Didn't Fear the Reader to We Need to Empower the Reader.

We took the time to consider the organizational implications of what we had accomplished with the Express Purchase program. First, we realized that patron requests, and by extension ILL, were crucial

TABLE 11.1 2015 Lehigh University Pricing Study of YBP Library Services Versus Amazon (total cost over 76 purchases)

	YBP Library Services (\$)	Amazon (\$)	Difference (\$)
<i>Cost of Monographs</i>	1,462.28	1,620.00	-157.72
<i>Shipping and Metadata</i>	47.88	29.64	18.24
<i>Total Spent</i>	1,510.16	1,649.64	-139.48
<i>Cost per Item</i>	19.87	21.71	-1.84

TABLE 11.2 2015 Lehigh University Circulation Comparison Between YBP Library Services Approval Plan and Express Purchase

	Approval Plan	Express Purchase	Difference
<i>Cost per Item (\$)</i>	50.76	65.31	-14.55
<i>Cost per Circulation (\$)</i>	320.98	68.73	252.25
<i>Circulation Rate (%)</i>	16.62	91	-74.38

to collection development because the print collection and supporting services must first serve the user above all else, in accordance with the five laws of library science theory. Second, we concluded that along with developing cross-functional collaboration in the organization, we could use off-the-shelf technology to implement new workflow changes. Third, we came to understand that ILL usage was a barometer of patron behavior and that there was value in analyzing those statistics, even if the outcome was reactive to patron use rather than predictive of patron behavior. These realizations helped Acquisitions gain the organizational confidence to move forward with other programs, embracing the concept of We Didn't Fear the Reader, in addition to creating a new collection development methodology that we codified into the F.I.L.L. guidelines.

One of the first practical outcomes was addressing the overall low performance of the YBP approval plans. The previously mentioned study showed that at best those plans yielded a 16.62% circulation rate, but our librarians were uncomfortable with discontinuing those plans out of the concern that users would not be able to find needed books in a timely fashion without prepurchased books on the shelf. Since the Express Purchase program performed well and few requests went unfilled, the librarians were confident that they could finally discontinue those approval plans, with the knowledge that any gaps in the print collection could be filled in a timely fashion by Acquisitions and ILL. By not fearing the reader, the library could do away with predictive "just in case" purchasing and move toward a more user-centered "just in time" model of acquisitions.

If a library user initiated an ILL request and realized that the book was appropriate for the permanent collection, we wanted the user to communicate that valuable information. Express Purchase was

a success and ILL staff loved being able to refer users to the online form so that frequently borrowed items could be formally requested. Circulation desk staff made good use of being able to refer patrons to request books via Express Purchase, allowing them to provide even better customer service. This was our first big step in building a useful and practical cross-functional environment in which ILL and Acquisitions could coexist and work together. Our goals were not solely financial efficiency, using our data and statistics in more inspired ways, speed of service, or raising customer service survey numbers, but to empower our staff to use their knowledge of their daily work to help the Lehigh University Libraries grow a better user-centered collection. We gave a voice to library staff who did not traditionally have input in other parts of the organization by seeing the connections between ILL and acquisitions work and providing both sides with the technology tools to assist patrons without changing their existing positions.

LOGRECO PLAN

Our organization was moving past fearing the reader, but we had not necessarily made all readers come to us with feedback on which titles requested via ILL should be added to the permanent collection. One method in which the Libraries had previously addressed the collection of that data point was via a white sticker on the ILL book, where the user could communicate that intent by circling “Yes.” Both the stickers and Express Purchase worked well for immediate use and reaching out to users in response to their communication of a specific request, but we did not want to rely entirely on user feedback and wished to include usage data to inform our collection development. We sought to create a more holistic methodology to capture the overall patterns of behavior—one that did not solely rely upon voluntary user input. In accordance with the F.I.L.L. principles, we wanted to leverage the usage data even if the patron chose not to communicate the significance of the request and the collection development implications. The Lehigh Libraries had always looked at the ILL data but struggled to do anything large-scale with that information or in a way that linked the significance of that information with other processes and services, whether internal or vended.

Our team reached out to the administration of the Pennsylvania Academic Library Consortium (PALCI) to acquire the consortium's Relais D2D ILL data for Lehigh's usage of PALCI's direct borrowing service (PALCI E-ZBorrow). We also exported the usage data from ILLiad for the same three-year time period (2014–2016). We discovered we were now in possession of approximately 80,000 lines of user requests, with no easy match point between the two data sets, and no way to link together books that we considered the same written work, because even different bindings, editions, and other variances produced ISBN inconsistencies. Much of the ILLiad data lacked proper standardization, further complicating those issues. However, even if we did sift through all that data, we lacked the funds to purchase all of the high-use titles. Even though we didn't fear the reader, we certainly feared the difficulty of sorting through the volume of data generated by our readers.

In 2016, Acquisitions reached out to ebrary (now ProQuest Ebook Central), our primary e-book aggregator vendor, to see if there was an e-book solution for this problem. Our contact person at ProQuest, Michael LoGreco, assembled a proposal: ProQuest would take the PALCI Relais data and attempt to use its proprietary systems to analyze the title and ISBN information and to try to create some standardization from over 15,000 requests. Upon completion, ProQuest would present the results along with a discounted bulk purchase plan.

LoGreco returned to us with the results of his analysis. Of the 15,000-plus requests, upon his elimination of title duplication he found 2,342 unique titles that were borrowed at least once. Of those books, he discovered that 1,933 were borrowed more than once by Lehigh users in the three-year report period. Within those 1,933 titles, Lehigh already had access to 128 of those as subscription e-books and owned 6 as perpetual titles, revealing a possible e-book deficiency within our collections. LoGreco then identified 715 titles that ProQuest could sell on the ebrary platform with a permanent license at a significant discount. We internally titled the resulting contract and collection the "LoGreco Plan."

Upon purchasing the 715 permanent e-books, we decided to not overtly publicize the program but allow for serendipitous discovery

of the titles in the library catalog. In the June 2016 to February 2017 report period, we took a closer look at the usage data of the LoGreco Plan and benchmarked that against our existing and rapidly growing permanent e-book collection selected by Lehigh's subject librarians (110 titles total). Our analysis revealed that of the 715 LoGreco Plan items, 60 were used at least once, accounting for 54.55% of the permanently licensed e-book usage in that time period (table 11.3). Additionally, this accounted for 36.49% of all pages viewed and 39.83% of all pages downloaded in the permanent ebrary e-book collection. We considered these numbers significant since many of the librarian-selected titles were for course reserve, found on recommendation lists, and in response to faculty requests.

Although we considered this to be a successful method of selecting titles and saw high use in comparison to librarian selection, the Lehigh Libraries could not sustain purchasing hundreds of e-books every fiscal year based on speculated use. No matter the data source, means of selection, format of the book, or even the good performance of the LoGreco Plan, we did not want to replace one approval plan with another approval plan. Nor did the LoGreco Plan or other options on the table at the time allow for direct input from the ILL or circulation desk staff.

LoGreco suggested that since ProQuest was already familiar with the data, Lehigh and ProQuest collaborate with ProQuest's new Access-to-Own (ATO) program for e-books through Ebook Central. Lehigh had previously experimented with demand-driven acquisition (DDA) programs for e-books but had limited results with short-term loans (STLs) and acquiring permanent e-books because STLs added

TABLE 11.3 Fiscal Year 2017 Usage of LoGreco Plan Versus Ebook Central Librarian-Selected E-Book Titles

	LoGreco Plan	Librarian Selection	Percentage (LoGreco) (%)
<i>Titles Used</i>	60	110	54.55
<i>Pages Viewed</i>	4,029	11,040	36.49
<i>Pages Printed</i>	4,097	10,286	39.83
<i>User Sessions</i>	281	673	41.75

additional costs on top of the e-book list price. We reached out to LoGreco's colleagues, who explained that the ATO model of e-book acquisition was different from other DDA programs because ATO STL fees act as installments toward an eventual purchase. So for every use of the e-book a cost is generated, but that cost adds toward the list price of the e-book, generating an automatic purchase of a permanent copy once 100% of the list price has been expended.

Further research verified our general assumption that if used by one user, an e-book tends to be used by others. One such example was the Swinburne University of Technology program, which cited 654 ATO-generated permanent e-book purchases in a six-month period, with an impressive 61% rate of reuse after the initial cost generation.⁵ Additionally, the Ebook Central interface provided the ability for any librarian or staff person to do title-by-title selection within Ebook Central. LoGreco and his colleagues further explained that access to Ebook Central ATO e-books could have access opened to the library user within an hour of an ATO title being added to Lehigh's collection for potential STL or ATO automatic purchase. However, we did not want to just initiate another DDA program at Lehigh and instead wanted to build a means of opening up e-book selection to our ILL and circulation desk staff and further develop the cross-functional environment.

To work toward this goal, the Lehigh Libraries used the lessons learned from the LoGreco Plan and Express Purchase programs. The success with the LoGreco Plan had already taught us the benefit of building vendor relationships to help analyze existing user statistics and further showed the power of analyzing ILL usage data, which showed us that the F.I.L.L. principles had merit on an organizational level for building more user-centered collections. Furthermore, the Express Purchase program showed that we could use off-the-shelf technology to implement programs quickly and easily without excessive development time or staff training, while empowering our library staff to assist in the decision-making process. We put those two lessons together and dove into another collaboration with ProQuest, who had both the tools for analysis and a proven e-book interface, but now with the addition of a potentially staff-empowering selection model.

ILL-ATO PLAN

Acquisitions wanted to create a more financially sustainable model of ILL data-based e-book acquisition, so in June of 2017 we asked the ProQuest sales team to take a fresh look at the original PALCI D2D Relais ILL data. Instead of building a traditional DDA profile of titles, we asked ProQuest to analyze and select all PALCI Relais titles that were used more than once and available as ATO e-books. ProQuest's analysis showed that of the 2,342 titles used more than once, 473 were available through ATO on Ebook Central. Our Cataloging Department further examined the results and discovered that 88 of the titles overlapped with other e-book programs, so in total Lehigh added 385 ATO e-book titles to the library catalog. We intend to do further analysis of both ILL statistics and traditional print circulation numbers to further add more ATO titles, including analysis of course reserve lists and addressing our spreadsheets of books missing from the shelves.

This is currently internally titled the ILL-ATO Plan, and we hope to report on its results at the end of the university fiscal year. Although our subject librarians once again feared the reader and that users would immediately rush to generate expenditures on the 385 ATO e-book titles, the fact that the ATO STL model strategically throttled the rate of the expenditures was important in reassuring those fears. The Express Purchase and GIST implementation experience had also helped develop an organizational cultural change: not fearing the reader had its benefits for collection development. With both evidence and reassurances and librarian buy-in, we are launching the ILL-ATO Plan for the fall of 2017.

Our organizational cultural change also included a new respect for our frontline staff, inclusive of ILL and the circulation desk. Since the ILL-ATO Plan allowed for quick turnaround of e-book activation within an hour, we expanded the success of the Express Purchase program and allowed those frontline staff persons to do title-by-title addition of ATO titles to the original 385 e-books. This helps our frontline staff offer a new and exciting method that assists users with obtaining access to e-books in minutes or hours, something that would take days via ILL.

All levels of staff in the library organization are authorized to add ATO titles. We have developed a workflow in which the ATO selector adds the new book to a specific list in the Ebook Central administration portal. In accordance with F.I.L.L. principles of communication and transparency, the selector also sends a standardized communication to the patron via email, enclosing the Ebook Central hyperlink. Since the ILL-ATO Plan handles funds by deducting from a ProQuest deposit account and Acquisitions monitors the expenditures, there is no handling of invoices or order records by librarians or frontline staff, so there is no additional need to expand job responsibilities to include acquisitions duties.

The intent of the ILL-ATO Plan is that both librarians and frontline staff will add ATO e-books regardless of the venue or point of need. This expands on the empowerment from the Express Purchase program, leaving it to the staff person to determine how to utilize this new tool and to do so in innovative ways. However, we did instruct staff on potential uses of the ILL-ATO Plan, including addressing an unfilled ILL book request, serving a user who needs a book immediately and cannot wait for ILL, and adding titles that are popular with patrons. Additionally, we utilize ATO e-books to facilitate access to books on the missing list or if the replacement cost is prohibitive. We are choosing to empower our frontline staff, who already do not fear the reader since they have frontline knowledge of them already, whether they are readers of print titles or e-books.

We find it important to emphasize that the ATO product was not necessarily designed to handle this workflow, but we are repurposing it and applying an off-the-shelf technology for innovative and empowering purposes. But we recognized that the product could be used for something other than its original intent, just like how ILLiad was not originally designed to handle acquisitions requests. However, since we are working “around the product’s design” but working within its capabilities, we had to train our staff and empower them to find their own path whenever an outlier situation pops up outside of a rote ATO request. But most importantly, the message we want you to hear is that we went from a situation in which a frontline staff person would have a patron asking for an item Lehigh did not have access to but the staff person would have to refer the request to a subject librarian, ILL, or

Express Purchase to an empowered frontline staff person who could turn on access to that requested item immediately.

AUTOMATED REPORTS

Concurrent with the development of Express Purchase, the LoGreco Plan, and the ILL-ATO Plan, we experimented with automated reports that combined ILL data with traditional library reports. Our hope was that this would not only help us not fear the reader but also assist us in not fearing the volume of library data generated by our users. Although the Lehigh Libraries uses the Open Library Environment 3.0 (OLE) integrated library system (ILS) and the open source aspect of the software provides for easy data extraction, the lessons we learned from the experience are applicable to any technology environment where library data can be extracted. The choice of ILS is not as important as being able to extract the data in a meaningful way for your organization, since all systems more or less have some means to do so but implementation of that technology varies by organization. Conceptually speaking, by cross-referencing ILL usage data with other library data sets, we were able to leverage known patron behavior to enhance traditional library functions.

Acquisitions reached out to library technology staff to build automated reports, which happened fortuitously with Lehigh's investment into OLE development. We were already building various reports from the ground up, and adding some custom reports on ILL data was a natural extension of that process. Our senior analyst who was already working on OLE, Michelle Suranofsky, helped collate the PALCI ILL data since the Relais technology creates temporary records in the ILS in order to manage circulation, which allows for OLE to generate an ILS-based report that shows usage data. We could not have accomplished this without a technical specialist or other staff member that understood how such systems are interrelated.

We took the F.I.L.L. principle that "usage data about materials and the increasing amount of data available for decision-making is evidence for potential collection development" and guided Suranofsky in creating a PALCI Relais ILL report. This report was designed to

export on a weekly basis any monograph titles that were borrowed more than once. At this point, OLE had already been active for three years, so we had three years of Relais temporary records in the database, upon which Suranofsky ran matches based on the titles, which worked with sufficient accuracy to assure us that most connections between requests were made even if title was an imperfect match point. To limit the size of the report, we only matched on requests in PALCI ILL that were made that same week. As with the LoGreco Plan, the results showed that we were borrowing via ILL many titles repeatedly. Furthermore, many of those titles were already owned in print at Lehigh, revealing a gap in our ability to handle multiple persons needing the same book. This was a gap easily filled by e-books, but we previously lacked any systematic process to analyze ILL data to show that demand. The ILL report helped our librarians realize that internal circulation data from our permanent print collection was insufficient to show the entire overall pattern of use of requested materials inclusive of ILL; however, this new tool helped them make new choices that reacted to patron requests in a more timely fashion than waiting for the fiscal year analysis.

By seeing in near real-time the ILL borrowing trends, subject librarians could make faster acquisitions decisions, allocating resources to print or e-books as they saw fit, with the intent of building a collection more responsive to patron needs. Not only did this weekly report assist our librarians in collection development, but it also alleviated (in theory) some of the burdens placed on our staff with regard to physical ILL book processing.

CONCLUSION

The Lehigh Libraries intends to further extend the coverage of this report to help with other library tasks that are currently relying on an incomplete picture of patron usage patterns. This is not to say that including ILL data completes the picture, but it helps fill in some of the blanks. In accordance with F.I.L.L. principles that ILL data can be useful for assisting with collection development, one such example is our project to match ILL data against our missing item lists in order to discover whether users are requesting items that should have been available in the stacks.

We would like to integrate not only the ILLiad ILL data of our institution but also the ILL and circulation data of other institutions, perhaps creating a data dashboard that shows overall regional usage and scholarly patterns of use. Not only do we want to empower all sides and levels of our organization, but we want to supercharge our librarian colleagues to help their own institution make slam dunk choices, while adding intrinsic value to their permanent collections in accordance with our traditional role of guardians and curators of information.

However, the full extent of these goals may be out of reach since we identified several key weaknesses in library systems and infrastructure, whether vended, open source, or from other sources. For example, even though we were able to use ILLiad and OLE to quickly serve our patrons via Express Purchase, there is no way to link those systems together into one seamless workflow. Off-the-shelf systems can be repurposed for cross-functional tasks, but there remains a gap that can only be filled by either open systems that facilitate true links or vended options that provide that level of interoperability. Our collaboration with Suranofsky has also led to the development of a prototype of a purpose-built acquisitions and ILL collaboration application, tentatively titled Project Wayfinder. Furthermore, there is no coherent methodology that is currently able to be implemented in existing systems to link together the disparate standards between ILL data, ILS, and vended print or e-book acquisition interfaces in a way that creates a standard data object that gives coherence to the similarities between different editions, formats, bindings, and other instances of a book. This limits the ability of any organization to fully embrace feedback from the reader across the myriad of platforms and fulfillment methods.

At the time of publication, no book jobber has stepped up to deliver a competitive option to Amazon Prime for rapid fulfillment of print book requests, even if book jobbers have significant experience with outputting data to library systems. With the decreasing returns in circulation from approval plans and traditional selection, the Lehigh Libraries asks the question, might we actually be at the end of significant “just in case” purchasing? If so, then there is a decreased need for the book jobber and an end to the need for large-scale warehousing of new titles at the point of publication and, alternatively, there is an increased need for a sustainable guarantee for access and purchase of those titles at a speed that meets patron expectations long after the

original date of publication. If Lehigh decides to expand the Express Purchase program, we have to ask ourselves if an expanded program can be supported without a vendor solution that is integrated with our systems and institutional structure. Building just the capability is insufficient if the workflow facilitated by the system does not match the culture and philosophies of a library organization, which vary tremendously by size and nature. Even though we no longer fear the reader, industry solutions have yet to fully capture that shift in library culture. Project Wayfinder is an experiment in bridging these gaps independent of vendor innovation, integrating our Express Purchase acquisitions processes with ILL statistics and automation of certain workflows to reduce staff time, decrease vendor costs, and further improve our service standards.

Lehigh Libraries seized the opportunity of changes in collection philosophies to explore new acquisition purchasing models and new services. It discovered more collections usage data and implemented more consortial e-book collections, and its ILL software and new ILS open source system allowed for integration of acquisitions processes. The time was right to work together under a common goal of providing the best customer service and fully establish cross-functional teamwork. This cross-functional work allowed for the opening of silos from Library Technology to Circulation to Acquisitions to Cataloging, and each team was ready to offer input and implement different workflows. It was time to empower our staff and integrate them into the acquisitions process. Libraries have already been implementing PDA (patron-driven acquisition) and DDA ordering plans and have trusted users to find content, so we decided to extend that philosophy to further encourage more patron participation. Circulation staff have users standing in front of them with demands such as meeting tight academic deadlines, and our users understand the potential and timeliness of ordering online. Libraries need to empower their staff by letting them suggest to the user other service options to fill their needs instead of slowing the process and referring requests on to another staff member. The natural extension of these principles is trusting the circulation staff and others who are dealing with our users to make collection decisions based on those user needs.

The Lehigh Libraries has more data to analyze, more experiments to conduct, and more brainstorming to do. This is all exciting and

challenging work. Even if not all of our changes end up being successful, we always succeed at challenging our staff to be proactive and discover potential positive service changes. We recognize that embracing input from staff always leads to learning something and inspiring new ideas. As leaders we need to make sure we are listening and allowing staff from different areas of the library to weigh in on services. If your organization is fearing the reader, what is your library doing to enhance cross-functional collaboration and to change your philosophical approach to collection development?

NOTES

1. "2016 LTS Client Satisfaction Survey Initial Report," Lehigh University, Library & Technology Services, accessed July 5, 2017, <http://ltsnews.lehigh.edu/node/232>.
2. Daniel Heuer, "ILLiad, GIST, and EBL: How Bucknell University's PDA + DDA Collection Development Model Gives Patrons What They Want, While Saving the Library Hundreds of Thousands of Dollars a Year" (presentation, Charleston Library Conference, Charleston, South Carolina, November 5–8, 2014).
3. Kate Pitcher, Tim Bowesox, Cyril Oberlander, and Mark Sullivan, "Point-of-Need Collection Development: The Getting It System Toolkit (GIST) and a New System for Acquisitions and Interlibrary Loan Integrated Workflow and Collection Development," *Collection Management* 35 (2010): 222–36, <https://doi.org/10.1080/01462679.2010.486977>.
4. Daniel Huang, "Flipped Interlibrary Loan (F.I.L.L.): Putting Interlibrary Loan in the Driver's Seat of Acquisitions," *Journal of Interlibrary Loan, Document Delivery & Electronic Reserves* 25, no. 3–5 (July–December 2015): 61–74, <https://doi.org/10.1080/1072303X.2016.1254704>.
5. Tony Davies, "The Evolution of an E-book Demand-Driven Acquisition Programme at Swinburne University of Technology," *Insights* 30, no. 2 (July 2017): 40, <https://doi.org/10.1629/uksg.354>.

CHAPTER 12

Interlacing Workflows and Untangling Knots: How Acquisitions and Course Reserves Intersect

Hilary H. Thompson and Leigh Ann DePope

INTRODUCTION

Using the University of Maryland (UMD) Libraries as a case study, this chapter explores the ways in which acquisitions and course reserves intersect and describes how these units can develop a stronger partnership and open lines of communication in order to achieve improved operations and customer service in both areas. The authors present four collaborative initiatives undertaken in the past three years, each of which helped the UMD Libraries to reach new levels of service, quality, and/or efficiency.

The University of Maryland, College Park, is the state's flagship public research university. It serves more than 37,000 students (26,500 of which are undergraduates) in 250 academic programs across fourteen colleges and schools. The UMD Libraries include seven libraries on the main campus, a nearby high-density storage facility, and a library at the Shady Grove campus in Rockville, Maryland. Currently, the UMD Libraries supports a collection of 4.6 million volumes, with e-books comprising almost half of the collection.

The acquisition of material for the collection is shared between the Collection Development Department and the Acquisitions Unit, both of which are in the Libraries' Collection Strategies and Services Division (see figure 12.1). Liaison librarians and other librarians with collection funds are responsible for the selection of material, and acquisitions staff members are responsible for purchasing the material

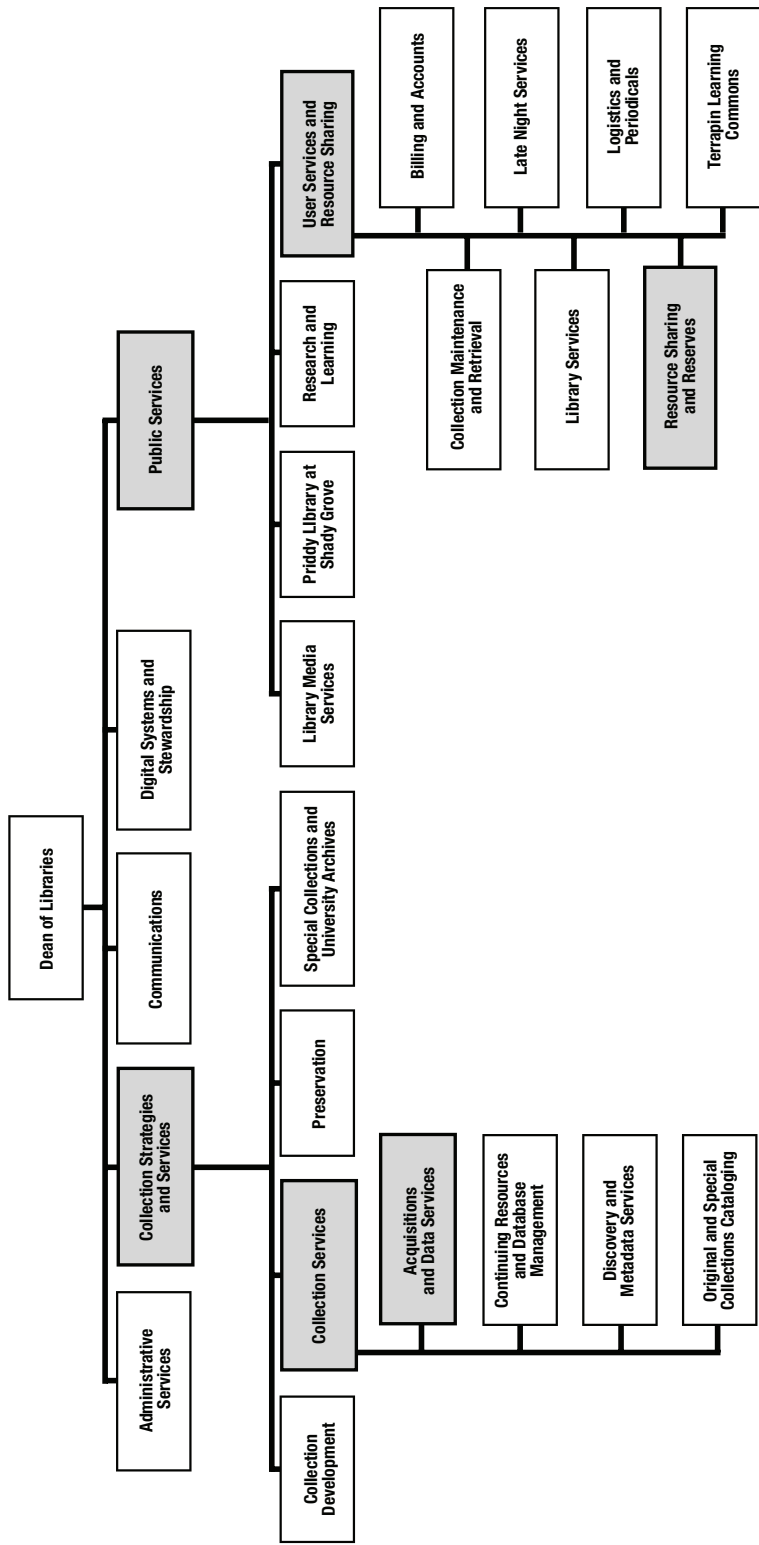


Figure 12.1 UMD Libraries' organizational chart featuring Acquisitions and Reserves.

selected by those librarians. Acquisitions is one of four units in a larger Collection Services Department that manages the purchasing and discovery of all materials across the UMD Libraries. The Acquisitions Unit itself has two teams, the Business Team, which focuses on processing invoice payments, and the Ordering Team, which places orders for onetime-purchase resources. Order requests are submitted either electronically through our book vendor or by a material request form that is printed and signed. Staff members then enter these order requests into the library catalog and send the orders to the appropriate vendors. When material arrives, the Acquisitions Unit processes the shipment by receiving the material into the library catalog, which closes the order.

Course reserves is a suite of services designed to provide students with free and easy access to required readings and other course materials that they need to prepare for lectures, classroom discussions, and exams. The UMD Libraries provides both hard copy reserves (print books, videos, and other items that are borrowed from a library service desk or kiosk) and electronic reserves (scanned or born-digital readings available for online viewing in the university's learning management system, ELMS). Traditionally, items are placed on reserve at an instructor's request; thus, reserves staff partner with instructors to serve students in specific classes. For many years these services have been supported by two or three employees for whom reserves is a primary, but not exclusive, job responsibility, and these individuals have belonged to various units within the User Services and Resource Sharing Department in the Public Services Division of the Libraries. The popularity of course reserves has ebbed and flowed over the past 10 years; it currently provides approximately 5,500 items to 450 courses taught by more than 300 instructors.

Reserves staff have always purchased a relatively small number of print books via Acquisitions, but until recently, there was not much interaction between the two units beyond the occasional order. Organizational and staffing changes in both the Public Services and the Collection Strategies and Services divisions came to a head in mid-2015, creating an atmosphere that fostered greater collaboration between the two units. For the former, change was driven by the reorganization of the User Services and Resource Sharing Department, most notably the merger of interlibrary loan (ILL) and course reserves under the head of Resource Sharing and Reserves; for

the latter, change was driven by the naming of a new head of Collection Development and the hiring of an electronic resources librarian in Acquisitions.

ORDERING BOOKS FOR COURSE RESERVES

Like most academic libraries, the UMD Libraries usually limits items placed on reserve to materials owned by the library or the instructor. Although the Interlibrary Loan Code for the United States does not prohibit placing materials borrowed through ILL on reserve, its explanatory supplement does require permission for such irregular use to be sought by the requesting library in advance,¹ and some consortial borrowing agreements expressly prohibit putting other members' materials on reserve. As a result of such policies, course reserves is highly dependent on the local library's collection, and since instructors often wait until the last minute to submit requests, an efficient workflow for rush-ordering print books and other materials through acquisitions is paramount. Likewise, it is important to maintain an open channel of communication between the two units so that both parties can seek clarification and/or updates related to these rush orders as needed.

Before academic year 2015–2016, rush orders for course reserves at the UMD Libraries were placed using the same hard copy material request form used by the liaison librarians with collection development responsibilities. For reserves staff, placing orders involved copying and pasting data from another library system into corresponding fields in the pdf form, manually completing 12 additional fields, and physically bringing the signed paper form to another floor of the library building (or sending it through interdepartmental mail). Ares, Atlas Systems' course reserves management system, which has been used at the UMD Libraries since 2008, has a Route to Acquisitions function for quickly generating orders, but this workflow had not been set up due to lack of familiarity with making system customizations (in the Circulation/Reserves Unit) and concerns over the acceptability of an electronic signature (in the Acquisitions Unit). Following the merger of course reserves and ILL in September 2015, a renewed interest in Ares customization led to the rediscovery of this feature and desire for

immediate implementation. Our hope was to realize time savings for staff in both units, thereby making required and recommended readings available to students sooner.

The Route to Acquisitions button in Ares imports desired data from the item form into a customizable email template, which reserves staff can edit before sending; the email is recorded as part of the item's history, and the item record moves to a dedicated queue until the book arrives. When setting up this workflow, reserves staff consulted with their counterparts in Acquisitions to ensure that the email template matched both their needs and the state auditor's specifications. All of the bibliographic information auto-populates from the Ares item form through the use of tags in the email template, while invariable ordering information such as the type of purchase, fund code, and selector's signature are hard-coded. The email is sent to a reflector comprising all members of the Acquisitions Ordering Team, eliminating delivery delays and ensuring that the rush order receives immediate attention regardless of who is in or out of the office. Communications about orders do not end when an order is placed, so shortly after implementing Route to Acquisitions, we created an Update Order email template that allows reserves staff to change (or check on) an existing order. This email contains information about the original order, but it has a very distinctive subject line and body so that acquisitions staff cannot mistake it for a new order. Including the Ares item ID on both this email and the original order saves time when acquisitions staff need to provide an update to, or ask for more information from, reserves staff.

Generating the order form and delivering it to Acquisitions now takes mere seconds, as opposed to the old method's average of five minutes. As a result, the new rush-ordering workflow saves approximately 11 hours of staff labor per year. More importantly, newly ordered books are available to students significantly sooner. The average turnaround time for print books ordered for reserves decreased from 33 days in fiscal year 2014–2015 to 21 days in fiscal year 2016–2017 (see table 12.1). The majority (two-thirds) of the turnaround time savings occurred between when the instructor submitted the request and when reserves staff sent the order to Acquisitions. As the authors later discovered, reserves staff disliked performing the slow, repetitive task of completing the pdf form, which led them to put off this task until all others were completed or too many requests had accumulated to ignore. This

TABLE 12.1 Volume and Turnaround Time for Ordering Print Books for Course Reserves, July 2013 Through June 2017

Fiscal Year	Number of Print Books Ordered	Average Time (Days) From Item Submitted to Ordered	Average Time (Days) From Item Ordered to Available	Average Time (Days) From Item Submitted to Available
FY 2014	127	14	16	30
FY 2015	126	16	17	33
FY 2016	143	9	15	24
FY 2017	103	8	13	21

procrastination lasted on average for 12 days, which is astonishing given the urgent nature of these requests. It also prolonged the ordering process for acquisitions staff, as it takes longer to work through a large batch of rush orders than to process individual rush orders received on a rolling basis. There is an extremely important lesson to be learned here: whatever system a library uses to manage course reserves, it is in the users' best interest to seek technological solutions to streamline the rush-ordering process for reserves. Writing a script to transfer information from a reserves database/system into an electronic order form, for example, could accomplish the same goal.

DEVELOPING A TEXTBOOK RESERVES PROGRAM

In 2014, circulation/reserves and acquisitions staff partnered to launch a new enrollment-based textbook reserves program to help relieve the burden of high textbook costs on students.² This program grew organically from an active campus dialogue on textbook affordability, one in which members of the Student Government Association and the UMD Libraries frequently participated.³ In response to these conversations, and in the hope of meeting this emerging student need, the associate dean of Public Services, associate dean for Collection Strategies and Services, and dean of Libraries decided to pilot an enrollment-based textbook reserves program for the 2014–2015 academic year using \$15,000 of unrestricted gift funds. Individuals with the necessary expertise to start this program were identified, and an ad hoc group including the head of Acquisitions, Ordering Team leader,

and Circulation/Reserves coordinator was formed. This group decided to limit the pilot to the university's 50 largest courses based on the amount of gift funds available. The premise of "Top 50 Textbooks on Reserve" worked with the Libraries' limited budget, while also creating a cohesive, high-impact program that could be easily advertised to students and other stakeholders.

This program goes well beyond the service level of traditional, instructor-initiated course reserves, which provides ready access to required and recommended readings to students only after a faculty member submits a request. Now the UMD Libraries is proactively identifying, purchasing, and making available textbooks for the largest courses on campus with little to no faculty involvement. Since textbooks are not usually acquired as part of the Libraries' general collection, acquisitions staff needed to be an equal partner in this new reserves program.⁴ Performing textbook identification, purchasing copies at the university bookstore, and ordering copies from other vendors (as needed) became the purview of acquisitions and other collection strategies and services staff, while processing the textbooks and promoting the program fell to reserves staff. Unfortunately, the program's first iteration was unsuccessful due to long delays in making the textbooks available to students and subsequent low use of these materials. It soon became apparent that textbooks must be available by the first day of class (or shortly thereafter) in order for students to actively use them; and to meet this deadline, a strict timeline for executing tasks, clear selection criteria for identifying materials, a dedicated program lead to monitor the group's progress, and greater communication among members were needed. These issues were all addressed in the second year of the program, resulting in the percentage of Top Textbooks available by the start of the semester increasing from 0% in fall 2014 to 95% in spring 2016 and a nearly 10-fold increase in circulation.⁵

Following a successful fundraising campaign on the university's crowdfunding platform, the Textbook Reserves group was tasked with expanding the program from 50 to 100 of the university's largest courses for the next academic year. Doubling the size of the program within the constraints of the seven-week timeline for making the books available (which is dictated by the relatively late registration dates for underclassmen) posed a significant challenge. To accommodate the expansion, the

Acquisitions and Resource Sharing and Reserves units both assigned student assistants to help with performing tasks that did not scale particularly well, and efficiency-improving technologies were employed to expedite repetitive tasks wherever possible (e.g., using mail merge to generate email notifications for instructors and macros to add data into the reserves management and integrated library systems). Adding more members, including hourly student employees, with varying schedules and different supervisors did raise some additional difficulties related to communication and tracking of work, but these issues were effectively resolved by implementing Basecamp, a proprietary project management software. With Basecamp tasks can be assigned to individuals with specific due dates, automatic reminders are issued via email, tasks can be discussed within the platform (with email alerts sent as needed), and eventually the tasks can be marked complete. Despite some unexpected obstacles (e.g., maxing out the limit on the Ordering Team leader's purchase card when attempting to purchase twice as many books as the previous semester), the expansion of the program was successful: in fall 2016, 93% of the Top Textbooks were made available by the first day of class, and for the first time in the program, 100% of the textbooks were available by the end of the first week.⁶ This accomplishment is a testament to the greatly improved collaboration between the Resource Sharing and Reserves and Acquisitions units.

After a lackluster performance during its first year, workflow refinements, increased promotion, and expanded scope greatly improved the program's usage, resulting in an exponential increase in circulation.⁷ As table 12.2 displays, the number of loans increased from 35 in the first semester to 3,231 in the sixth semester (a 9,131% increase), while the number of unique borrowers per semester increased from 11 to 1,031 (a 9,273% increase). As a result of this increase in usage, the average circulation of Top Textbooks on Reserve now exceeds that of other library collections. With an average of 14.3 loans per item for fiscal year 2017, the Top Textbooks surpass instructor-initiated reserves materials (5.5), books in the popular reading collection (1.2), and items in the general collection (0.1). Return on investment (ROI) for this program can be calculated using potential savings to the student body as gain from investment. If every unique borrower was able to avoid purchasing the textbook they borrowed thanks to the program, the UMD Libraries would have helped students collectively

TABLE 12.2 Circulation Data for the First Three Years of the Top Textbooks on Reserve Program*

Semester	Number of Items	Number of Loans	Unique Borrowers	Average Number of Loans Per Item	Percentage of Zero Use Items (%)
Fall 2014	49	35	11	1	88
Spring 2015	104	214	84	2	67
Fall 2015	126	1,183	357	9	44
Spring 2016	141	1,194	411	8	35
Fall 2016	216	3,186	980	16	25
Spring 2017	253	3,231	1,031	13	30

*This table is reprinted from Hilary H. Thompson and Jennifer E. M. Cotton's 2017 article "Top Textbooks on Reserve: Creating, Promoting, and Assessing a Program to Help Meet Students' Need for Affordable Textbooks" in the *Journal of Access Services* by permission of Taylor & Francis LLC. It has been updated to reflect complete circulation data for the fall 2016 and spring 2017 semesters.

save \$438,221.28, yielding an ROI of 1,015% given that approximately \$39,300 was spent on textbook purchases and labor over the past three years. Due to the high circulation and ROI, the UMD Libraries plans to continue offering this program for the foreseeable future while also expanding its textbook affordability efforts to include supporting instructors in adopting open educational resources (OERs) in lieu of traditional textbooks. Partnering with the university bookstore would aid both efforts, especially in terms of improving the efficiency of textbook identification and tracking faculty adoption of open textbooks. Building a better working relationship in order to pursue joint initiatives related to faculty textbook adoptions is one of Resource Sharing and Reserves' goals for academic year 2017–2018.⁸

VETTING AND PURCHASING E-BOOKS FOR ELECTRONIC RESERVES

In 2013 the UMD Libraries began to investigate e-preferred purchasing and demand-driven acquisition (DDA) programs. With the need to create more study and active learning spaces for students and a construction project to expand the physical building of the main library not feasible, staff responsible for collection management realized

other methods were needed to control shelf space while continuing to add new material to the collection. This recognition, combined with the increasing demand for materials to be available electronically for online classes or those away from campus, made the decision to move to e-preferred purchasing easy. Liaison librarians were notified of this change, and book approval plans were adjusted to default to the electronic format. Yet changing to e-preferred purchasing was not as simple as changing a setting. Other ramifications needed to be considered, including the impacts on the collections budget, staff workflow, and lending to other institutions in our consortia. At the time, the effects on resource sharing were considered less important than the needs of the UMD Libraries itself, so the impacts on the collections budget and staff workflow were weighed more carefully.

The pricing model for e-books makes it possible to select a title based on the potential demand for access balanced against the limited funds in the collections budget. After reviewing the use of the print collection and calculating the projected cost of each pricing model, the decision was made to set the purchase default to the one simultaneous user pricing model. This decision mirrored the traditional purchasing practice of print books. The move to e-preferred purchasing, however, changed the traditional workflow of the acquisitions staff. Staff members were accustomed to receiving and processing physical materials, but e-books are delivered automatically. With the move to e-preferred, it was possible to set up seamless electronic communication between the library catalog, the book vendor, and the link resolver vendor. Orders flow via electronic data interchange (EDI) between the library catalog and the book vendor, between the book vendor and the link resolver, and back. The amount of physical material handled by acquisitions staff on a daily basis substantially decreased, so the material-receiving process was adapted to ensure that e-book orders were filled and made available to users.

The change to e-preferred purchasing affected course reserves too. The growing e-book collection at the UMD Libraries means that the only version of a book we own or to which we provide access may be online and possibly limited, but the Libraries' discovery tool (WorldCat Discovery) and many e-book platforms do not advertise these restrictions. The one simultaneous user model severely restricts electronic access, and unlike with print books, reserves staff cannot control the

length of time that a single user may use this content, making a limited user e-book not suitable for e-reserves. License restrictions also created barriers that limit the usefulness of e-books in a course reserves setting. Around the same time the move to e-preferred purchasing was made, some instructors began expressing a preference for e-books, especially for blended or online-only classes. Reserves staff started receiving occasional requests to purchase new e-books, but they did not know how to handle them. As a result, these requests languished while awaiting consultation from the supervisor.

The inspiration for change occurred when the electronic resources librarian led a workshop on discovering, accessing, and troubleshooting e-books as part of the User Services and Resource Sharing Department's annual training program in the summer of 2015. The head of Resource Sharing, who was preparing to assume oversight of course reserves, learned about the frequency of limited user e-books and raised questions about using these items for reserves, and it was discovered that reserves staff were posting links to e-books within the course reserves module of ELMS without any consideration of whether they were suitable for e-reserves. They were following the same practice for posting links to articles found in e-journals and databases, which generally do not require vetting.⁹ Together, the two librarians decided to establish a new workflow to determine the number of simultaneous users permitted before posting links to e-books within ELMS and for purchasing new e-books as needed, with the goal of eliminating the use of limited user e-books for reserves.

During the fall of 2015, the head of Resource Sharing and Reserves and the electronic resources librarian met to discuss the use of e-books in course reserves. From that meeting, they established a workflow for reserves staff to vet the status of an e-book with Acquisitions. The head of Resource Sharing and Reserves created an email template in Ares so that reserves staff could ask Acquisitions about e-books, and the electronic resources librarian created a reflector to receive these emails. The reflector included the electronic resources librarian, the electronic resources graduate assistant, and two members of the Acquisitions Ordering Team, all of whom were trained to respond to these questions. The email asked the acquisitions staff to advise on how many users can access the e-book at one time and if access for unlimited simultaneous users could be purchased (if not already

available). The email also asked for information on license restrictions regulating its use. Acquisitions staff then researched the e-book and replied via email with the findings. In the event purchase was needed, the head of Resource Sharing and Reserves also created an email template for ordering e-books, a modified version of the pdf electronic resource form that functions like the aforementioned email template for ordering print books for reserves. As a pilot, the two units started using both email templates in December 2015 for e-books requested for the spring 2016 semester.

The pilot was evaluated in summer 2016 to assess its effectiveness. The workflow was found to be beneficial, but slower than necessary. At the suggestion of the Acquisitions Unit, it was revised to empower reserves staff to look up much of this information themselves, thereby minimizing delays that occurred while the two units corresponded via email. Reserves staff members now check an e-book overview chart, initially created by Collection Development, which lists e-book specifications by provider. If the number of simultaneous users for a particular provider varies according to this chart, they use the GOBI add-on in Ares to determine the number of users for that title. Only in cases in which the e-book was not purchased through GOBI or terminology in GOBI describing the use model is unclear do they email Acquisitions for more information. The revised workflow was implemented in August 2016 for the fall semester.

One year later it is clear that vetting e-books improved online access for students. Specifically, it increased the percentage of e-books on reserve with unlimited simultaneous users from 33% in 2013–2014, the academic year before vetting began, to 79% in 2016–2017, the first academic year in which e-books were vetted in all semesters (see table 12.3). Because vetting revealed limited versions and because of the clear workflow for ordering e-books not already in the UMD Libraries' collection, the number of e-books purchased for course reserves grew from a single e-book in academic year 2013–2014 to 30 titles in academic year 2016–2017. The vetting process did not, however, eliminate limited e-books from ELMS. While the number was substantially reduced, some limited e-books were still posted, sometimes due to staff error (33%) but more often due to cloning of unvetted content from a prior course to a new one in Ares (67%).¹⁰ Not addressing cloning as part of the e-book vetting workflow was a significant oversight,

TABLE 12.3 Volume, User Models, and Purchasing of E-Books on Course Reserves, July 2013 Through June 2017

Academic Year	Number of E-Books Placed on Reserve	Number of E-Books Placed on Reserve With Unlimited Simultaneous Users	Percentage of E-Books on Reserve With Unlimited Simultaneous Users (%)	Number of E-Books Ordered for Course Reserves	Percentage of Books Ordered for Reserves That Are E-Books (%)
AY 2014	41	21	51	1	1
AY 2015	94	31	33	0	0
AY 2016	88	50	57	9	5
AY 2017	73	58	79	30	17

but one that was easy to address. This data analysis recently led to two additional changes: first, creating an e-book-specific request form for instructors in ELMS and a routing rule that moves these requests to the new Awaiting E-book Vetting/Purchase queue so that staff remember to handle these differently from other e-reserves requests, and second, tagging limited user e-books used in prior courses so that any cloned items will move to this same queue, rather than automatically posting the existing link to a limited e-book to ELMS. If any of these e-books are requested by an instructor again, the purchase of unlimited simultaneous user versions will be pursued.¹¹

REPORTING E-RESOURCE PROBLEMS

The most recent joint initiative undertaken by these two units is building problem reporting for e-resources into the course reserves workflow. The Acquisitions Help Desk Team investigates and resolves problems related to e-resources and serials that are reported by Libraries staff and users. This team is comprised of staff members from Acquisitions and Continuing Resources, two units within the larger Collection Services Department. Problem reports come to libacqhelp@umd.edu by library staff. These reporting methods all generate tickets in SysAid, the trouble ticketing system used by several departments in the UMD Libraries, where they are assigned to acquisitions and continuing resources staff for resolution.¹²

In December 2016, the head of Resource Sharing and Reserves created an e-resource problem report email template in Ares that imports citation information from the Ares item and sends an email to the acquisitions help desk reflector, thereby creating a ticket in SysAid. This workflow was inspired by and mimics what resource sharing and reserves staff use for reporting e-resource problems while processing ILL requests in ILLiad. Rather than drafting an email or manually completing an online form, resource sharing and reserves staff can report the problem without leaving the ILLiad or Ares client; this process involves a mere click of a button followed by minimal typing—namely, to describe the problem encountered. These emails include ILLiad transaction numbers and Ares item IDs to ensure that the ILL request/reserves item in question can be located quickly once a member of the Acquisitions Help Desk Team replies.

Reserves staff have generated two e-resource problem reports from Ares since its creation, one reporting a link directing to the wrong e-book and one for a broken link to an e-journal article. Both tickets were resolved by the Acquisitions Help Desk Team within two hours, and appropriate action was taken in Ares shortly thereafter. Though reserves staff encounter fewer e-resource problems than their ILL counterparts (who generated 43 problem reports in the same period), having this workflow in place ensures that e-resource problems are reported and resolved in a timely and efficient manner so that content required for class can be made available to students as quickly as possible. Recent retraining efforts for resource sharing and reserves staff related to problem reporting should improve both the quality and quantity of e-resource problem tickets sent to the Acquisitions Help Desk going forward.

BENEFITS AND CHALLENGES OF COLLABORATING

Our experience expanding collaboration between the Acquisitions and Resource Sharing and Reserves units at the UMD Libraries reveals both the benefits and challenges of interdepartmental collaboration. Each undertaking was unique and involved a different combination of staff members from within the two units, but common themes related to the ups and downs of partnering with another work group emerged.

The most obvious benefits to collaborating are achieving improved efficiency and customer service. Collaboration enabled us to improve and expand the number of services offered under the umbrella of course reserves without expanding the Libraries' workforce; in other words, it allowed us to make more items available to students sooner and with fewer barriers to access with no additional staffing costs. Noteworthy results from the aforementioned initiatives include reducing the turnaround time for books ordered for course reserves by 12 days, building a textbook collection whose average circulation is nearly three times that of instructor-initiated reserves, and substantially reducing the posting of limited user e-books to the university's learning management system—all of which have likely contributed to the increase in the average use of items placed on reserve over the past three years (see figure 12.2). These achievements were obtained by leveraging individual expertise to resolve problems, allocating new duties to align with existing ones, and, perhaps most importantly, by partnering with fellow workflow experts.

Both acquisitions and course reserves are centered around production-oriented activities: moving items or requests through a

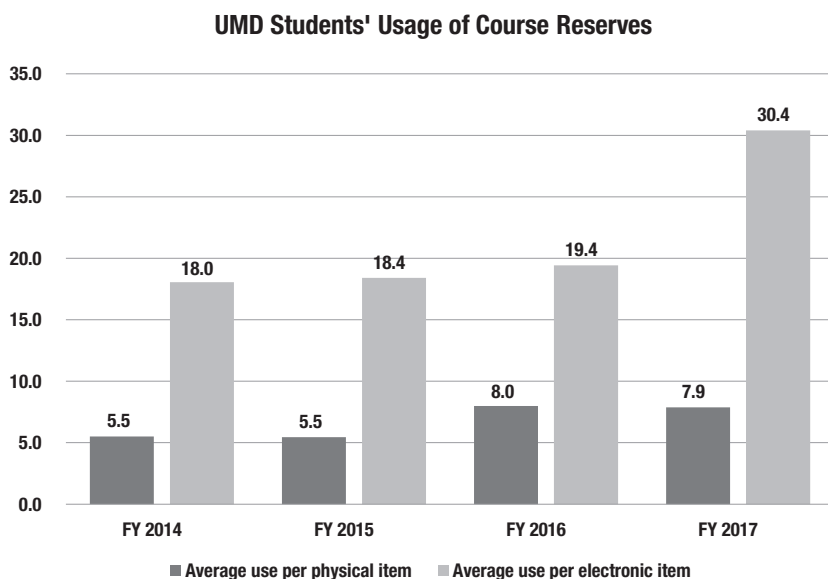


Figure 12.2 UMD students' usage of course reserves, July 2013 through June 2017.

specific workflow or series of workflows where multiple actions are performed, often by different people, with the ultimate goal of getting them from point A to point Z as quickly and accurately as possible. As such, efficiency should be a shared value for both units, creating fertile ground for collaboration and mutual support for ongoing process refinement.¹³ When two efficiency-minded units collaborate, members of one unit may be able to recognize inefficiencies that have been overlooked by the other. Even in forward-thinking workplaces, employees can fall into the trap of believing that a task must be done in a particular way because it has always been done that way (or because presumed system limitations will not permit anything else). Fresh eyes can bring new insight, and simple questions can spark reconsideration of the status quo. Such was the case when the Acquisitions Unit suggested that reserves staff begin looking up the number of simultaneous users for e-books in GOBI themselves rather than sending an email. This suggestion led to the discovery that there was an Ares add-on for GOBI that enabled reserves staff to look up these items without leaving the client. Additional training for reserves staff was required, but the end result was time savings for both units and the customer.

The manifold benefits of collaborating do not necessarily make partnership easy. Cross-department communication can be fraught with minor obstacles and frustrations. Two units may use different language or terms that have to be explained to other staff members; schedules may not align when determining the best time to hold meetings or move forward on a project; and each unit may have differing expectations regarding the use of communication tools, such as email and organizational calendars. Supervisors and project leads should always be on the lookout for emerging communication problems and proactive about resolving them. Two excellent examples of turning a communication failure into a communication success are implementing Basecamp for managing the Top Textbooks program and creating the Update Order email in Ares in response to an incident when a reserves specialist tried to use the Place Order email to modify an existing order, thereby generating a duplicate order and creating confusion for the Acquisitions Ordering Team. When undertaking a new shared project, we recommend taking the time to develop expectations for communication at the onset, then revisiting and revising throughout the life of the project or partnership as needed.

Information silos represent another significant barrier to cross-departmental collaboration. Mechanisms will need to be developed for sharing information such as the number of simultaneous e-book users and licensing terms. Breaking down these silos can be a challenge but, if successful, can transform a barrier into a benefit by building channels for sharing information and developing more knowledgeable, well-rounded library staff. For instance, knowing more about e-books and their various user models enables reserves staff not only to provide more reliable e-reserves but also to help users encountering problems accessing e-books during their shifts at the library service desk and while covering the Ask Us! chat service. Likewise, consulting reserves staff on collection development decisions brings to light potential issues meriting consideration. Together with flexibility, this willingness to learn is essential for collaborative projects to succeed. Fortunately, the staff in both our units were very open to learning from one another and embraced the inherent change that stems from greater cooperation and workflow integration.

CONCLUSION

The rapport between Reserves and Acquisitions today is very different from what it was in 2014. Collaborating on these four initiatives has strengthened relatively weak, preexisting ties into a robust working relationship. Interlacing workflows and partnering to untangle knots greatly increased the intersections of the two units, and this interdependence has continued even after the initial projects were completed. Reserves staff members cannot post e-books, order hard copy items, or provide textbooks without the aid of Acquisitions, and we work together to resolve problems related to e-books and other e-resources for our users. The result is not only the better execution of existing tasks and services; working together has also inspired new ideas for future partnerships. For instance, the authors are interested in embarking on a joint endeavor to promote best practices for posting content to ELMS via liaison librarians and the university's learning technologies staff. Another possibility is exploring the expansion of the Top Textbooks program to include unlimited simultaneous e-books where availability permits. The iterative nature of the

joint projects undertaken by Acquisitions and Resource Sharing and Reserves means that our units will continue to revisit and refine these initiatives over time. Though challenges to collaborating do exist, they are far outweighed by the benefits, and we the authors look forward to expanding the partnerships between our more closely knit units going forward.

NOTES

1. Course reserves is specifically mentioned under Section 4.4, Special Requirements. American Library Association, and Reference & User Services Association, 2016, *Interlibrary Loan Code for the United States Explanatory Supplement*, <http://www.ala.org/rusa/resources/guidelines/interlibraryloancode>.
2. This section is adapted from a journal article written by one of the chapter's co-authors on the same subject, reprinted by permission of Taylor & Francis LLC: Hilary H. Thompson and Jennifer E. M. Cotton, "Top Textbooks on Reserve: Creating, Promoting, and Assessing a Program to Help Meet Students' Need for Affordable Textbooks," *Journal of Access Services* 14, no. 2 (2017): 53–67, <https://doi.org/10.1080/15367967.2016.1257916>.
3. For more information on how the idea for this program developed, see Thompson and Cotton, "Top Textbooks on Reserve," 53–54.
4. For example, only 11% of the Top Textbooks in academic year 2016–2017 came from the general collection, and 34% were newly purchased (the remaining 55% were purchased for Top Textbooks in a previous semester). The prevalence of specifically purchased material presents quite a contrast to traditional hard copy reserves, where 91% came from the general collection and only 5% were newly purchased (the remaining 4% were instructors' personal copies).
5. Thompson and Cotton, "Top Textbooks on Reserve," 61.
6. *Ibid.*
7. The assessment numbers that follow build upon those found in Thompson and Cotton's article, but they have been updated to reflect complete data for the entire 2016–2017 academic year.
8. Despite initial hopes of working closely with the bookstore to identify and order Top Textbooks, the bookstore's current involvement is

limited to serving as our primary vendor for obtaining these materials. For more information on our first failed attempt to partner with the bookstore, see Thompson and Cotton, “Top Textbooks on Reserve,” 56. Recently, new overtures have been made related to sharing data on faculty adoptions, collaborating to increase faculty adoptions submitted to the bookstore, and customizing the faculty adoption form to reflect use of open textbooks and library licensed e-resources. Time will tell if this collaboration proves successful.

9. Reserves staff do need to be aware of licenses that prohibit deep linking from within a learning management system, such as the restrictions imposed by Harvard Business Publishing, but limited access to e-journal content is not normally an issue.
10. The cloning functionality in Ares allows reserves staff to batch copy items from a prior or current course to a new course, and the system posts cloned items for e-reserves to ELMS automatically without review by reserves staff. While this functionality is very beneficial, it may result in lingering inconsistencies following a substantial change in policy or procedure.
11. As a result of these workflow modifications, 100% of the e-books placed on reserve in fall 2017 permitted unlimited simultaneous users, thus achieving the original goal set by the authors in December 2015.
12. For more information about how SysAid is used by the Acquisitions Help Desk at the UMD Libraries and the types of problems reported, see Rebecca Kemp Goldfinger and Mark Hemhauser, “Looking for Trouble (Tickets): A Content Analysis of University of Maryland, College Park E-Resource Access Problem Reports,” *Serials Review* 42, no. 2 (2016): 84–97, <https://doi.org/10.1080/00987913.2016.1179706>.
13. Alternately, should this value not be shared by one of the two units in a particular organization, collaborating may encourage respect for efficiency to develop in the other unit.

PART 4

Collaborations Between Acquisitions and E-Resource Management

EDITED BY ERICA A. OWUSU

Electronic resource management is a complex and often nonlinear process that involves the routine resource discovery, selection, license negotiation, and acquisition of materials followed by maintenance tasks such as renewals, license agreement organization, collection management, and access activation. These activities are varied and can be complicated to manage at one library let alone at the consortial level with multiple libraries. Collaboration and goal coordination are key to creating a successful electronic resource acquisition and management workflow.

This section includes case studies and best practices for implementing and managing electronic resources using different methods and tools from investigation to procurement at the individual library level to the consortial level. LeAnne Rumler and Maurine McCourry outline the process they take to collaborate and coordinate the implementation and maintenance of their electronic resources from discovery to access in “Electronic Resources: Deliberation to Delivery.” Denise Garofalo and Vivian Milczarski give an account of how their Collection Development and Systems Librarians worked together to introduce, expand, and deliver electronic resources to their library users in “Collaboration or Collusion: When Acquisitions and Systems Join Forces.” In “Collaborating Across Divisions: A Case Study in Electronic Resource Management,” Darren Furey, Pamela Morgan,

and Sue Fahey address how several libraries in a university system deal with the historical inefficiencies in their electronic resources workflows by adopting new workflows after implementing a new LSP. Finally, in “Collaborating on Electronic Resources Acquisitions Through Our Unified Library Management System Implementation,” Moon Kim, Jennifer Rogers, Tyler Rogers, and Wendolyn Vermeer detail their approach to centralizing the consortial electronic resource management process using shared platforms and resource collection strategies for their various member libraries. Overall, this section offers substantial evidence, collaborative experiences, and best practices that will assist all types of libraries in implementing and delivering electronic resources to their respective constituents.

CHAPTER 13

Electronic Resources: Deliberation to Delivery

LeAnne Rumler and Maurine McCourry

INTRODUCTION

Mossey Library serves the faculty, students, and staff of Hillsdale College, a small, private liberal arts institution in south central Michigan with a professional staff of 5 librarians, a support staff of 5 additional full-time employees, and approximately 35 part-time student employees. Responsibility for acquisitions is split between the two of us, with monographic, or firm order, acquisitions being handled by Maurine, and serial, or continuing order, acquisitions being handled by LeAnne.

As at any small institution, the librarians at Hillsdale have responsibilities encompassing a variety of activities not seen in the job descriptions of librarians at larger institutions. In addition to acquisitions, Maurine's duties include monographic collection development, cataloging, and management of the library's integrated library system (ILS), while LeAnne's include serial and electronic resource management and collection development. We are each assisted by our own small department of full-time and student staff. Both of us deal regularly with personnel issues, contract negotiations, and budgeting. As part of the library management team and members of the Hillsdale College faculty, we partner with the teaching faculty to develop the library's collections in support of the curriculum. In cooperation with our professional colleagues, we collaborate on a daily basis on acquisitions, workflows, user experience assessment, and special projects,

all with the ultimate goal of keeping the needed resources available to our users at all times.

The process of adding electronic resources to the Mossey Library collection is a decidedly collaborative business, involving all of the professional staff to some extent, but relying especially on cooperation between the two technical services librarians. Our goal here is to describe each step in the process of acquiring and implementing access to new electronic resources, detailing how each of our two small departments relies on the other for continuity throughout the process. The acquisition cycle of a new electronic resource at our library consists of the following steps: first contact, investigation, trial, evaluation, purchase, and acquisition. Each of these steps in the process involves collaboration and cooperation and could not be completed without participation by staff in both departments. In the following sections, we explain how we have come to work together on a cohesive, efficient, and effective process for providing electronic resources to our users.

FIRST CONTACT

The process begins with the first contact with a potentially useful electronic resource. LeAnne receives email, snail mail, and phone calls from vendors promoting new products on a daily basis, and vendor representatives make regular in-person visits as well. College faculty members may request resources directly through LeAnne as they become aware of new products or realize a need for a product they have used elsewhere. Requests for electronic resources are occasionally added to requests for monographic materials sent to Maurine. The need for a resource may also be discovered during a reference interview with a student or faculty member. Lastly, conferences attended by librarians and faculty are a source of possible new and unique acquisitions.

The majority of new resource information comes from vendor sales representatives. Good salespeople know both their products and their target market. They do not waste time by presenting resources that are not applicable to the coursework and/or research needs of our institution. However, not all salespeople do their homework, and we are frequently presented with products that would not be useful

to our community, or which duplicate resources to which we already subscribe. Developing a relationship of mutual trust with salespeople is an important safeguard against this sort of wasted effort. Evaluation of new products can be a long and involved process, and having a trusted contact can be invaluable. That point of contact can also be the conduit to other departments, such as technical support, saving us from scrolling through pages of corporate contact lists when questions arise. At Hillsdale, the relationships LeAnne establishes with the sales and service contacts often facilitate Maurine's communication with the same vendor's technical support staff.

On first contact, many resources can seem essential, especially when presented by an eager salesperson and packaged with a flashy demo site, glossy promotional material, a list of prestigious universities subscribing to the resource, and tempting introductory pricing, or when requested by a faculty member convinced that the resource is vital to his or her research or instruction. It falls to us to parse through the shiny layers to establish how appropriate each resource is for our institution and how well it would support our curriculum and the needs of our faculty and students. It requires our collaboration to investigate the possibilities and problems that a resource may bring. The evaluation of a new product involves thorough examination of each component: the vendor, the product, its cost, its delivery platform, the required licensing, and more. It requires cooperation, communication and coordination, and working with each other extensively, as well as with other interested parties.

INVESTIGATION

A salesperson may introduce an electronic resource that offers content valuable to faculty and students, but the corporate structure behind the salesperson and the resource is equally important. Vendors must be reliable, accessible, and comprehensive. Product and technical support are crucial components of any potential vendor's corporate structure. Both Maurine and LeAnne depend on and expect direct access to support on all vendors' websites. The delivery of the electronic resource content can be a single-source URL or part of a vendor platform hosting thousands of resources—how the content is delivered, and how reliably, matter. The hard work of negotiating a

good contract and pricing can be negated quickly when the product website has broken links or missing access. Vendors that do not actively and reliably support their products can quickly turn a resource into a frustrating drain of time and funds.

The work to determine a vendor's reliability may be as simple as referencing prior experience with the vendor's other products. If the college has had successful dealings with other products from the company, there is little more to be done to determine the likely stability of the resource. However, if the vendor is new, LeAnne may work with the other Hillsdale librarians to research the company's reputation.

The cost of a resource is always a significant factor. Like most libraries, we do not work with an unlimited budget, and fitting a new resource into the existing budget usually involves some juggling. A resource proposal with a price tag so large it cannot fit into the current budget will generally end up on a wish list or simply discarded. This initial analysis of the pricing is necessary, but pricing and payment schedules can be negotiated. That work, though, is done only after a successful trial.

TRIAL

After the initial investigation of a resource, a trial is generally the next step. The timing of trials can be a bit complicated. For most resources, we try to offer a trial when faculty and students are available but not too busy to poke around in a new, unfamiliar resource. The beginning, middle, and end of semesters are usually busy times on campus, and squeezing a monthlong trial in between can be difficult. Most vendors are generous with the timing of, and limits on, new product trials, so we are usually able to work with them to come up with the best fit for our campus and academic calendar. At Hillsdale, the full professional staff is generally consulted regarding the best time to implement a trial.

Resource records are created in our electronic resources management system for most electronic resources, including trials. The record is designed to provide contact and trial information to librarians and staff and access to users. A clear description of the resource, dates of the trial, and a working link are provided in the public catalog. When

the trial is concluded, the resource record is either suppressed and kept as a record of a negative trial outcome or expanded for permanent addition to the catalog, if the resource is adopted.

The creation of a catalog record for a resource involves significant collaboration between our two departments since providing access both on and off campus is essential. The resource's full functionality can only be tested if remote users are included in the trial. The library's proxy server must be configured to allow the access, and the link provided by the vendor must be altered to route the user through the proxy. The public announcement of a trial cannot be made until Maurine has done the technical work required to ensure expected access.

Communicating the details of a trial to faculty and students will impact its success or failure. Engaging the faculty in the trial process is important, since without their input on and approval of the content and format of a resource, the use will likely be very limited. A resource that has been requested by a faculty member comes with a guaranteed advocate for that resource. A faculty advocate can communicate within and among disciplines, which is invaluable for piquing interest in a trial resource. For those resources that do not have that faculty advocacy, more advertising needs to be done.

There are multiple ways to advertise a trial resource, and advertising requires a balance between pushing out relevant information and becoming annoying and being ignored. At Hillsdale, we post the trial on our website home page and place posters in the library, both of which require collaboration with public services staff; we also send emails to any faculty who might find the resource useful. The initial announcement of the trial goes out once the resource record has been established and the links tested for both on- and off-campus use. This email includes a description of the resource, the trial dates, the linked URL, and a plea to the faculty asking that they take the time to investigate the resource and give feedback. A second email is sent near the end of the trial as a reminder that the trial is ending, along with another request for feedback. Feedback may come to any of the librarians, so it is important that they are all aware of the trial and the resource content.

In general, if there is no communication from faculty, it is assumed that there is no interest. It is always gratifying when we do receive emails from the faculty, pro or con, as it removes the guesswork from the process. A successful trial that verifies a resource's need at the

college leads us to the next step in the process: evaluating the purchase agreement and resource license.

EVALUATION

There are many significant factors when considering the cost and value of an electronic resource. The most important question is whether the resource will be used by the faculty and students to further their academic endeavors. If it is determined that the resource would be useful, investigation of the other cost factors is worthwhile. Evaluating the cost of a resource is a wheel with many spokes, and cost does not necessarily indicate value. The following are questions to ask when evaluating product costs: Can the content be used by more than one academic discipline? Is the content available as full-text, citations, abstracts, or a combination? In the case of journals, is the content coverage current, archival, or both? Is the access perpetual or licensed? If perpetual, are there annual hosting or access fees? If the content is licensed, what is the expected annual increase? Is the content available from multiple sources or does it duplicate content held in other formats? Is the content stable, or will content be added or removed?

For the most part, the cost of electronic resources affects only the serials budget, and the decision to expend funds is LeAnne's. Collaboration is required, however, for e-book packages. E-book package title lists change from year to year, and titles are often dropped from the subscription package at year-end. The decision to purchase permanent access for those titles is Maurine's, since those purchases are considered firm orders. Vendors provide a list of titles that are to be removed to LeAnne, who forwards it to Maurine for assessment. To aid Maurine's purchase decisions, LeAnne and her staff pull usage statistics from the vendor's website, if not already provided.

PURCHASE

Once the decision to purchase a resource has been reached, the resource license must be vetted. Resource licenses come in a variety of formats. Some consist of numerous pages of legalese and jargon that require hours to read, reread, and comprehend. Others are a

single page with minimal information. The best licenses fall somewhere between; they include information about the working contract's allowances and limitations but avoid an overwhelming and confusing avalanche of legal terms and clauses. The basic pieces of a contract align with the resource evaluation items: vendor, product, cost, and delivery. Other important elements include rules regarding the use of the resource in interlibrary loan, legacy access to purchased content at the end of the contract, limitations on authorized users and their locations, user privacy safeguards, termination clauses, system requirements for access, usage statistics reporting, and the availability of MARC records. Although many contracts list applicable terms with definitions, any content that is questionable or unclear should be clarified. If any important element of a license is missing, the contract should be amended.

License evaluation and negotiation can be a time-consuming process and may involve collaboration with a number of people, including the salesperson, the library's management team, and the college's legal department, but it is an essential step in the purchase process. A failure to understand a contract that results in misuse of the licensed content can place the library in legal jeopardy. At Hillsdale, final authorization of a license contract is given by our director, but analyzing the language and content of the document is LeAnne's responsibility. LeAnne uses multiple resources, and frequently relies on collaboration with many other professionals, to ensure that no contract is presented for the director's signature without the library's full comprehension of, and agreement with, the contents.

ACQUISITION

When consideration of all aspects of the potential resource is positive, an acquisition is made. The resource record in the catalog is updated from a trial to a permanent record and an order record is attached to accommodate the product order and payments. A bibliographic record is then added if one is not already present.

At Hillsdale, title-level access for content in electronic resources is provided by full MARC records from OCLC whenever possible. The process of maintaining this access is where our greatest day-to-day collaboration occurs. In order to receive these records, LeAnne marks

each new resource as held in OCLC's WorldShare Collection Manager. If the resource has not yet been added to OCLC's knowledge base, OCLC technical support may have to be called, or the vendor may have to be asked to provide data to OCLC. Once records are available for the resource, Maurine edits them globally and adds them to the catalog. When LeAnne loads coverage from Collection Manager, the bibliographic records are automatically linked to the coverage data. This provides links in the public catalog directly from the record for each title to the corresponding content within the resource, as well as links to further information about the resource as a whole, including a list of its title-level contents.

The coverage file updated with OCLC data provides data not only for the catalog links but also for links provided by the library's link resolver. The management of the link resolver is Maurine's responsibility, requiring more collaboration between the two of us. When a new resource is added, it must also be configured in the link resolver settings. Once it is added, testing is done by public services librarians and necessary adjustments are made by Maurine as needed.

Links are also provided in the library's discovery layer via resource coverage data. Because of the structure of the library's Encore Duet system, though, that data has to come from EBSCO's knowledge base. LeAnne therefore has to update coverage not only in the OCLC database when a resource is added but also in EBSCO's. This dual listing also requires that Maurine make changes to the configuration required to accurately display the links provided by EBSCO.

FINAL THOUGHTS

Even though our offices are only a few feet apart and the carpet between them is well worn, email plays a critical part in our ongoing collaboration. The time lapse between the initial look at a new resource and adding the final touches to the purchased content's resource record can be months. The steps to the process are many and the details are often complex. Each time we pass the baton of responsibility or add another piece of information to the resource evaluation, we document it with email. Having that shared email trail to track the stages of the evaluation keeps everything organized and easily referenced. It helps avoid duplication of effort and missed steps.

The collaboration between the two departments continues through the life of the resource at the college. Links break, IP addresses are updated, URLs change, servers go down, content is dropped; the litany of issues that need troubleshooting is exceedingly long when dealing with electronic resources. Public services staff routinely copy both technical services librarians in emailed reports of problems. This enables us to respond immediately to whatever we can fix ourselves and keeps us both in the loop if outside support personnel have to be brought in to deal with the problem.

Hillsdale College's cooperative management of electronic resources continues to evolve as the resources themselves change and grow in number. The collaboration necessary to provide access to the resources that support the mission of Hillsdale College presents many challenges, but it also offers many rewards. Working together to evaluate, launch, and maintain new electronic resources enhances both our college community and our lives as information professionals.

CHAPTER 14

Collaboration or Collusion: When Acquisitions and Systems Join Forces

Denise A. Garofalo and Vivian Milczarski

BACKGROUND

We work in a small liberal arts college in upstate New York. Because we are small (see figure 14.1), each librarian wears many hats in order to keep library services moving forward and along the needed paths. Because our areas of supervisory responsibility—Collection Development and Systems/Technical Services—overlap, we find ourselves often working together to make things function more effectively. Whether it is collaborating on implementing a new service or joining forces to resolve an issue, we partner to find a solution. Therefore, when our library director initiated a project to bring more e-resources into the library, it was only natural that the project was assigned to us.

The Kaplan Family Library and Learning Center at Mount Saint Mary College has a print collection of just under 100,000 titles. When we began this effort for more e-resources, we had about 10,000 e-book records in our online catalog; access for these had been purchased as part of a consortial offering to academic libraries in the region. We also had about 10 records for streaming media titles and 10 more for individual online journal titles. In addition, we subscribed to a number of research databases that also contained e-book content.

Our task was to integrate additional e-resource content from whatever sources we could and to raise student and faculty awareness of the availability of the library's e-resources. We realized our mandate was rather broad and that we would need to narrow our focus in order to ensure we could concentrate on resources that would actually be

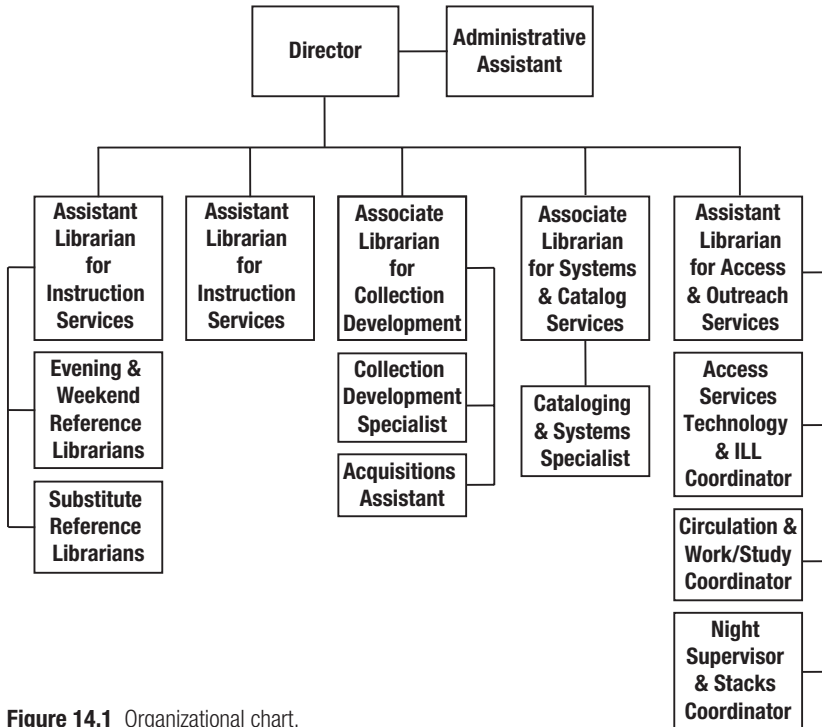


Figure 14.1 Organizational chart.

useful to our campus constituents. Therefore we turned to our colleagues and liaison areas for assistance with this task.

We asked each of our librarian colleagues (there are five librarians at the Mount) for recommendations on expanding our e-resources. In addition, each of us reached out to faculty members in our respective liaison areas for suggestions on e-books, online journals, and streaming media. The faculty either did not use e-resources beyond the online journals we already subscribed to or chose not to use any e-resources. Our librarian colleagues were sympathetic, but they also pointed out to us that our students and faculty did not use the e-books we had, and that probably would not change. Instead, they would probably continue to use either print or journal articles from databases.

Given the nature of this feedback, we met and regrouped. After a lot of discussion and rehashing of our current situation, we decided on a two-stage approach to our task. First, we would investigate sources of streaming media, making sure to focus on those with content that would support our curriculum. Next, we would look at e-book sources,

especially those with a demand-driven approach to acquisitions to lessen the collection development burden on librarians.

STREAMING CONTENT PLANNING AND IMPLEMENTATION

To ensure that our technology infrastructure would not be negatively impacted by increased bandwidth use with our anticipated streaming media venture, we contacted our campus IT department. IT's concerns centered on the misconception that we were looking to host content, something IT was opposed to doing. IT staff did not want to oversee servers full of content. We explained that we would focus on vendors who hosted the content themselves. Our IT department was relieved and assured us that the campus technology infrastructure was sufficient to handle the increased bandwidth use. IT also shared that the department was looking to upgrade networking equipment and software so could provide different levels of access to different services. For instance, our future curriculum-supporting streaming media source could be assigned a higher priority for bandwidth than leisure access resources such as Netflix or *World of Warcraft* would receive.

Now that we knew our technology infrastructure was sufficient for our foray into streaming media, we turned our attention to sources and vendors. Fortunately there were several library conferences on the horizon we planned to attend so that we could network with colleagues and talk with vendors about streaming media possibilities. In the meantime, we did some research and looked into the vendors offering streaming media content to academic libraries.

After a couple of months of research, conferences, and networking, we met again to review all the information we had gathered. One concern we had when looking at the budget and costs was trying to ascertain the interest we might have in streaming media and feeling like it was a complete mystery. We did not want to purchase content and not have it be used, nor did we want to open the floodgates and have such overwhelming use that our finances would not be able to keep up.

One streaming media vendor in particular, Kanopy, sounded appealing. Kanopy had started out as a supplier of DVDs to colleges

and universities in Australia and later became a streaming video supplier, expanding its market to include North America and the United Kingdom. With its focus on documentaries and training films, we felt its content would meet our faculty's needs. Kanopy hosts its content so we would not have to, which was another positive factor. Additionally, the PDA (patron-driven acquisition) model ensured that we would pay only for the films our students and faculty actually watched, yet the entire Kanopy catalog would be available to our campus community to search. We really did not have much discussion as we both agreed that Kanopy would meet our needs. We decided to develop a pilot program to make streaming video accessible to our campus through Kanopy.

The implementation process involved several meetings between us as well as a couple of phone calls with Kanopy. The interface for account management, MARC record downloads and updates, usage statistics, and technical support was clear and easy to use. We were able to get the pilot configured and operational quickly.

Given the user-friendliness of the Kanopy website, we chose to provide access to the campus community and then offer training opportunities. We developed a library research guide for streaming media (available at <http://libraryguides.msmc.edu/stream>) and included information on creating playlists and clips and embedding video into the campus online learning management system. We decided to delay formal training workshops until we had the e-books operational so that we could offer a single workshop covering our new e-resources.

E-BOOK PLANNING AND IMPLEMENTATION

Next, we turned to e-books. We first sought input from our faculty, but we received little response to our inquiries on this topic. Then we brainstormed for a while to fine-tune our thoughts about which approach to use for e-books. Should we purchase e-book versions of some titles that we know are heavily used and offer those in tandem with the print copy? Or should we purchase only the e-book for certain heavily used or reserved titles? Should we purchase access to a collection of e-book

titles essential for a specific curriculum area such as education or nursing? Our discussions kept coming back to the idea of a PDA model for e-books. However, we wanted to keep any e-book PDA project focused, rather than signing up for as many titles as possible, to avoid overwhelming both our campus community and our catalog.

After some discussions with colleagues and various vendors, we turned to EBSCO. We are familiar with EBSCO and its interface, and EBSCO has a PDA model that appealed to us. Without upfront costs, its model allows you to create PDA title lists by specific subject areas and/or by year of publication and to upload the bibliographic records for those titles into the library catalog so that they are accessible to library users. Purchases are triggered by access so that you pay only for the titles that are used. We decided to develop a pilot using the EBSCO PDA model.

We presented the librarians with our plan and asked each of them to create one list of titles in one of their subject areas. The librarians were given a few weeks to accomplish their part of creating the list. After the list was created and reviewed, the bibliographic records were added to the library catalog and the titles made available to anyone searching it.

One aspect that gave us pause involved statistics within our library catalog. We wanted to ensure that our setup for these e-books would provide us with the means to differentiate library catalog searching of the EBSCO PDA e-book titles as opposed to searching of e-book titles we actually had purchased and owned. We decided the easiest way to accomplish this separation was to create a new location for just the EBSCO PDA e-book titles. Statistics could then be aggregated for library catalog searching of e-books, but we could also discern whether our users were searching the EBSCO PDA e-books, our own e-books, or both.

Once we had both aspects of our “bring more e-resources to campus” project underway, we turned to training and marketing. We created a research guide for e-books (<http://libraryguides.msmc.edu/ebooks>) using LibGuides. We had already created one for streaming media on the same platform. Each guide brought together links to the resources and information on how to access and cite them. Brief troubleshooting tips were also included.

FACULTY AWARENESS

At this point, we still had one important issue to resolve: how could we best inform our faculty about the library's new e-resources? We decided to focus our initial outreach efforts around e-books because we felt that more faculty might be aware of them. After all, the library had been offering access to e-books for several years. Although we knew that some might see streaming media as more exciting and enticing, we opted for the e-resource we thought might have more faculty recognition. Our outreach to faculty began with a quick three-question survey on e-books that we distributed at one of the monthly faculty meetings (see figure 14.2). We physically handed the half-page paper survey to each faculty member in attendance, then we stood by the exit with a pen each to ensure that we received as many completed survey forms as possible.

Of faculty who responded to the first question, 13.51% said they used e-books in their classes, while 86.49% said they did not. Of faculty who responded to the second question, 21% indicated they used

A Short Survey on Faculty E-Book Use

Thanks in advance for completing this short survey on faculty e-book use.

1. Do you use the library's e-books in your classes?

Please circle your answer: YES NO

COMMENT _____

2. How do you locate e-books to use in your classes? (check all that apply)

Search the library catalog _____ Search a library database _____

Other (please tell us how) _____

3. Would you like to learn more about the 150,000+ e-books the library has? How?

Select your preference: Through a workshop _____

During an individual appointment with a librarian _____

Other (please tell us how) _____

Figure 14.2 Faculty e-book use survey.

the library catalog and 21% indicated they searched a library database to locate e-books for their classes. The other responses included using a publisher's website, information from scientific journals, and searching Google. Our third question was our way of finding out how best to deliver training on e-resources to the faculty. The majority of faculty preferred learning during a workshop, so we decided to focus our efforts on offering such a workshop.

As a result, we planned a 30-minute workshop that would briefly introduce e-books and streaming media. We decided we would offer the workshop twice, once during lunchtime and once during a designated afternoon activity period when classes were not generally in session. Vivian would handle the e-book part of the workshop and Denise would review streaming media. Our goal was to provide faculty with the best/most exciting features of those e-resources—how to find them, how to use them, and how to integrate them into online courses using our learning management system (branded as eClass). As an added incentive, we would provide light refreshments.

We marketed the workshops through the normal campus channels. The weekly "This Week at the Mount" email blast contained a notice. We sent a message out to the entire campus via our Mount announcement listserv and information was placed on the library web page. A reminder message went out to faculty on the day of each workshop. We were disappointed at our first workshop, which was attended solely by library staff. However, our second workshop had five faculty members attend, who were surprised and excited about the e-resources and their potential. We are planning to repeat the workshops during the upcoming year, and we hope to have a better turnout due to word of mouth.

OUTCOMES

At the end of our "increase e-resource" effort, our catalog records for e-resources had grown from 5,044 e-books to 10,818 and e-journals remained at 10. We have seen a dramatic increase in e-book usage, due perhaps in part to the embedding of e-books within EBSCO search results (one of our most heavily used databases) as well as the addition of EBSCO's eBook Academic Collection, which offers access to over 180,000 e-books in a wide variety of subjects. As of this publication

Video Title
Killing Us Softly – Advertising’s Image of Women (MR)
The Marriage of Maria Braun (MR)
Toxic Sludge is Good for You – The Public Relations Industry Unspun (MR)
Bag It: Is Your Life Too Plastic? (MR)
Are We to Be a Nation (MR)
Feeding Frenzy – The Food Industry, Obesity and the Creation of a Health Crisis (MR)
City Lights (MR)
The Maya and the Popol Buh (MR)
9 to 5 Days in Porn – The Adult Entertainment industry (MR)
My So-Called Enemy – Celebrating Diversity, Interfaith and Intercultural Understanding (MR)
A Trip to the Moon – In Its Original 1902 Colors/The Extraordinary Voyage (MR)
Emotion (MR)

Figure 14.3 Kanopy PDA titles.

Kanopy has been viewed for 8,800 minutes, with documentaries and gender studies the most frequently viewed subjects. The titles we licensed through Kanopy’s PDA are shown in figure 14.3.

Besides the increase in the use of our e-resources, the greatest benefit has been a deepening and reaffirming of the collaborative relationship between the Systems and Collection Development departments. We are working together on a continuation of our effort to increase awareness of, accessibility to, and utilization of a greater variety of e-resources on our campus. Currently we are focusing on using grant funds to bring vendor-provided digital nursing videos to campus. There are some issues involving file hosting, since campus IT policy will not support any type of server for them, and we want to provide an authentication layer on access to this content. However, we hope to have a solution worked out soon. We plan to use our experiences from our initial e-resource effort to improve our marketing and workshop offerings to faculty on the use of this new content. We want

to ensure that our patrons know about the great e-resources we offer and that they have the ability to access them easily. By choosing materials in a variety of formats (Acquisitions) and making them accessible (Systems), we help provide this vital service.

Collaborating Across Divisions: A Case Study in Electronic Resource Management

Darren J. Furey, Pamela S. Morgan, and Sue Fahey

INTRODUCTION

Perhaps more than any other event in the life of a user-focused library system, the migration of the library catalog and discovery service from one vendor's integrated library system (ILS) to another encourages collaboration between technical services units. Many issues arise during a migration, not all of them expected, and they have to be addressed within the culture and context of the organization. Human factors, such as fear of change, unwillingness to learn new ways of doing things, and fear of failure, complicate the already complicated process of introducing technological changes of this scale across a complex organization. Memorial University Libraries (MUL) has just completed such a migration while dealing with budget pressures that, among other things, required our withdrawal from large consortial e-resources packages and left us with a smaller staff complement.

MUL consists of four branch libraries and four resource centers that provide research support to the Memorial University of Newfoundland (MUN) community. The only university in the province of Newfoundland and Labrador, MUN is a mid-sized comprehensive university with a current enrolment of over 18,000 full- and part-time students.¹

The largest branch is the Queen Elizabeth II (QEII) Library. This branch includes the centralized Cataloguing & Metadata and Serials & Acquisitions divisions, which provide services across the MUL system.

The cataloging division uses Library of Congress Classification (LCC) and Library of Congress Subject Headings (LCSH) for most materials and National Library of Medicine (NLM) Classification and Medical Subject Headings (MeSH) for materials purchased by our Health Sciences Library (HSL). It has also been responsible for most of the batch-loading of bibliographic records for e-resources. MUL does not currently participate in a shelf-ready program. The acquisitions division acquires print and electronic monographs for all branches and two resource centers and print and electronic serials for two branches and two resource centers. This division also manages the patron-driven acquisition (PDA)/demand-driven acquisition (DDA) program, including record loading, and oversees ongoing access and troubleshooting for e-resources for all branches. All MUL libraries share the cost of large consortial e-resource packages acquired by Serials & Acquisitions.

The remaining branches and resource centers have staff with acquisitions responsibilities and manage varying levels of acquisitions activity locally. The Marine Institute's Dr. C. R. Barrett Library manages some of its own journal subscriptions but uses the centralized acquisitions division for most serials and all monograph acquisitions. Because of geographic challenges and excessive shipping costs, the Ferriss Hodgett Library on Grenfell Campus acquires 50% of its print books and 100% of the print books for the Harlow, England, resource center through large online vendors. The Ferriss Hodgett Library also manages its own journal subscriptions. The HSL manages its own continuations (serials, standing orders, databases) but turned monograph acquisitions over to the centralized acquisitions division approximately 10 years ago when the volume of print monographs purchased became too low for it to be cost-effective for the HSL to perform its own acquisitions and cataloging functions. The Music Resource Centre (MRC) uses the centralized acquisitions division for all serial and monograph acquisitions. This resource center recently started managing its own audiovisual and sheet music acquisitions. The Education Library manages its own monograph and serial acquisitions. The Labrador Institute Library uses the centralized acquisitions division for some monograph acquisitions.

MUL used SirsiDynix's Symphony ILS for 20 years, from 1995 to 2015. To supplement the limitations of this print-based library system,

MUL also subscribed to a suite of services from Serial Solutions, including Summon, 360 MARC, KnowledgeWorks, and 360 Link. MUL also integrated the open source product Mondo with 360 Link results to provide e-resource license and copyright permissions information directly to our library users. In 2015, MUL adopted the cloud-based Ex Libris Alma/Primo library services platform (LSP) to manage our bibliographic resources and discovery services. The impact has been felt throughout the library system in the form of changing roles and an increase in collaboration across technical services divisions. Workarounds used to manage e-resources in a system built for physical resources have been exposed and, as with any library platform migration, problems with data, records, and workflows have become more obvious and must be rectified so that we can provide quality service to our users and take advantage of the new system's features.

LITERATURE REVIEW

Libraries that were built to manage physical, mainly print resources are now scrambling to cope with the continuously increasing volume of e-resources. It is not just journals that have switched to electronic formats. Monographs, too, are taking on continuations characteristics with subscriptions, licenses, and access fees instead of the one-time, perpetual access cost of a print volume. Monographs now often come in packages of e-books rather than individual firm orders. Polanka paints a picture of the myriad of options now available to libraries trying to buy a book, from license agreements, simultaneous users, and access and platform fees, to perpetual access, embargoes, PDA/DDA models, frontlist and backlist packages, and augmented content through to publishers' willingness to actually sell to libraries versus working through aggregators.²

These changes have meant that infrastructure, workflows, and job responsibilities have had to adjust to manage these resources. "Long-standing workflow practices are not sustainable when working with a decrease in print and an increase in digital resources."³ Similarly, Breeding has observed that in libraries "the allocated staff time, talent, and effort has become misaligned with the character of their collections and services."⁴ Schmidt, Breeding, and Beals all note

the disproportionate allocation of staff and resources to print versus electronic, a symptom of staffing not changing to reflect new purchasing patterns.⁵ Of particular note is Schmidt's description of the stable, linear workflow of print materials with a known end point, versus the volatile, cyclical workflow of e-resources that never ends and must constantly be revisited, a concept also noted by Ohler.⁶

The demands placed on acquisitions staff managing e-resources are notably different and much more complex than on those managing print. As Armstrong notes, many thought that switching to e-resources would save time and money, but in reality the opposite is true as troubleshooting access problems, URL maintenance, and record maintenance take considerable time and effort.⁷ Glasser notes the "dramatic" changes in workload and workflow: "While the significant reduction in print titles decreased the workload for print-related tasks, this decrease was offset by an increased workload related to the acquisition and management of electronic serials."⁸

In addition to changes brought on by the changing format of resources, Breeding observes that libraries traditionally organize themselves to mimic the modules of their library systems.⁹ Thus when a library changes its ILS, the organizational structure of the library impedes staff in making the best use of the new system, and reorganization or a workflow review is often needed. Just as a static library organization is ill-suited to meet the demands of managing new resources or formats, so too are static ILSs unsuited to meet the demands of new resources or applications. Romaine speaks to the challenges of adapting to a new system, specifically Ex Libris Alma, pointing to different terminology, different record structure, different permissions structure, and integration of e-resources management, including management of license information and a pushed task list.¹⁰ Pan indicated that buying an ERMS (electronic resource management system) did not help their workflow, and consequently the workflow analysis consultants they hired recommended "the organization to 'recognize e-resources as the library's mainstream' and 'expand e-resources staff in both number and level.'"¹¹

The literature review reveals that many libraries have undertaken reorganizations. Beals describes transforming their acquisitions unit from format-based to functional-based operations.¹² Miller discusses

how a reorganization of one workflow (gifts) freed up staff for other tasks.¹³ Bracke describes their transformation in terms of a use case coming from a change of ILSs, while Schmidt contrasted two libraries' reorganization using differing workflow models.¹⁴ Stamm described their reorganization from a cataloging perspective and the roles that staff from that division took on in acquisitions.¹⁵ Changes included procedures and workflows, organization of the unit, realignment of duties, promotions, additional training, and cross-training. Benefits included developing a critical mass of staff experienced in a wider variety of tasks, improving synergies among related tasks, flexibility, improved communication, better coordination and consistency, balanced distribution of effort, a changed culture, and improved customer service.

Retraining long-time staff who work confidently in a print environment to work in an electronic environment is not easy. Meagher discusses "spread[ing] the workload across . . . two units to ensure timely processing of traditional materials while allowing individual staff to develop specialized skills as needed."¹⁶ Ohler talks about the staff time involved in managing e-resources and how both the time and the skill set required have increased compared to dealing with print.¹⁷ Collins and Grogg emphasize that "the complexity of [e-resource management] is often underestimated by those who are not deep in the trenches."¹⁸

These complexities include the lack of physical items to trigger processes, e-journals that change publishers, URLs, and/or titles with little to no notice, the compilation of usage statistics, more complex and time-consuming record keeping, developing a means to store and make accessible both administrative and licensing information, and working across multiple systems to manage the data.

Historically, technical services workflows for physical resources worked "very much like an assembly line, with discrete steps that required little interaction beyond simply passing the material along to the next station. Silos existed between departments, resulting in little interaction and a territorial mentality that would often create a feeling of hesitation toward collaborating to facilitate problem-solving."¹⁹

Both Kowalski and Cromity define library silos and discuss examples of silo mentality and the barriers to breaking them down.²⁰ They

list characteristics of silo mentality as including departments isolated from one another; rigid hierarchies; lack of communication, wasting time “asking around”; lack of information sharing and collaboration, where workers are left to themselves to discover and track information; lack of documentation, resulting in people relying on notes and memory; no formal ownership of responsibility; and an us-versus-them mentality with a focus solely on one’s own job, whereby “not my job” is a common refrain and where there is no recognition that “a decision or change in one area of the library necessarily cascades to others.”²¹

Pan, Schmidt, and Kowalski all discuss change management processes that can assist in breaking down silos.²² Cromity reports that staff attitudes play a major role in the reorganization of workflow: “Although companies may have increasingly invested in knowledge-sharing software, employees’ attitudes sometimes undermine the effort by unintentionally or deliberately concealing information from their co-workers.”²³ Burris notes that the shift from silos occurred “as common bonds were developed and departments came to realize the collaborative and interdependent nature of their work.”²⁴ Kowalski agrees that one of the biggest barriers to breaking down silos is the lack of information sharing: “It is difficult to work across departments if you do not know who your colleagues are, what they do, or where their interests lie.”²⁵

Collaboration, communication, and information-sharing are key. Mugridge and Burris both give examples of the interrelatedness of all divisions in the library and how managing an electronic collection requires the crossing of traditional boundaries, from acquisitions, cataloging, public services, collection development, access services, instruction services, reserves, and IT.²⁶ Says Ohler, “Many libraries have come to the conclusion that effective e-resource management can only be accomplished by collaborative processes.”²⁷ Cole discusses several examples of failures of communication in the e-resources sphere, including missing titles or collections, title changes, changed activation codes or URLs, expiration dates, poor service, and non-adherence to licensing agreements.²⁸ Troubleshooting e-resources is difficult because “the information needed to solve the problem . . . is usually distributed throughout the organization, held in information silos of paper departmental files, internal departmental spreadsheets,

or external vendor systems for which not everyone has authorized access.”²⁹ Chisman agrees, noting that in their situation, “some sources of information were in people’s heads and not written down in formal documentation.”³⁰

Cataloging divisions have been significantly impacted by the changes that new library services platforms and e-resource workflows have brought. In many libraries, management of bibliographic records for e-resources has moved to acquisitions and serials while the cataloging standards remain the purview of the cataloging division. The traditional understanding of serial records or continuations has changed as e-books and other e-resources become more similar to journals than to monographs. However, as Armstrong explains, “the bibliographic record is more descriptive and so much more important and valuable for e-books than it is for e-journals. Tables of contents are important for books, and there is a clear value in supplying bibliographic records for e-books. There is a greater expectation of the accuracy and detail of bibliographic information for e-books than for e-journals.”³¹

Although mainly referring to serials cataloging, Lebowitz’s discussion of the impacts of outsourcing cataloging, centralization of services, merger of divisions, and the blurring of lines between technical and public services speaks also to the cataloging of monographs in today’s environment.³² She speaks of the need for greater recognition that paraprofessionals are doing higher-level work or work that was once the purview of only librarians while librarians take on more management.

The question of who maintains the bibliographic and holdings records becomes a greater consideration as licensing, packages, entitlements, perpetual access, and holdings become more complex. Outsourcing of cataloging for print resources by the adoption of shelf-ready services in which acquisitions divisions receive both the physical item and its bibliographic record is common. Similarly, bibliographic records for e-books are usually supplied by vendors at the time of purchase. Vendor support for EDI (electronic data interchange) ordering and invoicing are generally tied to the import of bibliographic records.³³ Keeping these subscription-based e-book packages up to date may remain with cataloging divisions and the catalogers’ ability to determine the quality and acceptability of the bibliographic record

or may be transferred to acquisitions divisions that have the detailed knowledge of what was actually purchased in the absence of a physical item in hand. Mismatches often occur for a variety of reasons, as well as incomplete or inaccurate data.³⁴ Indeed, Sapon-White concluded that while vendor records may be provided at no charge, costs are incurred by the investment of staff time and effort to revise those records.³⁵ Problems with the batch-loading of vendor records could be alleviated with better knowledge base data, with Armstrong noting the need for vendors to transmit accurate information to knowledge base providers on behalf of libraries.³⁶

CASE STUDY

In 2015, MUL organized a multidisciplinary committee to implement our new modern LSP, Ex Libris Alma, and its discovery service Primo. Representatives from all major functional areas of the library comprised the committee, including acquisitions, cataloging, circulation, reserves, public services, and IT/web services. Librarians, library support staff, and library administration were all represented on this committee, which was charged with working with Ex Libris to configure our new LSP and to migrate our existing data. The committee's overarching approach was to try to implement our new LSP the way it was designed to work and to avoid replicating inefficient or idiosyncratic processes or workarounds developed through two decades of using our previous ILS. To complicate matters, MUL had a very short implementation window with very little opportunity prior to migration to learn how the new system worked or to clean our data. During the implementation stage, decision-making and problem-solving were performed in consultation with Ex Libris based on the committee members' expertise in their functional areas and on our institutional needs and the perceived needs of our users. Once implementation was declared complete and we became operationally independent of Ex Libris, this collaborative approach to decision-making and problem-solving continued and the committee was reconceived as an LSP management committee.

The implementation of the Primo discovery service and its article citation linking utility, the Primo Central Index, occurred late in

the process without much lead time before our scheduled go-live date and without sufficient advance training. Primo configuration was left primarily to a separate subgroup consisting of public services librarians, the web services librarian, and a cataloging librarian. Regrettably, most of the participants of the Primo subgroup were not members of the larger LSP committee and so they did not have the depth of knowledge regarding Alma implementation decisions or the migrated data that regular members of the larger LSP committee had. Conversely, the regular LSP committee members lost the opportunity to learn about Primo configuration and functionality in a way that would have informed their implementation of Alma, given how integrated the two Ex Libris products are. Fortunately, some of the negative impacts of a separate Primo subgroup were overcome through an iterative consultation process between several of the functional experts on the LSP committee and selected Primo subgroup members.

E-resources were problematic from the start. Our top priority was to ensure user access to all licensed or purchased electronic content. Unfortunately, we did not have a clear understanding of how e-resources were intended to be managed in Alma, how much we could rely on the Community Zone (Alma's shared access e-resource bibliographic knowledge base), or how the Primo Central Index supplied article-level linking and how it interacted with Alma. This led to mistakes such as initially activating too many e-resources available in the Primo Central Index without first understanding how this utility related to acquisitions data in Alma and how the user experience would be impacted. Nor did we understand initially how problematic our migrated data would be. Users immediately experienced difficulty and frustration when trying to access electronic content through Primo, and our public services staff and librarians were overwhelmed with complaints and pleas for help from our users.

Given these issues, Serials & Acquisitions, in consultation with the LSP committee, temporarily set aside any consideration of using Alma's ERMS for managing licenses and related documents and data until we sorted out our e-resource access issues. MUL has never implemented a purpose-built ERMS, so had we decided to implement Alma's ERMS right away, it would have meant starting from scratch to scan paper copies of licenses and to input the required data manually. Already coping with very poorly migrated historical and current acquisitions

data, Serials & Acquisitions would have been hard-pressed to take on this labor-intensive and time-consuming work, which was unlikely to have produced direct measurable impacts for our users. To date we have still not implemented Alma's ERMS, and any future implementation will require a negotiated revised workflow between Serials & Acquisitions and our collections librarians regarding who chooses a vendor when multiple vendors offer the same content and who negotiates price and license terms. Historically, collections librarians have not provided Serials & Acquisitions with comprehensive title lists or adequate descriptions of content when making a purchasing decision, so ensuring that we purchase the intended content and that we have access to all the content we should have access to have always been challenging issues.

Cataloguing & Metadata worked closely with Serials & Acquisitions to learn how to use and apply Alma's electronic collections functionality. While under pressure to solve the many problems with e-resources in our new LSP, members of both divisions experimented to determine a path forward. As we learned more about the availability of e-resources in the Community Zone and about the poor quality of bibliographic records for many of those e-resources, it became clear that we would have to use vendor-supplied, batch-loaded bibliographic records to supplement e-resource collections. A short-lived committee that included acquisitions, cataloging, and public services librarians also had input into this decision. This realization was a big disappointment because during the LSP selection process it was hoped that having access to a shared, centralized, automatically updated knowledge base would significantly reduce the amount of batch-loading and e-resources records maintenance we would have to do in our new LSP.

Before migration and for a short period afterward, Cataloguing & Metadata was responsible for most e-book record batch-loading, the exception being PDA/DDA records. After some negotiation between Cataloguing & Metadata and Serials & Acquisitions, it was decided that Serials & Acquisitions would become primarily responsible for batch-loading records for electronic content. Serials & Acquisitions had the skills to do it and was better positioned to know or to find out which packages and individual titles we were supposed to have access to. Now we have a more direct and seamless workflow for batch-loading bibliographic records. Cataloguing & Metadata provided

Serials & Acquisitions with a normalization process to automatically strip out always unwanted fields upon import. Bibliographic record quality assurance and enhancement remains the responsibility of the Cataloguing & Metadata division.

To gain control of our e-resources and help address user access issues, Serials & Acquisitions worked with Cataloguing & Metadata to impose Alma's electronic collections framework upon all electronic content in our catalog. When our records were migrated from our previous ILS to Alma, each e-resource record was loaded as a discrete entity, mirroring how the records existed in our previous ILS, which did not have an effective architecture for managing groups of records as part of an e-resource package. As well, each e-resource in our previous ILS existed as a physical item with a physical holding and with access provided through the 856 MARC field in the bibliographic record. In many cases, phantom physical holdings were created in Alma for e-resources during migration and these had to be eliminated. Alma's electronic collections framework is separate from its organization of physical holdings. The URL for each individual electronic title ("portfolio") exists either as a stand-alone entity or as part of a package ("collection") and does not rely on the 856 field for access. E-resources that are grouped hierarchically as part of a collection can be managed as a group with options applied at the collection level or the intermediate service level cascading down to each portfolio. To achieve cost-per-use data, Serials & Acquisitions had to ensure that purchase order lines were attached at the correct level of the electronic collections hierarchy, which is another reason that division assumed responsibility for batch-loading of e-resource records.

To implement Alma's electronic collections framework, Serials & Acquisitions had to gather migrated e-resources records together by package and attach them to a collection, which itself had to be created as an entity in Alma. In the course of this work, Serials & Acquisitions consulted with Cataloguing & Metadata to determine, often on a case-by-case basis, whether to activate access from the Community Zone or to bypass the Community Zone and load better quality records from vendors. To provide timely access, Cataloguing & Metadata sometimes had to accept lower quality records than it otherwise would have. Similarly, the HSL often has to accept records without medical subject headings. A complicating factor in this work

was a lack of clarity regarding exactly what resources were available in the Community Zone. The titles of various packages in the Community Zone often differed from what the vendor or publisher called those packages. Unfortunately, we were not always able to rely on vendors or publishers to clarify by supplying entitlement lists and coverage data. Similarly, the number of individual e-resource titles in a Community Zone package sometimes inexplicably differed from the number of titles actually available from the vendor or publisher.

This process of organizing our e-resources allowed Serials & Acquisitions to address another known problem, the lack of differentiation by some vendors between perpetual access e-resources and subscription access e-resources. Through analysis of the migrated e-resource records, it was determined that mistakes were made during the batch-loading process in our previous ILS. In some cases, perpetual access records were overwritten by subscription access records for the same e-book or deleted entirely when the intention was to delete a PDA/DDA record. This problem was particularly acute for titles that were purchased from the same vendor using differing acquisition models, such as one copy being PDA/DDA and another copy being a firm order, where the titles had the same title-level unique identifier and could not be distinguished by the acquisition method. In other cases, rather than replacing an existing record with an updated record, the new version of the record was added to the catalog, creating a duplicate. To solve these problems, Serials & Acquisitions often deleted all existing records in Alma for a given package, retrieved complete record sets from the vendors, and loaded them into Alma within the appropriate electronic collection. Wanting to prevent these errors from happening in the future and recognizing that both divisions may want to extract e-resource records from Alma to manipulate them and then reload them, the two divisions devised a standardized local system of unique identifiers to use as match points. This approach ensures that the record import and overlay process operates without risking the overwriting or inadvertent deletion of perpetual access records. Similarly, to aid user understanding of the type of access available for individual e-book titles, a standard naming convention for the collections was developed that made it readily apparent to users whether a collection provided perpetual access and identified the number of

simultaneous users able to access the resource. A standardized set of notes detail for staff whether or not a collection is static and the date the titles in the collection were verified.

This work to organize our e-resources according to the native structure of Alma was time-consuming and labor-intensive, but it was worth it. The end result was a coherent methodology for managing e-resources that allowed us to address some access issues and provide users clearer information regarding level of access (single-user versus multiuser) and acquisition type (perpetual versus subscription). A by-product of this work was an increase in the number of titles users were able to access, in that old procedures for batch-loading records in our previous ILS had not kept pace with the number of publications being made available by vendors or publishers in various licensed or purchased packages.

COLLABORATION

Collaboration is the process of negotiating a desired outcome, a preferred method for achieving that outcome, and a supportive relationship structured around achieving the outcome. Unlike a silo approach, which can be territorial and insular, collaboration is results-driven and recognizes that expertise and help are distributed across an organization at both the professional and paraprofessional levels. When it came to solving issues related to user access to e-resources resulting from our migration to a new LSP, Cataloguing & Metadata and Serials & Acquisitions were united with support from Library Information Technology Services and the LSP committee to find and implement systemwide solutions.

At the same time, we had to manage and resolve individual one-off problems and complaints from users regarding the new LSP. These complaints were directed to a shared email account accessible to members of the LSP committee. In many cases, problem reports from individual users or staff and librarians at the reference desk were found to be the tip of the iceberg of a larger problem. Monitoring these complaints and working to resolve them as a team was invaluable in learning how Alma, Primo, and Primo Central worked together. It

was through dealing with these problem reports, for example, that the LSP committee learned how powerful the ISSN (both print and electronic) is in Alma as a piece of linking data. Similarly, complaints of incorrect or failed article-level linking allowed us to learn how to parse an openURL to identify bad data, which can then be reported to Ex Libris for fixing. Collaborating to solve these problems distributed not only the effort required but also the knowledge gained. It also brought functional experts together to focus on the same problem, each with a specific point of view and using his or her particular knowledge to inform the whole process.

However, whether we were working on the overall LSP implementation, a large project such as reorganizing e-resources to take advantage of the new native technology, or a single complaint from a user unable to access a particular e-book from off-campus, collaboration was not always easy. It sometimes proceeded in fits and starts as testing and retesting were carried out with a lot of waiting in between. It forced hard choices, such as Cataloguing & Metadata relinquishing primary responsibility for batch-loading bibliographic records for e-books to achieve the agreed-upon desired outcome, which, in this case, was a better user experience. It required personalities that are open to considering all sides of an issue and mature enough to realize that a favored approach of a particular individual to a problem may not be the best overall strategy. Collaboration is a collective approach, the sum of several individual efforts united toward a goal.

Collaboration and change go hand-in-hand. MUL went through a massive change in moving away from an ILS we used for 20 years to a new product with a new approach, including an agile development model that can be difficult to keep up with since changes to the LSP are pushed out monthly. Organizations and people react differently to such large-scale change, some taking the denial and avoidance approach, some embracing change as an opportunity to learn and to do better. Organizations must manage change in ways that foster collaboration, engagement, and inclusivity; otherwise, many people within those organizations will understand change passively as something that is happening to them, something that is being done to them, rather than as a mechanism to actively engage with colleagues to learn, grow, solve problems, and provide better service.

NOTES

1. “CIAP Factbook 2016,” Memorial University of Newfoundland, Centre for Institutional Analysis and Planning, https://www.mun.ca/ciap/Analysis/Factbook/2016/Table1_FactBook2016.pdf.
2. Sue Polanka, “Purchasing E-books in Libraries: A Maze of Opportunities,” in “The No Shelf Required Guide to E-Book Purchasing,” *Library Technology Reports* 47, no. 8 (November/December 2011): 4–7, <https://journals.ala.org/index.php/ltr/article/view/4425/5140>.
3. Laura Newton Miller, David Sharp, and Wayne Jones, “70% and Climbing: E-Resources, Books, and Library Restructuring,” *Collection Management* 39, no. 2–3 (2014): 112, <https://doi.org/10.1080/01462679.2014.901200>.
4. Marshall Breeding, “Balancing the Management of Electronic and Print Resources,” *Computers in Libraries* 34, no. 5 (June 2014): 26, <http://www.infotoday.com/cilmag/jun14/Breeding--Balancing-the-Management-of-Electronic-and-Print-Resources.shtml>.
5. Kari Schmidt and Christine Korytnyk Dulaney, “From Print to Online: Revamping Technical Services With Centralized and Distributed Workflow Models,” *Serials Librarian* 66, no. 1–4 (January–June 2014): 68, <https://doi.org/10.1080/0361526X.2014.879033>; Breeding, “Balancing the Management,” 26; Beals, Nancy, “Transformations of Acquisitions at Wayne State University,” *Against the Grain* 25, no. 2 (April 2013): 30. <https://doi.org/10.7771/2380-176X.6471>.
6. Schmidt and Dulaney, “From Print,” 69–70; Lila A. Ohler, “The Keys to Successful Change Management for Serials,” *Serials Librarian* 51, no. 1 (September 2006): 53, https://doi.org/10.1300/J123v51n01_03.
7. Kim Armstrong, Bob Nardini, Peter McCracken, Rick Lugg, and Kay G. Johnson, “When Did (E)-Books Become Serials?” *Serials Librarian* 56, no. 1–4 (January–June 2009): 130, <https://doi.org/10.1080/03615260802679432>.
8. Sarah Glasser, “Disappearing Jobs: Staffing Implications for Print Serials Management,” *Serials Review* 36, no. 3 (2010): 139, <https://doi.org/10.1016/j.serrev.2010.06.002>.
9. Breeding, “Balancing the Management,” 27.
10. Siôn Romaine, and Jian Wang, “When ERM Met Alma: The Intricacies

- of Content Management in a Shared Consortia Landscape,” *Serials Review* 43, no. 1 (2017): 19, 21, 23, <https://doi.org/10.1080/00987913.2017.1279896>.
11. Denise Pan and Zaana Howard, “Reorganizing a Technical Services Division Using Collaborative Evidence Based Information Practice at Auraria Library,” *Evidence Based Library and Information Practice*, no. 4 (Dec. 2009): 89, <https://doi.org/10.18438/B8PW4F>.
 12. Beals, “Transformations of Acquisitions,” 30.
 13. Miller, “70% and Climbing,” 115–18.
 14. Paul Bracke, “Alma at Purdue: The Development Partnership Experience,” *Information Standards Quarterly* 24, no. 4 (Fall 2012): 16–20, https://groups.niso.org/apps/group_public/document.php?document_id=9925; Schmidt, “From Print to Online,” 65–75.
 15. Andrea L. Stamm, “The End of an Era Builds New Team Spirit: Team Playing at Its Best,” *Cataloging and Classification Quarterly* 30, no. 2/3 (January 2000): 365–68, https://doi.org/10.1300/J104v30n02_13.
 16. Elizabeth S. Meagher and Christopher C. Brown, “Turned Loose in the OPAC: URL Selection, Addition, and Management Process,” *Library Hi Tech* 28, no. 3 (2010): 368, <https://doi.org/10.1108/07378831011076620>.
 17. Ohler, “Keys to Successful Change,” 47–52.
 18. Maria Collins and Jill E. Grogg, “Building a Better ERMS,” *Library Journal* 136, no. 4 (2011): 23, http://lj.libraryjournal.com/2011/03/digital-resources/building-a-better-erms/#_.
 19. Christian Burris, Derrik Hiatt, and Steve Kelley, “The Intersection of Serials Acquisitions, Cataloging, and Electronic Resource Management,” *Technicalities* 33, no. 3 (May/June 2013): 13, <http://hdl.handle.net/10339/38661>.
 20. Meghan Kowalski, “Breaking Down Silo Walls: Successful Collaboration Across Library Departments,” *Library Leadership & Management* 31, no. 2 (2017): 2, <https://journals.tdl.org/llm/index.php/llm/article/view/7202>; Jamal Cromity and Ulla De Stricker, “Silo Persistence: It’s not the Technology, It’s the Culture!” *New Review of Information Networking* 16, no. 2 (2011): 177, <https://doi.org/10.1080/13614576.2011.619924>.
 21. Kowalski, “Breaking Down Silo Walls,” 4.

22. Denise Pan and Zaana Howard, "Reorganizing a Technical Services Division Using Collaborative Evidence Based Information Practice at Auraria Library," *Evidence Based Library and Information Practice*, no. 4 (Dec. 2009): 88–94. <https://doi.org/10.18438/B8PW4F>; Schmidt, "From Print to Online"; Kowalski, "Breaking Down Silo Walls."
23. Cromity and De Stricker, "Silo-Persistence," 176.
24. Burris, "The Intersection of," 13.
25. Kowalski, "Breaking Down Silo Walls," 3.
26. Rebecca Mugridge and Nancy M. Poehlmann, "Internal Customer Service Assessment of Cataloging, Acquisitions, and Library Systems," *OCLC Systems & Services* 31, no. 4 (2015): 228–31, <https://doi.org/10.1108/OCLC-12-2014-0037>; Burris, "The Intersection of," 14.
27. Ohler, "Keys to Successful Change," 53.
28. Louise Cole, "Journey Into E-Resource Administration Hell," *Serials Librarian* 49, no. 1/2 (August 2005): 141–54, https://doi.org/10.1300/J123v49n01_05.
29. Ohler, "Keys to Successful Change," 54.
30. Janet Chisman, Greg Matthews, and Chris Brady, "Electronic Resource Management," *Serials Librarian* 52, no. 3/4 (June 2007): 298, https://doi.org/10.1300/J123v52n03_08.
31. Armstrong, "When Did (E)-Books Become," 135.
32. Faye R. Lebowitz, "Serials Staffing for the Twenty-First Century and Beyond," *Serials Review* 28, no.3 (2002): 195–200, [https://doi.org/10.1016/S0098-7913\(02\)00192-2](https://doi.org/10.1016/S0098-7913(02)00192-2).
33. Ohler, "Keys to Successful Change," p. 57.
34. Chisman, "Electronic Resource Management," 300.
35. Richard Sapon-White, "Notes on Operations: E-Book Cataloging Workflows at Oregon State University," *Library Resources & Technical Services* 58, no. 2 (April 2014): 134, <https://doi.org/10.5860/Lrts.58n2.127>.
36. Armstrong, "When Did (E)-Books Become," 135.

Collaborating on Electronic Resources Acquisitions Through Our Unified Library Management System Implementation

Moon Kim, Jennifer Rogers, Tyler Rogers, and Wendolyn Vermeer

INTRODUCTION

The California State University (CSU) is one of the largest public university systems in the United States, with 23 campuses enrolling 478,638 students in the fall of 2016.¹ The oldest campus, San Jose, was founded in 1857, while the newest addition, Channel Islands, was established in 2002. Enrollment varies greatly from campus to campus. Maritime Academy is the smallest campus in terms of the student population, with 1,107 total enrollment, while Fullerton is the largest campus with 40,235 enrollees in the fall of 2016.² Accordingly, the CSU libraries vary considerably in metrics such as budget, staffing, and collections. For example, in June 2015 Maritime Academy reported a total fiscal year expenditure of \$474,187 with 4 professional staff, 2 support staff, and 37,844 held titles, while San Diego reported total library expenditures of \$10,194,650 with 26.92 professional staff, 54.35 support staff, and 2,595,454 held titles in its collection.³

In addition to supporting a common general education curriculum with CSU-wide standardized learning outcomes, each campus specializes in particular disciplines. As such, the CSU Office of the Chancellor (CO) centrally funds a uniform, core set of electronic resources for the libraries, and each library supplements its collections with the necessary additional resources to support the unique curricular needs of its campus. Despite a myriad of differences in size, scope, and programs, all 23 campuses are joined together by a single unifying imperative: to

educate students. In order to support the charge of educating students and working smarter together, the CSU libraries embarked upon an ambitious project in 2013 to unify their integrated library systems (ILSs) into a single shared platform: the Unified Library Management System, or ULMS.

COLLABORATIVE SPACES: CONSORTIA AND ULMS

Systemwide Digital Library Content/Systemwide Digital Library Services

Acquisitions collaboration across the CSU libraries is coordinated by the Systemwide Digital Library Content (SDLC) group. Initially established in 1989 as Systemwide Electronic Information Resources (SEIR), SDLC is responsible for the central acquisitions of electronic resources that are core or common to its member libraries and is supported by the CSU CO. SEIR used to include what is now a separate but tandem office called Systemwide Digital Library Services (SDLS), which focuses upon maintaining systemwide library information systems including the CSU institutional repository (ScholarWorks). The CO operates both SDLC and SDLS in conjunction with the CSU campus libraries to collectively serve the diverse and growing needs of CSU students, faculty, and staff. SDLC functions as the official consortium of the CSU libraries.

Member institutions are involved in CSU-wide purchasing decisions. Vendors and products are selected based upon a shared collective interest then pursued for negotiations. The main advisory bodies representing individual campuses are the Electronic Access to Information Resources (EAR) committee and the Council of Library Deans and Directors (COLD). EAR “is the committee that identifies resources for the CSU consortia and advises the Council of Library Directors (COLD), which in turn provides advice to the Assistant Vice Chancellor for Information Technology Services on consortially negotiated access to traditional and electronic information resources.”⁴ EAR has a select and rotating membership of predominantly collection development librarians who make recommendations to COLD. COLD is comprised of the dean of each campus and “provides advice

to the Assistant Vice Chancellor for Information Technology Services on access to traditional and electronic information resources, long-term strategic planning, database management, and information competence.”⁵

Southern California Electronic Library Consortium

Another consortium for private institutions sprang up in Southern California around the time of SEIR’s inception. Founded in 1986, the Southern California Electronic Library Consortium (SCELC) has since grown to include 113 member and 230 affiliate institutions across the United States and Canada.⁶ SCELC negotiates significant cost savings on a variety of electronic resources and library services for its members, and libraries pay only for the resources they wish to acquire (plus a small surcharge for the administration of services). In addition to bulk purchase savings, SCELC provides continuing education for libraries through conferences, workshops, and hackathons.

As a part of SCELC’s affiliate program, many CSU libraries have been able to utilize the purchasing power of this alternative library consortium for resources not offered by SDLC. Although the CSU libraries are not direct participants in the strategic direction of SCELC in the same way they are for SDLC, the lines of communication are open between the two consortia, and the libraries certainly communicate with one another about how best to acquire what electronic resources and from whom. Thus, collaborative coordination does occur between the libraries and the two consortia on a regular basis.

ULMS

The realization of a shared library management services platform has been long in the making. SEIR/SDLC has always supported forward-thinking strategic efforts and initiatives on behalf of the system libraries, as evidenced by a systemwide strategic planning document from 1994.⁷ Although this document preceded the explosion of the Internet and its far-reaching impact on information-seeking behavior and access, the system demonstrated remarkable foresight of these new communications technologies and the sweeping changes they would have on the work of libraries: “Successfully establishing a common agenda will require creation of organizational and management

structures which emphasize collaboration on each campus—within all information technology units, among CSU campuses, and with other institutions—to form an interconnected system fully utilizing the combined resources.”⁸

Several CSU libraries’ projects preceded the actual move to a shared integrated library management system. In the late 1990s, a project was developed that would foreshadow collaborative efforts to come. Foreseeing a need for a union catalog, the CSU libraries implemented a common ILS using Pharos, the Horizon ILS software built by Dynix. Pharos was the CSU’s first online public union catalog and was intended to facilitate collection development efforts and resource sharing across the system. Unfortunately, technological barriers, coupled with the absence of a formal mandate and the unpopularity of maintaining holdings in an additional platform on top of OCLC and the local ILS, ensured that the tool never achieved great use. The collaborative charge was again taken up in the form of the Libraries of the Future (LOFT) project, in which six Los Angeles–area CSU libraries developed strategies and recommendations for the CSU libraries as a whole to address the challenges in maintaining and sharing cross-campus collections.⁹ However, it was not until the 2013 Unified Library Management System (ULMS) project that member libraries began to actualize a CSU collective vision by merging their library management software systems into a single network. (Table 16.1 lists the collection of systems used prior to the migration to a unified library management system.)

After securing organizational and strategic support from the CO and COLD, a ULMS steering committee was formed of key CO personnel and representatives from libraries across the system. A year-long request for proposals process resulted in the selection of Ex Libris Alma as the consortial library management system and Primo as the consortial discovery layer. Paramount in the selection process was consideration of key functional requirements, including shared electronic resource acquisitions, electronic resource management, usage statistics, and comprehensive collections analysis tools. Although Ex Libris had not yet fully developed consortial functionalities put forth by the steering committee, Alma and Primo were chosen to best meet the collaborative needs of the CSU libraries consortium.

TABLE 16.1 Pre-Migration ILS, ERMS, and Link Resolver

Campus	ILS	ERM	Link Resolver
Bakersfield	Voyager	n/a	SFX
Channel Islands	Voyager	n/a	SFX
Chico	Sierra	Innovative	SFX
Dominguez Hills	Millennium	n/a	SFX
East Bay	Sierra	n/a	SFX
Fresno	Sierra	Innovative	SFX
Fullerton	Millennium	Verde	SFX
Humboldt	Voyager	n/a	SFX
Long Beach	Millennium	Innovative	SFX
Los Angeles	Millennium	n/a	SerSol
Maritime	Sierra	n/a	SFX
Monterey Bay	Voyager	n/a	SFX
Moss Landing	Koha	n/a	SFX
Northridge	Millennium	Innovative	SFX
Pomona	Sierra	Innovative	SFX
Sacramento	Alma	Alma	Alma
San Bernardino	Millennium	n/a	SFX
San Diego	Sierra	SerSol	SFX
San Francisco	Sierra	Innovative	SFX
San Jose	Sierra	Innovative	SFX
San Luis Obispo	Millennium	SerSol	SFX
San Marcos	Alma	Alma	Alma
Sonoma	Sierra	Innovative	SFX
Stanislaus	Millennium	n/a	SFX

SHARED ELECTRONIC RESOURCE ACQUISITIONS AND MANAGEMENT

Acquisitions

The CSU libraries have collectively acquired and managed electronic resources since 1989. With three decades of cooperative electronic resources acquisitions and management experiences, the CSUs have naturally developed complex workflows and protocols to address a variety of needs and changes in the field. These processes have evolved into a system utilizing three models of electronic resources acquisitions across the 23 campuses:

1. *Electronic Core Collection (ECC)*. These resources are 100% centrally funded, negotiated, ordered, activated, and maintained by the central office, SDLC.
2. *Opt-in*. These resources are centrally negotiated, ordered, activated and maintained by SDLC but paid for by each campus that elects to acquire them.
3. *Local-only*. These resources are negotiated, ordered, activated, maintained, and paid for by each campus, without intervention from SDLC.

These three methods serve the needs of individual libraries within the consortium, allowing them to tailor their collections to local needs and to reach new levels of service quality and efficiency while minimizing cost. The ULMS utilizes the Network Zone system of Alma, which allows SDLC staff to activate, post licenses for, and create purchase order lines for shared electronic resources on behalf of the libraries. For ECC resources, SDLC staff activate resources for all the campuses. For opt-in resources, orders are placed centrally in the Network Zone backend and pricing and licensing data are pushed to the staff at individual campuses, who then locally process payments for opt-in resources. The collaborative model is wonderfully flexible, as libraries retain their ability to purchase, activate, and maintain resources at the local level should they so choose. (See table 16.2.)

In each of these models, electronic resource services (including licensing, usage monitoring, user authentication, OpenURL maintenance, and metadata maintenance) require varying levels of staff involvement across individual campuses and the central office. The

TABLE 16.2 Three Acquisitions Models

Acquisition Model	Negotiation	Order	Activation	Maintenance	Funding
ECC	CO	CO	CO	CO	CO
Opt-in	CO	CO	CO	CO	Individual campus
Local-only	Individual campus	Individual campus	Individual campus	Individual campus	Individual campus

ECC, Electronic Core Collection; *CO*, Office of the Chancellor.

evolution of these workflows has been in response to both budgetary challenges as well as industry trends. In the early days of system-wide agreements for electronic resources, CSU libraries would receive coded memos outlining the pricing and terms for licensed electronic content. Acquisitions staff at each library would fax back responses indicating their intent to subscribe, decline, or cancel a resource. In 2008, the system began using online forms and a Microsoft SharePoint site (CSYou) to respond to these subscription memos. Licensing workflows continue to be split between centralized and local models in the ULMS environment. Contracts for resources that are shared by multiple campuses are negotiated by SDLC on behalf of participating campuses; these agreements continue to be posted in the CSYou intranet in order to provide easy access for CSU employees across all 23 campuses. However, with the migration to the ULMS, these contracts are now also stored in Alma, which provides easy access to the terms and conditions of each agreement and the pdfs of the contracts themselves.

Electronic Resource Management

From June 2002 to June 2013, the CSU system (via SDLS) utilized Ex Libris's SFX OpenURL link resolver software to manage user access to its numerous electronic resource holdings. SFX allowed for both centralized and localized functional management of electronic resources via multiple server instances: one controlled by staff at the CO and one managed by staff at the local level for each CSU campus. The local instances were designed such that electronic resources selected at the campus level would override resources activated and managed by the CO. Resources managed centrally by staff at the CO were inherited by the local libraries in SFX, reducing the total number of titles each campus had to maintain.

Like many library management systems, SFX is built around a central knowledge base that contains metadata such as holdings, ISSN, linking, and descriptive information for a multitude of electronic resources. SFX connects library users to electronic resources owned/subscribed to and maintained by CSU libraries and the CO by utilizing OpenURL software. OpenURLs include information about specific resources as well as the context in which the URL appears and

the context of the request; clicking on the “Find Full-Text” SFX link redirects the library user to the desired resource in whatever source (e.g., journal, database, institutional repository) it is available.

In addition to SFX, many campus libraries utilized an electronic resource management (ERM) system, or ILS, such as ProQuest’s Serials Solutions or III’s Sierra. Systems such as these allow for easier management of local electronic resources. However, with the CSU-wide migration to ULMS, multiple access management tools like SFX and ERM are no longer needed to manage and maintain both local and consortium resources. Resources subscribed to and/or purchased by the CO are now managed in Alma’s Network Zone, just as they were in SFX, and local subscriptions and purchases are managed at the campus level in Alma’s Institution Zone.

Usage Statistics

Statistics for three surveys, including usage reports for the libraries’ electronic resources, are collected on a yearly basis for all 23 campuses: The Integrated Postsecondary Education Data System (IPEDS),¹⁰ the Association of College and Research Libraries (ACRL),¹¹ and until 2015 a hybrid report that included usage was sent to the CSU CO. IPEDS “is a system of interrelated surveys conducted annually, which gathers information from every college, university, and technical and vocational institution in the United States and other jurisdictions (such as Puerto Rico) that participate in the federal student financial aid programs.”¹² The information collected for IPEDS relates less to collection use and more to numbers of students enrolled, dollars expended, and degrees or certificates earned.

The CSU CO requires annual reporting on the number of collections and library expenditures for each of the system’s campuses. The reports can be viewed online at the CSU Systemwide Digital Library Content (SDLC) website.

The Association of College and Research Libraries (ACRL) also requires annual statistical reporting through its Academic Library Trends and Statistics Survey. The survey has three main objectives: efficiency, timeliness, and relevance. In 2015, a new survey instrument was created and new questions added relating to e-journal usage.

To date, the CSUs have not developed standards for reporting usage statistics from the shared system. A likely future collaboration will be to create and share queries in the Analytics section of Alma, allowing library staff at each institution to run canned reports that meet reporting requirements. Due to the limitation of some functionality in the Network Zone, and to the level of reporting customization undertaken at each library, reporting of usage statistics will likely continue to be performed at each individual campus.

OTHER COLLABORATIVE CHALLENGES: COMMUNICATION, SHARED PLATFORMS, AND LEGACY DATA

Communication

Clear channels of communication are essential to any collaborative effort to acquire and manage electronic resources, let alone to the simultaneous migration of 23 disparate, complex library systems comprised of hundreds of staff into a cohesive whole. Much thought and consideration at the highest levels was given to how best to convey information throughout the migration process. During the implementation phase, the CSU libraries utilized the “train the trainer” model, where a small number of librarians and staff attended training by the software provider and then returned to their home campuses to train others. The implementation team also led weekly conference calls with Ex Libris, created a wiki to document and share decisions and procedures, and hosted staff-led webinars on a wide variety of subjects across functional areas. Finally, email listservs and the team communication tool Slack were utilized to cover questions relating to all aspects of the system (discovery, technical services, access services, analytics, and systems). The all-in combined efforts of the implementation team, the campus project managers, the working groups, the CO, and the entire CSU library staff ensured that information flowed freely and vital knowledge was shared. Truly, the 23 distinct campus libraries became *the* CSU library, and the relationships and communication channels forged through the implementation process are now the new normal. Recent formation of governing committees for various functional

areas will doubtless result in ongoing analysis and discussion, and continuous improvement for the ULMS.

Shared Platforms

While this chapter is concerned mostly with collection development and acquisitions issues, it is always worth considering how the public will view and access the resources purchased within a shared platform, as these decisions will affect the work of acquisitions staff. For example, within a centralized system public display issues arise when, say, one campus has negotiated access to an e-book that is not available to the other member institutions. A shared system that displays print sources in a system may also necessitate tighter collaborations among resource sharing staff to ensure lending policies are agreed upon.

The variations in the size of the libraries' budgets, staff, and acquisitions activities have resulted in a proliferation of localized workflows, which makes the task of implementing any piece of system-wide software a lengthy process. Diverse local practices and collection development needs necessitate that individual libraries must maintain at least some electronic resources and collections that are localized to the university's curriculum. For example, the library at Sonoma State must support the collection needs of a viticulture program, while San Jose State supports a school of library and information science, and San Diego State supports curricula in comic and graphic arts. These are unique programs that are not shared by all campuses and so a unified system must support these unique collections. Besides collection development, at the time of migration each campus had different practices for handling invoices through campus accounting systems, thus making it impossible to utilize the PeopleSoft integration throughout the system. Nevertheless, the benefits of moving to a shared system were substantial so the ULMS moved forward. The CSU libraries have shared collection development strategies for three decades, and so the implementation of a shared platform represents a natural evolution of that collaborative process.

Migrating Legacy Acquisitions Data

When migrating a legacy ILS system to a new platform, seemingly endless factors exist to consider around the treatment of historical acquisitions data. Tantamount in determining what acquisitions data

should be retained is local accounting practice. While all 23 campuses share the same financial system (PeopleSoft by Oracle), accounting requirements and practices vary wildly from campus to campus. Some may be able to generate payment checks directly in the library, while others must export payment data to the central university accounting office. Some may utilize funds from a general collections budget in order to make payment on various types of materials, while others must strictly adhere to budget project codes and allocations for specific material types and purchase models (e-books versus print, subscriptions versus standing orders, patron-driven acquisitions versus approval plans, and so forth). There was no single best practice or recommendation that was advisable to fit each campus' needs, and so each made its own determination as to whether to retain and migrate historical acquisitions information within the ILS.

Beyond determining what was appropriate to retain in compliance with local accounting policy, the campuses needed to also consider statistical reporting requirements, record-keeping guidelines, and future reporting needs. Statistical reports for many campuses take the form of gold standards like the ACRL IPEDS annual report. In addition, all system libraries must provide statistics for the *California State University Library Annual Statistic Report*, which has in recent years been refined to more closely align with ACRL reporting requirements, thus reducing reporting fatigue. Local campus reporting requirements may also be present, such as a title purchase accounting for the generally accepted accounting principles (GAAP) or other auditing purposes. To that effect, local records management practice may, to some extent, dictate what and for how many years records must be retained, and again, policy may vary from campus to campus.

Ultimately, after considering what acquisitions data one *must* report on, the migrating library should consider what data it would *like to* report on in the new consortial environment. While the shared electronic resources acquisitions functions mentioned previously allow for uniform collection and reporting of bibliographic data, individual libraries may have unique reporting needs. Alma Analytics, for example, provides robust and near-real-time data about library collections and their use, allowing deep insight into the particular needs of a given institution or library branch. One such metric that previously had been difficult to track was the cost per use

of expensive e-journal and e-book subscriptions; a task that is rendered easy with Alma's built-in usage statistic harvesting (SUSHI) functionality. Analytics, however, is at its most powerful when it can draw from information that is present in the fixed fields of various types of records, such as payment lines in purchase order line (POL) records, and migrated data from the legacy ILS largely ends up in a concatenated notes field, where multiple payment lines are merged into a single entry. Sadly, to date, only Voyager libraries enjoy the privilege of the migration of legacy payment data into fixed fields that are readable by Analytics, thus allowing for premigration retrospective collections and financial analysis within the Analytics platform. For institutions migrating from other systems, the financial data must be exported to an external file (such as a comma-separated values spreadsheet) and analyzed separately, or compared with Analytics data, in order to gain any comprehensive insight across pre- and postmigration library operations.

Some non-Voyager CSU libraries have opted to bring legacy financial data with them in the concatenated notes field to better have the information at the ready for historical reference, while still others have gone a completely alternate route: *tabula rasa*. Many readers will surely have felt the pain of inflexible budgeting or collection management tools and their associated workflows that are out of date, inadequate to support automated processes, and/or just plain inaccurate. A number of CSU campuses opted to not migrate any legacy financial data whatsoever, thus allowing them to build a fresh accounting structure within Alma and tool new acquisitions workflows that are in alignment with current policies, procedures, and available resources (such as integration of an optional GOBI API subscription) without the baggage of legacy data. Still others used the migration as an opportunity to revisit collection development policies and fund code structures, redefining and refining collections areas to reflect current institutional curricula and user needs better. Finally, some campuses opted for a hybrid of both, whereby they migrated some acquisitions data for a rainy day and also built entirely new accounting structures and POLs. San Diego State in fact performed two acquisitions migrations, incorporating vendor data from both its ILS (Millennium) and its external ERM system (Serials Solutions), serving as a test case to help Ex Libris further refine its migration protocols for the future.

Finally, the migrating library must keep in mind the amount of cleanup and effort required to migrate legacy acquisitions data versus starting over with a clean slate. Examine the general state of your order records; the currency of your vendor codes and addresses; the sheer number of POLs you would have to create from scratch were you to *not* migrate. Look for efficiencies in the migration of data, and explore batch uploading and record creation possibilities in the postmigration system. Regardless of whether an institution chooses to migrate acquisitions data, an export of legacy data is recommended in order to fulfill those “just in case” needs, such as for an audit, collection allocations formulae, or the avoidance of duplicate orders. You never know what data you will miss until it is gone forever.

CONCLUDING THOUGHTS

While migration to a shared platform has not been painless, the benefits far outweigh the difficulties. Consider the amount of time it takes to copy catalog an e-journal or e-book. Now add to that the time required to reconcile vendor title lists with the bibliographic record data, test electronic access, and verify holdings data along the way. If you are working with multiple systems to manage your electronic resources—the ILS, an OpenURL resolver, a stand-alone journal/database A–Z list or content management system, and perhaps even a separate ERMS—that data must then be replicated across all those silos, so the amount of time and effort you expend to implement a new electronic resource acquisition has just been exponentially increased. Libraries have for too long been making do with a patchwork network of occasionally interoperable systems, to the detriment of the user, as valuable resources are drawn away to wrangle increasingly unmanageable electronic acquisitions workflows and volume. The Unified Library Management System of California State University allows its member libraries to break free of this pattern, creating successful and fruitful collaborations across the system as we focus our efforts on maintaining one database in a centralized network.

To date, implementation is mere months behind us, and there is still much work to be done in our new collaborative environment. The collection of apples-to-apples electronic resource usage data in the coming

year will position the system to make better-informed subscription decisions come renewals time, and the interlibrary loan activity across the system will surely enable geographically close libraries to consolidate some of their acquisition efforts. Reporting for ACRL statistics relating to library acquisition will benefit from shared procedures for entering cost data and generating figures. There are a few features not implemented out of the box that we will want to reinvestigate later, such as the ability to track the results of trials that could be utilized to gauge interest and usefulness of new resources across the system. Governing committees formed from representatives across a wide swath of campuses are steering collaborative efforts from discovery to circulation, and from acquisitions to cataloging. Now more than ever before, individual library staff members are empowered to look underneath the hood of the ILS, allowing for a greater variety of viewpoints and insight as to the acquisitions efforts of the individual campuses, and the system as a whole. We have eagerly embraced the changes brought by our migration thus far and look with earnest upon the changes yet to come.

NOTES

1. "Statistical Reports, CSU Fall Term Enrollment Summary, Fall 2016 Profile 2016–2017," California State University, Institutional Research and Analysis, January 2017, http://www.calstate.edu/as/stat_reports/2016-2017/f_16toc.shtml.
2. Ibid.
3. "CSU Library Statistic Reports," California State University, Institutional Research and Analyses, <http://www.calstate.edu/library/content/statistics/>.
4. Wil Weston, "Revisiting the Tao of Resource Sharing," *The Serials Librarian* 69, no. 1 (2015): 47–56, <https://doi.org/10.1080/0361526X.2015.1021988>.
5. Council of Library Deans (COLD), <http://www.calstate.edu/library/content/cold/index.shtml>.
6. Rick Burke, interview by Jennifer Rogers and Tyler Rogers, June 15, 2017.
7. *Transforming CSU Libraries for the 21st Century: A Strategic Plan of the CSU Council of Library Directors*, California State University,

- September 1994, http://www.calstate.edu/ITPA/Docs/html/lib_strat_plan.html.
8. Ibid.
 9. *Libraries of the Future: CSU LA Basin Pilot Project for Developing Cost-Effective Library Services and Resources for Student and Faculty Success in the 21st Century*, California State University Libraries, February 1, 2013, https://www.calstate.edu/library/documents/LOFT_Recommendations_Report_v1_o.pdf.
 10. IPEDS: “Integrated Postsecondary Education Data System,” National Center for Education Statistics, <https://nces.ed.gov/ipeds/>.
 11. “Academic Library Statistics,” Association of College and Research Libraries, <http://www.ala.org/acrl/publications/trends>.
 12. “IPEDS Data Collection System,” National Center for Education Statistics, <https://surveys.nces.ed.gov/ipeds/ViewContent.aspx?contentId=11>.

PART 5

Collaborations Between Acquisitions and the Digital Repository

EDITED BY MICHELLE FLINCHBAUGH

In part 5 the term “digital repository” includes both typical institutional repositories and digitized special collections—we are aware that the term “repository” means only the institutional repository in some libraries, but both the institutional repository and digitized special collections in others.

Before our editorial team surveyed libraries about how acquisitions units collaborate, I only knew of two libraries where there was collaboration between acquisitions and a digital repository. Our survey results showed that 30.56% of responding libraries had some form of collaboration between acquisitions and a repository. The most common repository or digital collections work being done in acquisitions was metadata creation, with 11% of the libraries doing this type of collaboration reporting it; 10% reported doing special projects for the repository; 8% of the libraries reported that acquisitions manages rights; 7% reported that acquisitions and digital collections are in the same unit; and 6% reported that acquisitions and the repository are in the same unit. Obtaining, digitizing, reformatting, and loading metadata were each reported by less than 5% of the libraries. While our survey showed that collaborations between acquisitions and repositories occur less frequently than collaborations between acquisitions and the other functions covered in this book, 30% is still substantive.

This part of the book may be most unique and interesting since repositories are relatively new and not yet ubiquitous in libraries.

Part 5 includes four chapters on collaborations between acquisitions and repositories, with each collaboration significantly different from the others. In “Managing Electronic Theses and Dissertations in Acquisitions,” I write about the many collaborations this requires. In “Health Sciences and Human Services Library Collection Management Support for the UMB Digital Archive,” Steven Douglas writes about taking on work digitizing special collections materials in acquisitions. In my second chapter, “Developing Consortial and Campus Institutional Repositories,” I write about leading the process of developing a repository for my library, and then for a consortium of libraries as an acquisitions librarian. Finally, in “Using Institutional Repositories to Make Purchasing Decisions,” Richard Wisneski and Marsha Miles write about mining a repository for information that can be used in collection development for the selection of materials for purchase.

CHAPTER 17

Managing Electronic Theses and Dissertations in Acquisitions

Michelle Flinchbaugh

INTRODUCTION

In February 2009, the acquisitions librarian for the University of Maryland, Baltimore County (UMBC), proposed that the Acquisitions Unit take responsibility for digital transfer services for digital collections. The workload of the Acquisitions Unit had been declining, and all indications were that it would continue to decline. Ordering processes had been streamlined and required less staff time, and purchasing of e-book packages and a switch to patron-driven acquisition for e-books suggested that staff time spent on ordering would continue to diminish. An article about transfer-related services suggested a new set of services the unit could provide:

- acquiring digital content;
- conducting quality review of digital content;
- moving digital content between systems; and
- inventorying, manipulating, and ingesting digital content into digital collections.¹

UMBC is a public research university that enrolls approximately 13,500 students. Founded in 1966, it's a very young but well-rated university, one of 147 U.S. universities named as a top global university by *U.S. News and World Report*; it has also received national recognition as a top university in innovation and teaching. Approximately

2,500 of UMBC's students are grad students. UMBC's library, the Albin O. Kuhn Library and Gallery, uses CONTENTdm to house its digital collection. A primary emphasis of UMBC's Special Collections is photography and the history of photography, and CONTENTdm was originally purchased to house digitized photographs. However, over time the collections on CONTENTdm have grown to include records, proceedings, reports, digitized books, and electronic theses and dissertations (ETDs). Some of the material was digitized from print collections, but a good portion of the documents are submitted in digital format, including some ongoing serial publications. It was these latter materials that the acquisitions librarian was suggesting that Acquisitions manage.

A more pressing need was the management of ETDs. All UMBC theses and dissertations are submitted to ProQuest, and the submission process is managed by UMBC's Graduate School. ProQuest publishes the ETDs and provides them to the library in electronic format, along with metadata in XML format. The work formerly belonged to the University Archives in the Special Collections Department but had been passed to a serials librarian, and scripts had been developed to reformat the XML metadata for CONTENTdm. The librarian managing the process had resigned and the scripts had broken. They were moved to the archivist in Special Collections. Moving the XML metadata into CONTENTdm was a challenge with the broken script. The archivist had a student manually copy and paste metadata elements from the XML files into CONTENTdm. The process of locating a specific XML tag to copy its contents into a particular CONTENTdm field was time-consuming.

The acquisitions librarian had some experience in managing and manipulating large data sets. She believed she could probably automate the process using Microsoft Access or Excel features and then train her staff to carry them out. She leveraged an article, "Repurposing ProQuest Metadata for Batch Ingesting ETDs Into an Institutional Repository," about how another library had done this, which gave her some ideas about how it could be achieved.² The acquisitions librarian, archivist, and head of Technical Services all met, information was provided, and the acquisitions librarian took over managing the ETDs.

TAKING RESPONSIBILITY FOR THE ETDS IN ACQUISITIONS

The acquisitions librarian initially attempted to use Access for the metadata conversion process but soon realized this would not work because of Access's limits on field size. She discovered that Excel has XML utilities but that they are included in a Developer tab that is turned off by default upon installation. Using the XML utilities, formulas, and macros, she could develop an Excel template for changing ProQuest XML metadata into a format that could be ingested by CONTENTdm.

After a minimal period of testing, the ongoing processing was then handed off to an acquisitions technician. The technician, who is computer savvy, learned a number of new software packages, as well as new Excel features, for handling the ETDs, including FileZilla for downloading files, 7-Zip for unzipping files, Adobe Acrobat for manipulating pdfs, and the CONTENTdm Client for loading files onto the CONTENTdm server. While she was quite able to handle this complex procedure, many exceptions were discovered. Often an ETD could not be processed using the general procedure, so the acquisitions librarian had to investigate and expand the procedure to cover special cases. After a period of about a year, nearly all exceptions were documented—although the technician occasionally still discovers new variations.

Soon after taking over work on the ETDs, it became apparent that managing ETDs would involve more than just devising a system for ingesting metadata into CONTENTdm. The following additional tasks also materialized:

- The library wanted to enter into negotiations with the Graduate School to eliminate personal information from ETDs.
- The library wanted to enter into negotiations with the Graduate School to develop a mechanism to provide information about what theses and dissertations were expected and when.
- The library wanted to enter into negotiations with the Graduate School to create and implement a permissions form as part of the ETD submission process that would permit them to be publicly accessible.

- Receiving and paying for print theses and dissertations needed to be moved from the Graduate School to the library.
- Procedures needed to be developed for the occasional older theses and dissertations Special Collections received permission to digitize and make accessible.
- Inconsistencies between the ETD collection and other CONTENTdm collections had to be investigated and resolved.
- A plan for maintaining the integrity of URLs in the catalog had to be put into place.
- A method for loading ETD metadata into OCLC catalog records had to be devised.
- Upon the implementation of an institutional repository, the ETDs had to be migrated from CONTENTdm to DSpace.

Collaboration would be required with the archivist in Special Collections, the Graduate School, and a cataloger. Further, information would have to be obtained from ProQuest to better understand the metadata, particularly regarding embargo information. Some issues also impacted the Interlibrary Loan Department, as it occasionally lends theses and dissertations with permission from the authors.

LITERATURE REVIEW

The earliest work on ETDs occurred in the late 1980s, with meetings attended by representatives of University Microfilms International (UMI), the Coalition for Networked Information, the Council of Graduate Schools, Virginia Tech, and the University of Michigan. In the early 1990s the same group started a project to develop standards and applications for capturing ETDs electronically. An outcome of that project was UMI's ProQuest platform for digital dissertations that began accepting all submissions in electronic format in 1997. UMI also began scanning and digitizing paper and microform submissions. The Southeastern Universities Research Association (SURA) provided funding for Cornell University, the University of Michigan, Penn State, and Virginia Tech to develop and disseminate a standard method of using SGML to make dissertations available online.³

The U.S. Department of Education funded a grant for Virginia Tech to create a national digital library of ETDs, which became the Networked Digital Library of Theses and Dissertations (NDLTD). The NDLTD is a confederation of member institutions and organizations that provides access to theses and dissertations. With additional funding from Adobe, IBM, and Microsoft, Virginia Tech became the worldwide leader in ETD development.⁴ In 1999, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) became interested in ETDs. In 2000, UNESCO supported Virginia Tech in developing an ETD best practices document, *The Guide for Electronic Theses and Dissertations*.⁵

Professional organizations in both higher education and librarianship began publishing informational articles on ETDs. In 2003, Hall, Hoover, and Wolverton authored a work published in *Technical Services Quarterly* covering the history of ETD initiatives and recommending campus planning and networking with Virginia Tech to institutions interested in developing an ETD initiative.⁶ Joan K. Lippincott, with the Coalition for Networked Information, wrote *Institutional Strategies and Policies for Electronic Theses and Dissertations*, published in the 2006 Educause Center for Applied Research *Research Bulletin*.⁷ Fyffe and Welburn wrote “ETDs, Scholarly Communication, and Campus Collaboration: Opportunities for Libraries,” published in *College & Research Libraries News* in 2009.⁸

Articles also appeared focusing on the development of ETDs in different regions. “The Development and Promotion of Electronic Theses and Dissertations (ETDS) Within the UK” by Copeland and Penman, published in 2002, provides information on three projects funded by the Joint Information Systems Committee to develop ETDs in the United Kingdom, focusing, in particular, on the project led by Robert Gordon University.⁹ “University of Waterloo Electronic Theses: Issues and Partnerships,” appearing in 2006 in *Library Hi Tech*, describes a project undertaken jointly by the University of Waterloo, Theses Canada, and NDLTD to provide Open Access ETDs in Canada.¹⁰ “Electronic Theses and Dissertation (ETD) Repositories: What Are They? Where Do They Come From? How Do They Work?,” written by Kristin Yiotis and published by *OCLC Systems & Services* in 2009, covered their development in the United States and included recommendations for libraries wishing to implement them as they proliferated and as different models and systems emerged.¹¹

Some authors focused on detailed accountings of their institution's ETD implementation. Park, Zou, and McKnight wrote about McGill University's pilot ETD submission project; their article was published in 2007 in the journal *Program: Electronic Library and Information Systems*.¹² Bishop, Marshall, and Winter published an article about the University of Central Florida's ETD implementation in the Educause Center for Applied Research *Newsletter* in 2007.¹³ Wang, Bulick, and Muyumba wrote an article about initiating an ETD program at Indiana State University that was published in 2014 in *OCLC Systems & Services: International Digital Library Perspectives*.¹⁴

Hall, Hoover, and Wolverton surveyed U.S. ETD programs to analyze trends and review models. They found that in most cases, ETDs were managed collaboratively by the graduate school and the library, most often with the graduate school taking the lead in coordinating activities. The involvement of an array of other units was also mentioned. They also surveyed the position title of the individual coordinating ETDs, the number of employees working on them, the software used, and more.¹⁵ Early and Taber surveyed North Carolina libraries with ETD programs, investigating how they handle collaboration, workflows, and division of labor in ETD programs. They found that ETD programs require a large variety of skill sets and commonly involve multiple departments, usually both libraries and graduate schools, and that collaboration is usually necessary.¹⁶

Many articles have been published on cataloging ETDs, but coverage of these is outside of the scope of this article. Instead, we focus on reports of methods of manipulating metadata. McCutcheon, Kreyche, and Maurer published an article about moving ETDs from the centralized OhioLINK ETD Center to libraries' catalogs in *Library Hi Tech* in 2008. They used OAI-PMH (Open Archives Initiative-Metadata Harvesting Protocol) to extract metadata and Perl programming to modify and enhance the data, converting it from ETD-MS to MARC 21 and inserting it into their Innovative Interfaces catalog.¹⁷ Averkamp and Less wrote about their process for batch ingesting ETDs into an intuitional repository utilizing XSLT, published in *Code4lib Journal* in 2009.¹⁸ Amanda Z. Xu talked about a similar process at the 2016 ALCTS (Association for Library Collections and Technical Services) Technical Services Workflow meeting at the Midwinter American Library

Association Meeting.¹⁹ At the same meeting, Steven H. Holloway presented on a process to convert Excel ETD data into MARC Bib and NACO records.²⁰

WORKING WITH THE GRADUATE SCHOOL

Early on, the acquisitions librarian set up a meeting with appropriate people from the Graduate School and the head of Technical Services. The library's primary issues were removing personal information from the ETDs, knowing what the library should receive and when, and getting permissions from authors to make their documents publicly accessible. These issues were discussed at the meeting but were not resolved. The Graduate School, in turn, wanted the library to begin paying for the print theses and dissertations that it had been purchasing for Special Collections. This was arranged, and Acquisitions also took over this work, including a backlog of print theses and dissertations that the Graduate School had received but had not paid for. The library's issues would be raised again with the Graduate School periodically over the years, but Graduate School staff generally were too busy to meet with the library again.

The acquisitions librarian also became the point person for students with questions about the publication of theses and dissertations, which both Special Collections and the Graduate School began forwarding to her. While not a substantive workload, these questions proved to be a helpful opening in getting at least one of the library's issues addressed. A recent graduate who was job hunting had a URL to his thesis in his resume. At an interview, a prospective employer told him they wanted to see it but the link didn't work. The acquisitions librarian helped the student by immediately having him sign a permissions form and making his document publicly accessible. In addition, she renewed her request for the Graduate School to put a permission document in place so that the theses and dissertations could be made publicly accessible. The Graduate School finally agreed to this, cautioning that it would have to take the issue to its directors and the Graduate Student Association before implementing.

To design the actual permissions form, the acquisitions librarian obtained a copy of the permissions form from the University of Maryland,

College Park, was using from its repository manager, and this was passed back and forth between the Graduate School and acquisitions librarian in rounds of editing. The permissions document constituted an Open Access mandate for the ETDs—embargoes were allowed, but there was no opt-out. The acquisitions librarian was asked to attend the Graduate School directors meeting, where the issue would be discussed. She did a short presentation and the form with the Open Access mandate passed unanimously. The final version of the form was sent to campus counsel for a legal review and was approved. When many months had passed without hearing anything further, the acquisitions librarian inquired about where this stood with the Graduate School. A new version of the permissions form with an opt-out addition was provided, so the Open Access ETD mandate was not going to happen at UMBC; however, the students would at least have the opportunity to choose to make their thesis or dissertation Open Access.

Many more months passed without a word and without receiving any permissions forms. The Graduate School said it thought it had been set it up so that ProQuest would get the form completed as part of the submission processes. Several years later, the acquisitions librarian began receiving paper permissions forms in campus mail from the Graduate School. To date, those remain unprocessed with no procedure in place, as they arrived just after migrating the ETDs to a new platform and immediately thereafter the author went on research leave.

In 2015, UMBC's library director retired. The hire of a new library director and his meeting with a new director of the Graduate School proved to be another opening to address more of the library's issues with the Graduate School, and a mechanism was finally put in place to inform the library of what it should be receiving and when.

WORKING WITH LIBRARY COLLEAGUES

During the long periods of waiting for the Graduate School, the acquisitions librarian was working on issues that didn't require library–Graduate School collaboration.

As soon as the decision had been officially made to begin requiring students to complete a permissions document, a plan was developed

for transitioning the collection from one in which no items were publicly accessible to one in which some were accessible and some weren't. The existing ETDs had to have access restrictions put on them individually, along with a note indicating that the item isn't publicly available but could be provided via interlibrary loan with the author's consent. Special Collections agreed to have a student assistant put the access restrictions and note on the existing ETDs, and the acquisitions librarian provided step-by-step instructions. Once that was completed, the collection was made publicly accessible.

Along the way, Special Collections wanted to occasionally obtain permission from authors of older ETDs to digitize their documents and make them publicly accessible when frequently requested via interlibrary loan. The archivist adapted the form developed for ongoing use by the Graduate School for this purpose and began occasionally sending the acquisitions librarian older digitized dissertations (for which they had obtained permission to make them publicly accessible) for inclusion in the ETD Collection in CONTENTdm. Eventually, they agreed to place all completed license forms on a shared drive directory with access limited to interested parties—to include Acquisitions, Interlibrary Loan, and Special Collections. Since the digitized documents do not come with metadata and are missing several key pieces of information that are normally included, the acquisitions librarian developed a separate procedure for them. She determined that the best method of obtaining metadata was to utilize the catalog record for the item. She developed a procedure based on copying and pasting key bits of information from the catalog record into the appropriate CONTENTdm fields. At present, Acquisitions receives less than of five of these per year, so the copy and paste procedure suffices, but if the volume substantively increases, an automated mechanism for handling these will need to be developed.

During this time, the acquisitions librarian also developed a plan for modifying the ETD metadata schema in CONTENTdm to better match the other collections. First, she checked with the archivist about the discrepancies in case there was a reason for them that she didn't understand. She investigated the CONTENTdm administration module's capacity for making global changes and wrote up a plan for changes that she knew the system would facilitate. She sent the plan via email to the Special Collections librarians, catalogers, and head of

Technical Services for feedback. After the feedback period had expired and she had received no objection to the changes, she went ahead and made them.

Also during the long period of waiting for the Graduate School, Cataloging began adding ETD URLs to the catalog records for the print copy. The acquisitions librarian, in consultation with the head of Technical Services, investigated some possible methods of moving the ETD records from CONTENTdm to OCLC, but none seemed suitable. Around the same time, the acquisitions librarian heard about XSLT at a conference, and she and one of the catalogers attended a class on XSLT. The other cataloger in the library quickly followed suit and also learned XSLT. The acquisitions librarian reprogrammed the ETD metadata to include XSLT. Once this was done, she began looking at the ability to utilize XSLT to reformat data to import into MarcEdit for batch modification of metadata to create bibliographic records for import into OCLC and the catalog. On testing, this worked. However, she didn't have time for this, she wasn't familiar with MarcEdit, and her cataloging knowledge was obsolete. She therefore passed the information regarding how this could be done to the head of Technical Services, and a cataloger began to work on it.

The acquisitions librarian and cataloger discussed and determined that Cataloging would get the XSL metadata from the FTP server to which ProQuest sends the ETDs. The cataloger established that cataloging the ETDs would require a different XSLT process, but the acquisitions librarian provided her with acquisitions procedures and coding as a starting place so that the cataloger didn't have to remake the wheel. Soon after, a process was in place for utilizing the XSLs for cataloging as well, saving substantive time since individual records no longer needed to be manually created.

In 2018, UMBC implemented an institutional repository as a part of MD-SOAR, a consortial repository on the DSpace platform. Early in the implementation process, the acquisitions librarian thought it would be good to move the ETDs to the new platform and called a meeting that included special collections librarians, technical services librarians, and many department heads about doing so. All agreed with the platform move and discussed things that would need to be done along with the migration, such as redirecting web page and cataloging links and redoing LibGuides about ETDs. After the meeting,

the acquisitions librarian created a step-by-step plan for the migration of the ETDs, which was shared with all. She, along with acquisitions staff, utilized the slow period during the next summer to do quality assurance on the existing ETD collection in CONTENTdm, finding and correcting issues.

The following summer, the ETD's metadata was extracted from CONTENTdm and the actual object files in the ETD collection were provided by OCLC for load into DSpace. Differences in the way CONTENTdm and DSpace handle objects with multiple files required reformatting them. Differences in the way CONTENTdm and DSpace handle special characters required finding and replacing them. While working on the metadata, department names were also standardized to match the department names in the new repository. Additionally, problems with metadata were identified and corrected using Excel tools while the metadata was in a spreadsheet format.

After the successful load of the ETDs to a test server, they were loaded to DSpace. Thereafter, the acquisitions librarian rewrote the XSLT and Excel macros utilized for the ETDs to accommodate metadata differences in the two collections and to standardize departments' names automatically as part of the process. Catalogers redirected the catalog record links to DSpace. The web librarian redirected ETD web links to DSpace, and reference librarians worked on redoing a LibGuide on ETDs. After allowing time to ensure that all is complete and there are no problems, a final notification will be sent to all stakeholders and the ETDs in CONTENTdm will be made inaccessible. After another period of time—again to ensure there are no problems—the ETD Collection will be deleted from CONTENTdm.

CONCLUSION

Placing ETD processing in Acquisitions isn't something that every library will do, but this made sense at UMBC both because the skills of staff meshed well with the work that needed to be done and workloads had decreased. The work involved quickly snowballed and has required Acquisitions to collaborate with several other departments in the library, as well as with the Graduate School. This has called for patience, creative use of technology, resourceful use of

opportunities to get the Graduate School on board with changes, a very slow decision-making process requiring consultation with numerous stakeholders, and a great deal of understanding of others' priorities and perspectives. For the Acquisitions Department at UMBC, managing the ETDs is a collaborative endeavor that is always engaging and challenging.

NOTES

This chapter expands and updates Michelle Flinchbaugh's portion of the article "Acquisitions and the Digital Repository" (Steven Douglas and Michelle Flinchbaugh, "Acquisitions and the Digital Repository," *Against the Grain* 23, no. 3 (June 2011): 61–62, accessed July 20, 2017, <https://mdsoar.org/handle/11603/190>). Flinchbaugh's portion of the article was on loading electronic theses and dissertations (ETDs) into digital collections in CONTENTdm and has been expanded with new content.

1. Justin Littman, "A Set of Transfer-Related Services," *D-Lib Magazine* 15, no. 1/2 (2009), accessed July 20, 2017, <http://www.dlib.org/dlib/january09/littman/01littman.html>.
2. Shawn Averkamp and Joanna Lee, "Repurposing ProQuest Metadata for Batch Ingesting ETDs Into an Institutional Repository," *Code4lib Journal*, no. 7 (2009), accessed July 6, 2017, <http://journal.code4lib.org/articles/1647>.
3. Kristin Yiotis, "Electronic Theses and Dissertation (ETD) Repositories: What Are They? Where Do They Come From? How Do They Work?" *OCLC Systems & Services: International Digital Library Perspectives* 24, no. 2 (2008): 102, <https://doi.org/10.1108/10650750810875458>.
4. *Ibid.*, 103.
5. "ETD Guide." NDLTD, accessed August 24, 2017. <http://etdguide.ndltd.org/>.
6. Susan Hall, Lona Hoover, and Robert E. Wolverton Jr., "Publishing Electronic Theses and Dissertations: Reconfiguring Library Services," *Technical Services Quarterly* 21, no. 2 (2003): 63–70, accessed August 23, 2017, https://doi.org/10.1300/J124v21n02_05.
7. Joan K. Lippincott, "Institutional Strategies and Policies for Electronic Theses and Dissertations," Educause Center for Applied Research

- Research Bulletin*, no. 13 (2006), accessed May 10, 2019, <https://library.educause.edu/resources/2006/6/institutional-strategies-and-policies-for-electronic-theses-and-dissertations>.
8. Richard Fyffe and William C. Welburn, "ETDs, Scholarly Communication, and Campus Collaboration: Opportunities for Librarians," *College & Research Library News* 69, no. 3 (March 2008): 152–55, accessed August 22, 2017, <http://crln.acrl.org/index.php/crlnews/article/view/7952/7952>.
 9. Susan Copeland and Andrew Penman, "The Development and Promotion of Electronic Theses and Dissertations (ETDs) within the UK," *The New Review of Information Networking* 10, no. 1 (2004): 19–32.
 10. Christine Jewell, William Oldfield, and Sharon Reeves, "University of Waterloo Electronic Theses: Issues and Partnerships," *Library Hi Tech* 24, no. 2 (2006): 183–96, <https://doi.org/10.1108/07378830610669565>.
 11. Kristin Yiotis, "Electronic Theses and Dissertations: What Are They?"
 12. Eun G. Park, Qing Zou, and David McKnight, "Electronic Thesis Initiatives: Pilot Project of McGill University, Montreal," *Program: Electronic Library and Information Systems* 41, no. 1 (2007): 81–91, <https://doi.org/10.1108/00330330710724917>.
 13. Patricia Bishop, Ruth Marshall, and Debra Winter, "A Robust Thesis and Dissertation Program at UCF," *Educause Center for Applied Research Research Bulletin*, no. 2 (2007), accessed August 22, 2017, <https://library.educause.edu/~media/files/library/2007/1/erbo703-pdf.pdf>.
 14. Xiaocan (Lucy) Wang, Natalie Bulick, and Valentine Muyumba, "Publishing Student Scholarship: Exploring the ETD Initiative at a Medium-sized Institution," *OCLC Systems & Services: International Digital Library Perspectives* 30, no. 4 (2014): 232–48, accessed July 6, 2017, <https://doi.org/10.1108/OCLC-02-2014-0008>.
 15. Susan Hall, Lona Hoover, and Robert E. Wolverton Jr. "Administration of Electronic Theses/Dissertations Programs: A Survey of U. S. Institutions," *Technical Services Quarterly* 22, no. 3 (2005): 1–17, accessed August 23, 2017, https://doi.org/10.1300/J124v22n03_01.
 16. Mary G. Early and Anne Marie Taber, "Evolving Collaboration: Electronic Thesis and Dissertation Workflows in North Carolina,"

- Collaborative Librarianship* 2, no. 1 (2010), accessed July 6, 2017, <http://digitalcommons.du.edu/collaborativelibrarianship/vol2/iss1/3/>.
17. Sevim McCutcheon, Michael Kreyche, Margaret Beecher Maurer, and Joshua Nickerson, "Morphing Metadata: Maximizing Access to Electronic Theses and Dissertations," *Library Hi Tech* 26, no. 1 (2008): 41–57, <https://doi.org/10.1108/07378830810857799>.
 18. Avercamp and Lee, "Repurposing Proquest Metadata."
 19. Moreno, Heylicken, "Report of the ALCTS Technical Services Workflow Efficiency Interest Group Meeting; American Library Association Midwinter Meeting; Boston, January 2016," *Technical Services Quarterly* 33, no. 4 (2016): 432, accessed July 6, 2017, <https://doi.org/10.1080/07317131.2016.1203648>.
 20. *Ibid.*, 434.

Health Sciences and Human Services Library Collection Management Support for the UMB Digital Archive

C. Steven Douglas

In 2010, the Collection Management Department of the Health Sciences and Human Services Library (HS/HSL) of the University of Maryland, Baltimore (UMB), was facing a dilemma. Over the previous decade the library had gradually shifted from a print collection to one that was almost entirely online. This had led to a sharp decrease in the amount of time spent on physical processing, yet the department was still fully staffed with experienced workers who had been hired to do just that. Several efforts were made to find meaningful work for the staff, including an electronic journals holdings verification project and part-time assignment of some staff to other departments. One idea that held a great deal of promise for repurposing the department and providing more work for the staff was teaming with the new UMB Digital Archive to perform digitization services. A digitization pilot project was conducted in the winter of 2010 to test this concept.

At the time of the pilot project, the Collection Management Department consisted of two faculty librarians and four paraprofessional staff. The head of Collection Management oversaw library-wide collection development, was responsible for the resources budget, and supervised serials and acquisitions. A digital resources librarian was responsible for establishing and maintaining access to the library's licensed electronic resources. The four paraprofessional staff members performed more traditional serials and acquisitions tasks. The serials technician was responsible for journal check-in and claiming. The bindery technician processed journals for submission to a commercial

bindery, performed basic book and journal repairs, and assisted the serials technician in shelving journals. The accounting technician handled standing orders and dealt with the campus procurement office. And the acquisition technician was responsible for managing a book approval plan and the firm order of books. Her duties also included copy cataloging.

At least, these were the responsibilities of the paraprofessionals in theory. The library had switched to an almost exclusively online journal collection, only maintaining a small browsing collection of around 40 titles. This left the serials technician and the bindery technician with little work to do. The change by the campus procurement office from paper forms to an online requisition system, and particularly the adoption of electronic data interchange (EDI) invoicing by the library, eliminated much of the work the accounting technician had traditionally done. And budget constraints combined with the loss of stacks space caused the library to reevaluate its book buying strategy. When it was discovered that most books purchased on the traditional approval plan were never used, the library switched from “just in case” to “just in time” book purchasing. This, in turn, left the acquisitions technician with too much free time.

It was difficult to find new enjoyable and meaningful tasks for the paraprofessionals to perform. The acquisitions technician helped some with electronic resources, collecting journal statistics and maintaining the journal and e-book A–Z list. And the bindery technician occasionally helped with interlibrary loan when one of the ILL staff was absent. But even with these new tasks, the acquisitions technician and bindery technician still lacked enough meaningful tasks to keep them occupied and the other two paraprofessionals had even less to do. One attempt to fill the staff’s time was to conduct an electronic journals holdings verification project. Each technician was assigned a portion of the library’s electronic journal subscriptions and asked to check for access and to confirm that the holdings information was correct. This involved checking holdings in the library’s OPAC, link resolver, and journals A–Z list for consistency and then manually checking availability on the publisher’s website. Very few problems were found, and they were passed on to the digital resources librarian for resolution. The project took several months, but when it ended, the problem of filling the technicians’ time with consistent work remained.

Fortunately, a confluence of events presented an opportunity for the department to create a new role for itself. First, the HS/HSL began to explore the idea of providing a digital archive as a service to the campus. Second, the library's historical collection obtained the papers of Florence P. Kendall. Dr. Kendall was an important player in the creation of physical therapy as a profession, a leader in the American Physiotherapy Association, and one of the driving forces in getting the State of Maryland to grant professional status to the new occupation. The library realized that this collection could very well serve as an important component of the new digital archive. And third, the National Network of Libraries of Medicine, Southeast Atlantic Region (NN/LM SEA) began to offer monetary awards to support the digitization of significant collections. The head of Collection Management was serving on the committee that was exploring the establishment of a digital archive and saw this as a way to get his department involved in the new service.

The head of Collection Management applied for and was awarded a \$5,000 Express Digitization Award by the NN/LM SEA to support the digitization of the Kendall Collection. The project was funded in whole or in part with federal funds from the National Library of Medicine, National Institutes of Health, Department of Health and Human Services, under Contract No. NO1-LM-6-3502 with the University of Maryland Baltimore. The application process was simple. The head of Collection Management wrote a short description of the significance of the Kendall Collection, explained that the collection would be made available to the public through the new digital archive, and devised an equipment budget. Working with the library's IT staff, a high-quality scanner, storage, and peripherals were purchased. The library's IT Department also assisted in training the Collection Management paraprofessionals in using the equipment. Collaborating with the Cataloging Department, the head of Collection Management also organized training for the paraprofessionals in the basics of the Dublin Core metadata schema. While some of the paraprofessionals proved adept at this, the cataloging librarians felt it was best if the paraprofessionals only identified the title of the document and the collection while submitting, leaving the more thorough description of the materials to the cataloging staff.

The pilot was a great success. Each paraprofessional was asked to devote a minimum of four hours a week to the project; most of them

chose to do much more and the pilot was completed in four weeks rather than the eight that had been initially projected. The technicians enjoyed the change of pace and the novelty of the work, and above all recognized that it was meaningful. As the serials technician put it, while it was sometimes difficult to get a decent digital reproduction of an aging typewritten document, it made the material much more accessible to our patrons and other scholars than if it had been stored behind locked doors in the library's historical collection. And as the UMB Digital Archive moved closer to reality, the paraprofessionals began to electronically submit the works they had digitized. The submission process was fairly straightforward. The library had chosen DSpace as its repository application, and each technician uploaded the pdf documents he or she had created into the Kendall Collection, placing them in the queue for the cataloging librarians, who provided a more thorough description. It was felt that this division of labor was the most efficient. The technicians would have the satisfaction of seeing their work actually placed in the Archive without the steep learning curve that would have been involved in developing metadata skills. And above all, it was stressed that the technician's work had provided the Archive with a significant collection to highlight during its rollout.

With the successful completion of the pilot, the Collection Management Department began to offer digitization as a service to the UMB Digital Archive. Over the next few years, the department handled a handful of digitization requests on an ad hoc basis. Unfortunately, the Archive was slow to recruit materials and the resultant low demand for the service meant that digitization never became a part of the department's regular workflow. Over time, two of Collection Management's paraprofessionals retired and their lines were either moved to other departments or eliminated for cost savings, leaving only the bindery and acquisitions technicians in the department. The electronic resources librarian moved to another library department, and the acquisitions technician was repurposed as an electronic resources technician. The bindery technician was given the responsibility of document delivery, providing him with more work, and this right-sizing of the department combined with an increasingly cantankerous scanner meant that the Collection Management Department was no longer in the digitization business. The digitization service moved to the Resource Sharing Department. Not only did Resource

Sharing have better scanners and more staff to provide the service, but the head of Resource Sharing also served as the Digital Archive program manager.

Overall, the digitization service was a successful collaboration between the Collection Management Department and the nascent UMB Digital Archive. The Archive started as an idea presented in a white paper and continued as a committee-run project that conducted a soft rollout. At this stage, Collection Management's digitization service was useful. It provided the Archive's first significant collection and continued support as the Archive began to develop. While demand for the service was initially low, the pilot showed that acquisitions staff can take on new and innovative roles as libraries continue to evolve. Just as the Archive began to grow as the program manager successfully recruited more material from campus, Collection Development's staff was halved, necessitating a move of the service to Resource Sharing.

NOTE

This chapter expands and updates Steven Douglas's portion of the article "Acquisitions and the Digital Repository" (Steven Douglas and Michelle Flinchbaugh, "Acquisitions and the Digital Repository," *Against the Grain* 23, no. 3 (June 2011): 61–62, accessed July 20, 2017, <https://mdsoar.org/handle/11603/190>).

CHAPTER 19

Developing Consortial and Campus Institutional Repositories

Michelle Flinchbaugh

INTRODUCTION

While many libraries are establishing digital repositories and archives, few have the resources to hire dedicated repository staff. Fortunately, acquisitions librarians and technicians generally have a broad array of existing skills that can be applied to populating institutional repositories. Acquisitions librarians are skilled in managing the flow of materials that enter library collections, and acquisitions staff have at least moderate computer skills and are accustomed to doing skilled yet redundant work. Acquisitions staff are also accustomed to working with the various licenses and user agreements needed to obtain digital materials.

The Albin O. Kuhn Library and Gallery at UMBC (the University of Maryland, Baltimore County—a public research university that enrolls approximately 13,500 students) had digital collections but no institutional repository (IR). In 2009 the library began researching possibly implementing an institutional repository. This resulted in collaborations among library departments, with faculty across campus, and eventually with librarians from other Maryland libraries to implement a consortial repository. UMBC's acquisitions librarian co-chaired the consortial group that implemented the consortial repository, and that consortial implementation is a major focus of this chapter. UMBC's initial research on repositories and its implementation of its IR were led primarily by the acquisitions librarian

in conjunction with collaborators, and that work is reported on in this chapter as well.

A previous effort to sell the repository concept to faculty at UMBC as a means of dealing with serials prices had not been successful. The inspiration to try again came from an ACRL (Association of College and Research Libraries) virtual event where faculty were talking about their need to preserve and make accessible materials that aren't traditionally published, like data sets, lab notes, and materials created in various social media platforms. Perhaps approaching a repository as a means of managing nontraditionally published materials would be successful.

DEVELOPING KNOWLEDGE AND SUPPORT

The library formed the Digital Collections Team, which formed an IR subgroup. In August of 2009 the IR subgroup began work in earnest. The group brainstormed, watched webinars, and researched, read, and attended conferences on the topic. It developed a list of repositories to look at, all with different interesting features, and a chart with a side-by-side comparison of several repository platforms. By early 2010 the literature search was completed—the group was knowledgeable on the topic and needed direction on how to proceed.

In May of 2010, the Digital Collections Team's IR subgroup was made into an independent working group, reporting directly to our Library Executive Council, which allowed it to meet with the library director for instructions on how to proceed. The library director told the group to go on a fishing expedition to find faculty to "sell the concept for us." He also recommended surveying faculty on campus to find out who might be interested. The group learned that academic centers might be particularly interested in the repository. The acquisitions librarian agreed to present to all interested faculty and all academic centers on campus about the repository. At these meetings she asked centers, departments, and individual faculty members to partner with the library in developing the service, and additionally for permission to list them as partners on a public website. The list of UMBC repository partners went up on the public-facing UMBC Digital Repository Research website, along with additional information about what a repository is and does. These meetings also helped

to foster opportunities for librarians to collaborate with faculty on projects, including a web exhibit, a digital publishing initiative, and a conference presentation.

In the end, the library's Institutional Repository Working Group found that there was enough interest in having a repository that it sent a recommendation to the library director that the library implement one. The director told the group to find grant funding. The acquisitions librarian sought educational opportunities both on and off campus to learn about grant writing. After a small-scale attempt at writing a grant proposal with some colleagues, UMBC was awarded an ALCTS (Association for Library Collections and Technical Services) Transforming Collections Microgrant to "transform our collections into safe havens for Open Access materials by bringing into the library digitally published open-access works that are in imminent danger of being lost by restoring access and by providing for long-term preservation." This allowed the library to obtain 66 faculty works and their rights and to load them into CONTENTdm as a collection that would eventually seed an IR with faculty works.

In 2011 the chair of UMBC's Humanities Council, which consists of the chairs of all of UMBC's humanities departments, expressed interest in the repository and became a very enthusiastic repository partner and asked that the library give its IR presentation at the provost's monthly meeting. With permission from the library director, who also attended the meeting to support the group, the acquisitions librarian did the presentation and it went quite well. In the end, the provost agreed to form a faculty committee to further study the issue. By January of 2013, the UMBC Faculty Institutional Repository Committee had also recommended that UMBC implement a digital repository. With that, the library had enough support for the project to move ahead.

FINDING MONEY

In mid-2013, a small core group of leaders began to discuss developing a proposal for an IMLS (Institute of Museum and Library Services) grant to support the repository and also began asking USMAI and other Maryland libraries if they might be interested in partnering on such a grant proposal. The group did additional research on consortial

repositories, sharing this information with the interested libraries along with links to some actual consortial repositories to look at. Most agreed to take a two-pronged approach, to both work on a grant proposal and form a committee to work on contracting for a consortial IR. The grant proposal focused on digital scholarship and was a collaborative effort with many partners. The multi-institutional committee investigating contracting for a consortial repository agreed to call itself MDCSDI (the Maryland Consortial Strategic Digital Initiative).

MOVING FORWARD THE MARYLAND CONSORTIAL DIGITAL REPOSITORY

MDCSDI began by contacting the library director at all Maryland higher education institutions and inviting those interested to participate. MDCSDI also publicized the initiative through the Council of Academic Library Directors (CALD) of Maryland. The group watched vendor webinars and surveyed interested libraries on their current digital collections and the types of features they would need in an IR. With all that information gathered, the group invited three vendors that appeared best prepared to meet the participating libraries' needs to provide additional webinars on how a consortial IR would work on their platform and a set of key features. Those three vendors were also asked to complete a checklist on features important to participating libraries that their platform did or did not have. The group then began to develop RFP (request for proposal) requirements and to draft an RFP.

After about a year of work, the group unfortunately learned that its grant proposal had not been funded. Following a series of meetings it determined that the consortial IR had to move forward because of the momentum and support and that MDCSDI would ask the USMAI Council of Library Directors (CLD) for funding. After careful consideration, the group determined to ask for funding for just a two-year pilot as there was no means of collecting money from the non-USMAI libraries that were participating, so the group would be asking USMAI to fund those libraries too. The group knew it couldn't ask USMAI to do that indefinitely. Careful wording of the proposal was required to ensure that the non-USMAI libraries would remain full partners with

the same way as everyone else, which was important so that they would stay on board. When the group leaders presented this proposal to CLD, there was some discussion of the outside libraries being problematic, but once the presenters pointed out that these libraries had been working with the group from the beginning and had put substantive effort into the initiative, CLD agreed to support the proposal.

At this point, the University of Maryland, College Park (UMCP), Digital Systems and Stewardship Office (DSS) offered to host the repository on DSpace. The group agreed to talk with DSS about this. DSS provided a clear proposal, talked about what service it would offer, and answered numerous questions. DSS also provided a formal written response to the RPF, and the group unanimously agreed that UMCP would be the best choice. The request for the actual funds needed for the project and the UMCP proposal were sent to CLD for a vote, and it approved.

TRANSITIONING TO AN IMPLEMENTATION GROUP

Any additional USMAI libraries interested in the project were given time to let the group know that they would be participating, and the group added representatives of additional libraries at that time. Participating university libraries from the USMAI include Frostburg State University, Morgan State University, Salisbury University, the University of Baltimore, St. Mary's College, and the University of Maryland, Baltimore County. The libraries from outside of the USMAI consortium were asked to sign an informal agreement document, and all of them did so. They include Loyola/Notre Dame Library, Goucher College, and the Maryland Institute College of Art. The project period began on April 1, 2015, and ran for two years. The group agreed that during the two years, it would implement the repository and participating institutions would use it. Also, during the two-year test period, it would develop an assessment strategy, assess the project, and provide a report to CLD. It also needed to devise a means to determine an appropriate amount for the non-USMAI libraries to pay in the future, as well as a payment method.

MDCSDI moved from planning for a shared IR to the implementation phase on February 1, 2015, and was renamed the Governance

Group. While the two-year project wasn't divided into parts, there were four distinct phases, named and utilized to organize the group's activities:

1. *Pre-implementation*—before the system was installed, the group developed infrastructure, planned, and developed policies.
2. *Implementation*—during which time the system was installed but not ready for use, the group worked on customization and configuration decisions, loading, and support and training.
3. *Post-implementation*—after the libraries were using the system, the group worked on enhancements (Creative Commons licenses), reports and statistics, and usability.
4. *Evaluation and planning*—during which time the group evaluated the success of the project, assessed future needs, and developed a request for ongoing funding.

PRE-IMPLEMENTATION

Infrastructure

Infrastructure issues focused on how the group would work and communicate and how the group and individual members would communicate with DSS. It had decided that the Governance Group would function democratically, with each library getting one vote in decisions impacting the platform. The group was comprised of one contact from most libraries participating. It immediately asked each library to additionally name alternate contacts to ensure that all campuses were aware of key issues as implementation progressed. It determined that all meetings should be open so that specialists not on the official contact list could attend either as substitutes or in addition to regular members to provide input into discussion and decisions. Email lists, which had been hosted by UMBC, were migrated to the host site at the University of Maryland, College Park. The group's web page was migrated from UMBC to Basecamp, a web-based project management and collaboration tool (<https://basecamp.com/>). Later, when libraries had trouble finding relevant policies in Basecamp, policy documents were moved to a web page on the public USMAI website, along with a list of campus contacts. In addition to organizing the governance

group, DSS named contacts who the group worked with throughout the project. With feedback from the group, the USMAI executive director and DSS drafted a “Service Level Agreement” outlining the services that participating libraries would receive. The agreement was between DSS and USMAI rather than between DSS and the individual libraries since USMAI provided 100% of the funds for the project.

It is important to note that while some elements of the infrastructure were set, there was a great deal of flexibility in how the group made decisions. Workload stress always had to be considered when determining how to get things done. Most issues were worked on by a small group, which would submit a plan or policy draft for discussion, possible modification, and a vote. Sometimes during group discussion a plan would emerge and, barring any objections, be accepted. As metadata is a complex issue, and the Governance Group had only two members with expertise, it delegated it to a standing subgroup with additional members with appropriate expertise and gave that subgroup decision-making authority. In the instance of record displays, there were very strong opinions on a very detailed level, so the subgroup working on the issue submitted two possible plans. The group voted on the plans, then each library proposed modifications and the group voted on each proposed modification. In the instance of usability, a usability study was delegated to a USMAI User Experience group. It is important to note that Governance Group members by and large were responsible for their library’s implementation of the repository along with the duties of their regular full-time job and, depending on their current workload or projects in their library, were not always responsive or engaged in the decision-making process. Essentially, it wasn’t always easy to get things done. It required flexibility, and a variety of different methods were utilized.

Implementation Planning

The first implementation decision the group had to make was a consequence of implementing a single, centrally hosted system for all the libraries to use. There would be only one URL for the site, so libraries would not be able to use their own URLs for it. After some discussion, the group agreed to call the repository MD-SOAR (the Maryland Shared Open Access Repository) and to base the URL on that name. Further, the USMAI executive director agreed to hire a graphic designer to create an MD-SOAR logo to appear on the site.

Each library would have a community within the repository, which could contain limitless collections and subcommunities. After some discussion and research on the part of DSS, the group agreed that each library would also provide a university logo to appear on all the pages within its community for continuity in university branding.

In advance of the first implementation meeting, on the request of a participating library, the USMAI executive director, the director of Consortial Library Application Support in DSS, and the Governance Group chairs agreed that the first thing DSS would do was set up a sandbox DSpace site to allow participating libraries to become familiar with the software. Libraries were given access to the sandbox site at the first implementation meeting

Policies

During the first implementation meeting, the Governance Group reviewed repository policies from other schools, then determined what policies would need to be developed for MD-SOAR: a file size policy, a content and file format policy, a metadata policy, and a takedown policy. A file size policy would address limitations on storage; with subsequent discussion, the group determined to wait for problems to occur before addressing this concern. Thus far none have occurred, so a file size policy has not been drafted or adopted. The group immediately began work on a content policy and metadata policy, assigning two group members to work on both of those tasks. The group also agreed to work on a license agreement, and one person agreed to adapt the existing University of Maryland, College Park, repository license for the group. The license agreement was adapted with few issues and little discussion but with the understanding that each participating library would consult its campus legal counsel, making the identified agreement a template to be modified by each campus as mandated by its individual counsel. The takedown policy was put off until after implementation since it was not needed in advance of implementation.

The content and format guideline was drafted and readily adopted after expanding the scope in several areas to allow all libraries to use the platform as they wanted. In the first draft, the policy stated that all items in MD-SOAR must be Open Access, but some libraries wanted to limit access on certain items so this was modified to allow restrictions based on the needs of participating libraries. The first draft limited the scope to works by current faculty, staff, students,

and academic or administrative units, but it was later expanded to include current and former people of those categories so that emeritus faculty could participate and also to free libraries from having to remove works after an author left the university. The initial draft stated that items should be scholarly or academic in nature; this was modified to also include materials that are part of or related to existing library collections, which was important to libraries planning to use MD-SOAR as a platform for digital special collections. The final policy is available for viewing here: <http://usmai.org/sites/public/files/ContentandFormatGuidelines.pdf>.

The takedown policy was also adopted only after expanding its scope. The initial draft included the most common instances, such as copyright violation. Research subjects with personally identifiable information revealed were added to the policy, as were agencies with authority over the work in whole or in part. The host university or department was given the right to remove student work that didn't meet its quality standards. Beyond a policy for what would be removed, the group also had to develop a process for handling takedown requests. This required standards as well flexibility to reach an agreement. The group needed a policy that would allow for responsiveness when campuses are understaffed and unresponsive to shield the group as well as the host from lawsuits; however, it also needed to allow each campus discretion over its own works. The group decided that all takedown requests would go to DSS, which will forward the request to the campus involved. The campus is then given seven days to respond, and if no response occurs, DSS removes all access to the item until the issue is resolved by the host campus. There were a variety of opinions as to what to do once the determination was made that there was a problem with an item. While it's called a takedown policy, the group determined that campuses at their own discretion could determine to remove a work entirely, move it to a dark archive by putting view limits on it, or modify the work by removing a problematic portion (with a note in the metadata indicating that the change had been made). The final policy is available here: <http://usmai.org/sites/public/files/TakeDownPolicy.pdf>.

Repositories are commonly organized so that each academic department has its own collection. With many universities sharing the same repository, the group quickly realized that there were likely to be multiple collections with the same name that are indistinguishable

from one another. For example, there might be eight history department collections. In DSpace, the collections appear in searches at the top of the results, so having multiple indistinguishable collections all with the same name didn't make sense. Because of this, the group determined that a campus prefix would be used in all collection and community names. This, however, is a soft policy, in that if a collection has a name that is clearly and truly unique, the prefix can be omitted. For example, a collection might be named "UMBC History Collection," but "UMBC" would not have to be included in an Albin O. Kuhn Library and Gallery (UMBC's library) collection. However, this is ultimately up to the campus.

The metadata policy was by far the most complex and time-consuming. After an attempt at a simple policy failed to work with DSpace because of misconceptions about system functionality, a metadata subgroup was formed with two members from the Governance Group and two metadata librarians not from the Governance Group. Many hours of discussion went into developing this policy, available here: http://usmai.org/sites/public/files/MD-SOAR_MetadataPolicies_rev_08_20_2015.pdf.

IMPLEMENTATION

The live MD-SOAR server was set up by DSS. Important benchmark dates were the system go-live date and when participating libraries received the go-ahead to begin submitting materials, several months later. During the implementation phase, a staging server was set up that would serve as a permanent testing site to preview software upgrades, configuration, and loads. When the system went live, server work began happening on a release schedule so that changes to live MD-SOAR only happened periodically, and only after having first been previewed on the staging server.

Customization/Configuration

As mentioned earlier, the executive director of USMAI, the project funder, agreed to hire a graphic designer to design a logo for the site. The group agreed to use a mortarboard and the state flag in the logo. The graphic designer provided four initial choices. After discussion and some alterations, the group decided on a logo and it was

added to the system. Each participating library also added a campus logo to its individual community in DSpace. Individual library contact information was also added to the footer of each campus's community.

Upon finalizing the metadata policy, the Metadata Group wanted to customize the DSpace metadata drop-down menu to match the policy, hiding elements that were not adopted in the identified schema. However, DSS was concerned that the software possibly used some of those elements and also that the Metadata Group would simply want elements that had been removed to be added back in later, especially if new libraries were added that needed those elements. However, when the Metadata Group made decisions to customize the indexing, the "do not use" elements were not included in the indexes; so, while the software continues to allow their use, they won't be indexed if anyone does use them, so adding a new library that will use them will require expanding the indexing to include them. These were the metadata and indexing customizations that could be agreed upon.

The Metadata Group also customized the submission form. At some libraries, there was a great deal of debate and a desire to have campus-specific customized submission forms, up until DSS stated that only one submission form is covered by the current contract and that adding more would require paying a fee for extra customization. Facing additional cost, interest evaporated. The one submission form broadly covers most materials but provides no opportunity to include campus-, format-, or subject-specific information. Campus information could, however, be added via templates that the libraries can create to add metadata elements to their records as they come in. In the spirit of Open Access, the group decided not to allow embargoing via the submission. This has caused problems for libraries because they must first enter an item via the submission form, automatically making the item available to the public, then must add the embargo after that. With one form, in serving the needs of the many, some simply haven't had their needs adequately met. This is an issue that will perhaps be revisited in the future.

The Governance Group formed a small group to work on the customization of the short item display. It turned out that participating libraries had very strong opposing opinions on display, with some wanting it to be very short with few metadata elements included and others wanting it to be very long with nearly every metadata element

included. The small group ended up putting forth both a long and a short version to vote on. The short version won, but each library was given an opportunity to propose additional elements to add to it. Each proposed addition was voted on, resulting in a compromise: a medium length short item display.

Loading

All libraries were given the opportunity to load materials into MD-SOAR. At first this was thought to be a one-time start-up activity, but with discussion it became clear that some libraries would need to load materials on an ongoing basis. DSS provided instructions on preparing loads. Most libraries provided files as well as a text file containing the metadata formatted appropriately for DSpace. However, with only this information, items could be loaded into only one collection. Libraries were also given the opportunity to run a program, which reformats files for load, and provide a collections file to map items into more than one collection. DSS set up Box accounts for each library to transmit files to be loaded to them. Loads initially go into a staging server, which gives the library an opportunity to check and make corrections before loading to the live repository.

Support and Training

The Governance Group was given a quick tour of the sandbox server as soon as it was set up. During every meeting for approximately the first six months, time was dedicated to question and answer. Many questions focused on loading and how to do certain activities in DSpace. Information was posted in Basecamp, and many questions were asked and answered there. In the summer of 2016, after the live server was available, the group hosted a half-day training session for any staff in participating institutions.

POST-IMPLEMENTATION

Enhancements

Many enhancements were mentioned at one time or another by various group members during the implementation cycle. These possible enhancements included integration with campuses' single

sign-on, an inline video viewer, support for multimedia, various types of campus customizations, and the implementation of Vireo to support ETD (electronic theses and dissertations) submission. The pilot contract didn't provide funding for enhancements, and no one wanted to ask for additional money until the pilot was successfully completed, so none were pursued. However, if the pilot proved successful, enhancements with wide support might be funded in a new funding cycle.

The one enhancement that could be provided immediately was the integration of Creative Commons licenses in the submission process as DSpace already had this built in, and the feature simply needed to be activated. This turned out to be more challenging than expected when options had to be customized, and help information provided for system users. The process extended over several months as configuration was determined and additional use guidance added.

Reports and Statistics

On initial implementation, built-in DSpace statistics were available to administrators, but they fell far short of the group's wish-list of statistics. The system's statistics were made available to the public and Google Analytics and Tag Manager were set up to run on the site, with each campus given access for its site. A USMAI training session on Google Analytics gave campuses an opportunity for hands-on learning. The Governance Group also looked at having statistics provided by a third-party vendor for DSpace. Despite providing additional analytical information not captured by Google Analytics, the third-party vendor option was not fully implemented and was determined to be cost prohibitive. After some discussion, the group was unwilling to ask for financial support for this option when several customizations might be a higher priority. This decision was shelved and will be revisited.

Usability

Various disagreements occurred over platform customizations and wordings. With no clear way to assess, the group decided that a usability study of the site might provide greater insight on its design. They asked a standing USMAI User Experience group to evaluate the site. The User Experience group agreed, and the Governance

Group provided information on what to include in the study. After a few months, a lengthy report was provided that outlined problems encountered and suggested improvements. Most were acted upon, resulting in an overhaul of the site's main landing page and its menus, as well as miscellaneous tweaks to improve the site's usability.

Sharing Promotional Materials

All participating campuses, as well the University of Maryland, College Park, a nonparticipating partner and the server host, agreed to share promotional materials they had developed. Several campuses loaded materials in Basecamp, resulting in a stock of materials that could be used as is or repurposed by others.

EVALUATION AND FUTURE PLANNING

Obtaining ongoing funding required documenting the success of the project and developing a payment plan that participating library directors would agree to. Additionally, funding for enhancements required building consensus around them, projecting their cost, and including that cost in a request for ongoing funding. The Governance Group additionally compiled a list of achievements and provided statistical data to document success, such as the number of items uploaded and the number of visits to the site. All participating libraries were surveyed about their satisfaction with MD-SOAR and future needs, including what customizations are considered critical and highly desirable. Participating libraries were additionally surveyed on funding models and funding levels that they're willing to support. DSS projected costs both for the current base services and for possible enhancements. All were compiled into a report to the USMAI CLD, and to non-USMAI directors separately, along with the recommendation of a five-year ongoing pricing plan.

Based on the list of achievements and statistical data, the pilot was deemed a success, and CLD voted to extend MD-SOAR and allow a limited number of new participants to join. In 2017, participating private institutions began paying their share, and the group added two additional private institutions, Hood College and Stevenson University, making MD-SOAR a successful jointly funded collaboration between public and private institutions in Maryland.

IMPLEMENTING UMBC'S IR

The UMBC Library Institutional Repository Working Group created an implementation plan, with tasks falling into five areas. The first area was supporting MD-SOAR and included all ongoing responsibilities of UMBC librarians to the consortial repository. The second area covered all tasks related to moving the ETDs to MD-SOAR (discussed in chapter 17). The last three areas were plans for implementation, documentation, and public relations and outreach.

Using a structure vetted by the Library Institutional Repository Working Group, acquisitions staff created communities and collections. The acquisitions librarian notified department chairs that web pages had been set up for them and offered to customize their pages for them. The acquisitions librarian also set up workflows in the system so that submissions require an approval. She met with faculty testers individually to show them how to use the system. Finally, on an ongoing basis, she gave submitters permission for the appropriate collections and approved materials submitted. The planning process also included training librarian testers who volunteered to deposit their own works in the system.

Much of the implementation work remains undone due to a new library director coming on board mid-implementation and the acquisitions librarian going on research leave. While a limited number of testers are using the system, and new faculty are being told about the system, the campus-wide rollout remains on pause. A decision related to the level of support the library will provide for the repository awaits strategic planning. The bulk of public relations and outreach will happen only after the system is rolled out to all of campus.

CONCLUSIONS

With a substantive investment of time by a core group of leaders and experts from a handful of libraries, implementing a shared repository was challenging, yet successful. Both real dollar costs and the staff time investment were a fraction of what would have been needed to go it alone. For participating libraries, MD-SOAR jump-started repository programs that were lagging due to a lack of funding or staff time by substantively reducing those costs and the technical competencies

required of any single partner. Together, the participating libraries were readily able to do what all were struggling to do alone, and to do it better than any one of us might have done it alone.

An IR may be successfully implemented from an acquisitions unit, utilizing existing skills and resources. Doing so requires collaboration with many people, both within and outside the library, and implementing a consortial repository substantively increases the amount of collaboration required. Implementing MD-SOAR was challenging, fun, and rewarding.

NOTE

This chapter combines and expands the following articles published in *Against the Grain*:

Michelle Flinchbaugh, "MD-SOAR, Maryland's Shared Open Access Repository It's been a Long, Long Haul," *Against the Grain* 23, no. 1 (2016): 70–71, accessed July 25, 2017, <https://mdsoar.org/handle/11603/1609>.

Michelle Flinchbaugh, "Implementing MD-SOAR, A Shared Consortial Repository," *Against the Grain* 29, no. 2 (2017): 59–62, accessed July 25, 2017, <https://mdsoar.org/handle/11603/4009>.

CHAPTER 20

Using Institutional Repositories to Make Purchasing Decisions

Richard Wisneski and Marsha Miles

Institutional repositories serve not only as a means to preserve and promote institutional faculty, student, and staff scholarly output but also as a means to assist a library's acquisitions department in making informed, nuanced purchasing decisions and assessing current collections. After a brief review of some of the purposes of institutional repositories, we will explore access points within digital institutional repositories that assist with making informed acquisition decisions, particularly with regard to faculty and student publications and research interests and the analysis of repository statistical data.

LITERATURE REVIEW

While much has been published about institutional repositories themselves, less has been published about how acquisitions work can be informed by their contents. Hanson, Lightcap, and Miguez have written about the need for acquisitions departments to adapt to institutional repositories by understanding their metadata structures and utilizing acquisitions connections by standardizing acquisition-related metadata in institutional repositories.¹ Other authors have explored altmetrics, Open Access, and copyright issues in regard to institutional repositories. Bonilla-Calero, for example, looks at the ways one can examine scholarly output by a university through examining the contents of one's institutional repository in addition to Web of Science and Scopus services.²

In 2008, Rick Anderson wrote that library trends showed growth in patron preference for e-resources, unique collections, and locally produced scholarship like that found in institutional repositories.³ As institutional repositories became more popular, challenges of implementing and maintaining them surfaced, including populating them and navigating permission and quality concerns.⁴ Morrow and Mower recommend increasing faculty awareness of scholarly communications issues and author rights.⁵ Other solutions to populating repositories with quality, permitted scholarship include marketing to specific disciplines, mediating deposits, and becoming data curators on campus.⁶ Wesolek suggests surveying end users to gain insight into who uses the materials and what type of content might be useful to them, which can influence marketing efforts and collection development.⁷

Giescke stresses that repositories would not succeed if completely separated from other library functions instead of being part of digital content management departments and core library services.⁸ As libraries evolved and experienced a shift from print to electronic journals and fewer book purchases, Douglas and Flinchbaugh pointed to transferrable serials and acquisitions staff skills that could be leveraged to complete institutional repository-related work.⁹ Rossmann and Arlitsch write about the need for libraries to shift from budgeting for the purchase of materials to the delivery of materials based on priorities of their users. Delivery and access mechanisms include integrated library systems, discovery layers, and institutional repositories.¹⁰

According to David Lewis, academic libraries would also need to change their collecting practices to focus on e-resources, on-demand purchasing and subscriptions, unique local materials (like those included in institutional repositories), and Open Access journals.¹¹ Kumar and Dora analyzed citations from dissertations completed at the Indian Institute of Management to make informed collection management decisions.¹² A study by Hoskins found that Open Access initiatives at South African universities did not significantly influence journal cancellations.¹³

As education transforms to a more open model, there are an increasing number of open educational resources initiatives worldwide.¹⁴ When Yang and Li surveyed faculty, they found that most respondents were aware of Open Access journals in their fields and willing to publish in Open Access publications; however, many were

unaware of the process to contribute to the institutional repository.¹⁵ Gaines promoted discipline-specific Open Access discussions with faculty to address their concerns and meet their specific needs.¹⁶

Howard points out that new ways of measuring scholarly influence are being explored, specifically altmetrics, which measure scholarly interactions online.¹⁷ Galligan and Dyas-Correia explain that altmetrics and Open Access publishing have gone hand in hand. One example they mention is using altmetrics for publications in Open Access institutional repositories that may not have sophisticated metrics available.¹⁸ Konkiel and Scherer wrote on the benefits for authors, repositories, and university administrators.¹⁹ As important as these various studies are, there is nonetheless room for exploring how institutional repositories can also inform acquisitions librarians to obtain material and evaluate current library holdings.

CLEVELAND STATE UNIVERSITY'S INSTITUTIONAL REPOSITORY

Located in downtown Cleveland, Ohio, Cleveland State University (CSU) has an enrollment of more than 17,000 students and approximately 580 faculty members. In order to showcase and preserve faculty, staff, and student scholarship and creative works, the Michael Schwartz Library launched CSU's institutional repository using bepress Digital Commons in March 2012.

Today, our repository includes more than 15,000 papers in over 700 disciplines. The repository hosts a variety of materials including books, conference proceedings, journals, images, videos, oral histories, and open educational resources. A number of the books and journals in the repository were published with the imprint of the Michael Schwartz Library, MSL Academic Endeavors.

The Michael Schwartz Library staff includes nine liaison librarians, and their repository work assists them in becoming more familiar with their faculties' scholarship and research interests. They also help their faculty create professional profile pages using a companion program of Digital Commons, SelectedWorks.

Liaison librarians are responsible for collection development in their respective subject areas. They draw upon their knowledge of faculty research interests and student needs in making decisions to

acquire, cancel, and retain material. They also make use of quantitative data from COUNTER-compliant statistics, consortial data, and financial data generated from our subscription agent and integrated library system (ILS). For example, subject librarians make use of interlibrary loan and consortial borrowing data to see what has been requested by our patrons as one means to determine what to acquire. The institutional repository can provide another means to investigate what is being used by patrons for future acquisition decisions.

The Michael Schwartz Library fosters collaboration among its staff. With shrinking budgets and staffing, collaboration is even more important. We are continually pursuing ways to become more efficient, eliminate duplication of efforts, and do more with less while maintaining excellent service. Library systems staff are willing to assist with projects and make workflows more efficient to benefit the library and the campus community. They are integral in the implementation of some of the following workflows.

ACCESS POINT: CITATIONS IN FACULTY PUBLICATIONS, THESES, AND DISSERTATIONS

An institutional repository provides several access points acquisitions librarians can take advantage of to better inform their work. Whether a homegrown or commercial product, institutional repositories typically include publications by faculty and staff and theses and dissertations by graduate students. These publications contain three key access points: journal titles, references/works cited pages, and keywords/subject headings.

Journal titles are a quick means for acquisitions librarians to collect information to see whether the library subscribes to the title. Depending on one's institutional repository, one can grab these titles via a record's metadata and export them into a spreadsheet to compare what journals authors are publishing in with whether the titles are available in one's library.

Another data point comes by exploring the references from the publications themselves. There are different methods to extract this information, depending on one's institutional repository and available data mining resources. In some instances, an SQL query in a

homegrown database system can extract citations in publications. Another method involves screen-scraping and exporting data in XML or raw text format. Using CERMINE, for example, one can parse digital object identifiers (DOIs) when available. One can also use Elasticsearch, with sister tool Kibana, to parse and visualize the data. For instance, one can parse <back> nodes and child nodes from publications into one file. Thus, one can capture the <source> and <article-title> information from publications:

```
<source>Journal of Advances in Modeling Earth Systems</  
source>  
<article-title>Transportation network analysis</article-title>
```

Concatenating this information into one file allows an acquisitions librarian to then run this list against current library holdings to see what publications faculty and students are citing, to what the library subscribes, and coverage of holdings. In making purchasing decisions, subject librarians can use this data to see whether there are subscriptions or monograph holdings that the library should purchase.

Similarly, acquisitions librarians can also take advantage of theses and dissertations ingested into their institutional repository. Once again, depending on the repository an institution is using, scripts can be run to text-mine the back matter from theses and dissertations to identify what publications are being cited and then run this information against holdings in an ILS or knowledge base. Running XSLT and generating compound XML files for back matter from references and works cited pages, acquisitions librarians can again see what works authors have cited that the library does not subscribe to or own.

ACCESS POINT: SUBJECT HEADINGS AND KEYWORDS

Author-provided subject headings and keywords provide another data access point. In our institutional repository, author-supplied keywords and subject headings are found in the metadata for each thesis and dissertation. Our bepress Digital Commons allows us, via its Dashboard, to export subject headings and keywords into an Excel file for further analysis. Alternatively, with assistance from a systems

A	B	C
paper-landing-link	paper-landing-link-ref	paper-headings
Three Essays on Financing and Investment Decisic	http://engagedscholarship.cs	Small Business -- United States -- Finance, Investments -- United States, small firms trade credit discounts investments cash holdings
An Inquiry into the Antecedents of Consumer Purch	http://engagedscholarship.cs	Consumer Behavior -- Moral and ethical aspects, Product counterfeiting, Consumption (Economics) -- Moral and ethical aspects, marketing, counterfeite
An Empirical Examination of Relational Governanc	http://engagedscholarship.cs	International business enterprises, Offshore outsourcing, Industrial management, Professional corporations, International business enterprises -- E
The Role of Cognitive Effort in Decision Performa	http://engagedscholarship.cs	Information visualization -- Data processing, Business intelligence, Decision support systems, Psychology, Industrial, Eye tracking, Cognitive maps (PS
The Impact of Data Imputation Methodologies on	http://engagedscholarship.cs	Data mining, Computer networks, Data mining, Knowledge discovery, Data imputation, Neural networks, Transfer functions, Sigmoid
The Impact of Diversification on Bank Holding Co	http://engagedscholarship.cs	Bank holding companies -- United States, Bank management -- United States, Diversification, Bank holding company
Analysis of the Terms of Bank Lending and Bids	http://engagedscholarship.cs	Small Business -- United States -- Finance, Bank loans -- United States, Loans -- United States -- Government guarantee Loan guarantee, Relinquish

Figure 20.1 Exporting into Excel allows us to see subject headings used by dissertation and thesis authors.

librarian, we use screen-scraper technology that grabs dissertations’ or theses’ metadata subject elements collectively and outputs a CSV file for each dissertation or thesis (see figure 20.1).

We then compare these subject headings to those utilized in our ILS and knowledge base to identify matches and unique headings. The latter is especially helpful if there are subjects in which we have deficient holdings.

Author-supplied keywords or those supplied by the publication itself provide another access point. Depending on the institutional repository being used, both data points can be recorded in a separate file, such as an Excel file, at the point of ingestion, or later from downloading citation data from the whole repository via an institutional repository–supplied dashboard, database query, or screen-scraping programs, or a screen-scraper run against an article or publication’s listing in the institutional repository when none of the other options are available.

Keywords provide an access point to possibly identify what subjects institutional authors are identifying for their research purposes. Acquisitions librarians can use this information to run queries in the ILS to see how well such subjects are covered.

In the absence of controlled vocabulary, keywords can be analyzed in terms of frequency and related discipline. For example, Kibana allows for data visualization (e.g., word clouds) to see word frequency. This information can then be run against a library’s physical or electronic holdings to identify how strong the collections are in those areas.

ACCESS POINT: BOOKS

Cleveland State University’s repository currently includes over 300 books, including over 100 books in the faculty scholarship collection. These books were written by CSU faculty focusing on their diverse research interests. A number of the e-books focusing on the history of

greater Cleveland and Northeast Ohio have been digitized from originals held by the Michael Schwartz Library Special Collections, and a few were born digital. There are also collections for CSU alumni publications, books for sale by the library, and books published through the Michael Schwartz Library Academic Endeavors.

However, the full-text is not available for all books in the repository's collections. In these cases, a link to the full-text or "find at the library" is included. Books might be purchased based on high meta-data page hits if they are not already owned by the Michael Schwartz Library. This data can be downloaded as an Excel spreadsheet through our institutional repository Digital Commons Dashboard.

ACCESS POINT: FACULTY EXPERTISE

As mentioned earlier, CSU subscribes to bepress's SelectedWorks to create professional profile pages for faculty, including their areas of research, expertise, or research interests. Many institutional repositories in general typically include a faculty expertise component. Again, various means can be implemented to capture and export this data, depending on the infrastructure of one's institutional repository. For CSU, reports including this information can be generated using the bepress Dashboard (see figure 20.2). For example, we can identify that one faculty member's research interest is "narrative realism." Keyword or subject searches in an ILS or knowledge base can show how extensive and current a library's holdings are in these areas.



Figure 20.2 This image shows a portion of our bepress institutional repository dashboard. This dashboard also provides a means to download specific titles to Excel to analyze downloads and usage in more depth.

FURTHER INSTITUTIONAL REPOSITORY ANALYTICS

Analytics either provided by or pulled locally from an institutional repository as a whole can inform acquisitions librarians on such matters as what schools and departments produce the most scholarship, trends over time in scholarly output, and usage data.

Through a request sent to our institutional repository vendor, bepress Digital Commons, we obtain quarterly statistics customized according to our specifications. These customizations contain data in an Excel worksheet (see figure 20.3), including the following:

- Document type
- Original journal/publication, including citation information (date, volume, issue, pagination)
- Discipline(s)
- All-time downloads
- All-time page hits

Our institutional repository also provides a means to see at any time usage statistics via a data dashboard. One can filter by specific titles, departments, and schools, as well as adjust the date range (see figure 20.4).

Both statistical reports have their particular uses. In the former, we can do further data analysis in Excel to see what works, authors, and departments have the most usage, and trends over time. We can also filter specific journal publications and disciplines (see figure 20.5).

As with identifying what publications authors are citing in their works, we can use this data to see what publications and presses authors are publishing in and whether we have access to them. If not, particularly for those that get the most use, we can use this information in making purchasing decisions.

In the latter usage report obtained from bepress Digital Commons, we can see in graphical representations use over time for particular works, or within departments and colleges (see figure 20.6). These reports can be exported to Excel for further analysis, including trends over time and comparisons between departments.

Original Journal/Publication	Volume	Issue	First Page	Last Page	Keywords	Disciplines	Publication	Publication Date	Date Posted	All-time Downloads	All-time Metadata Page Hits
Journal of Experimental Psychology, Human Perception and Performance	33	2	410	424	hemisphere asymmetries, specificity effects, indexical information, spoken word recognition	Communication Sciences and Disorders Medicine and Health Sciences Speech and Hearing Science	Psychology Faculty Publications	1/1/2007	12/23/2013	218	5

Figure 20.3 Abridged view of data supplied by bepress Digital Commons.

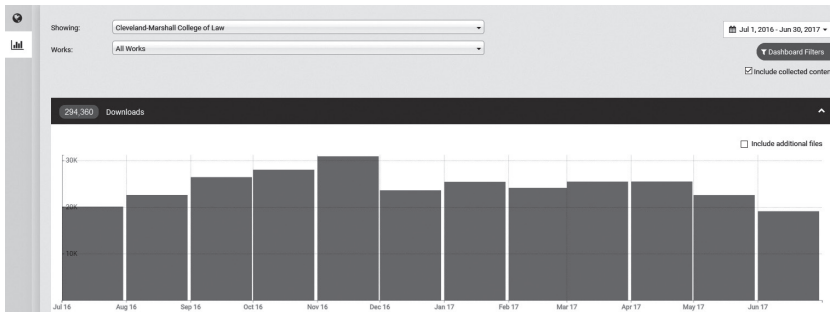


Figure 20.4 Snapshot from bepress Digital Commons usage statistics.

A	B
All-time Downloads	(Multiple Items)
Disciplines	(Multiple Items)
Row Labels	
Brigham Young University Law Review	
Brooklyn Law Review	
Capital University Law Review	
Cleveland State Law Review	
Georgia Law Review	
Loyola Law Review	
Nebraska Law Review	
North Carolina Law Review	
Sociological Quarterly	
Texas Journal on Civil Liberties & Civil Rights	
University of Toledo Law Review	
(blank)	
Grand Total	

Figure 20.5 Snapshot of top journals used in law.

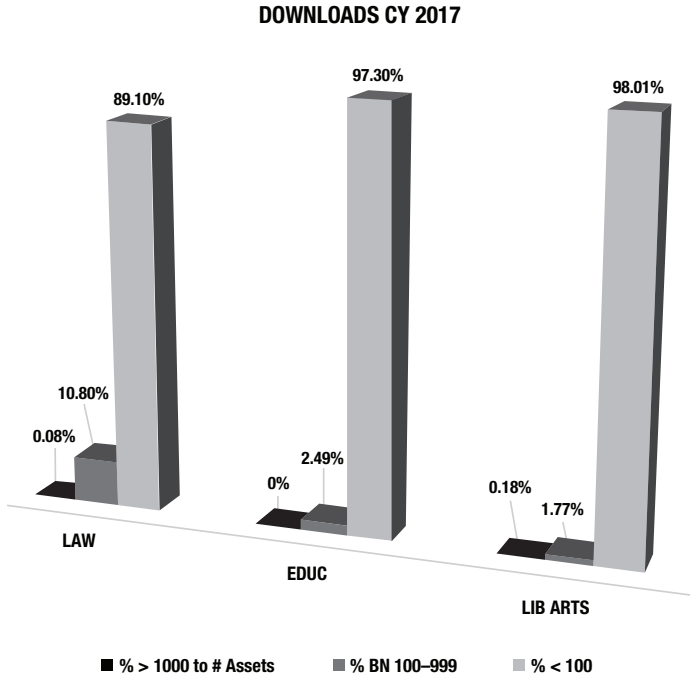


Figure 20.6 Comparing downloads between programs.

In doing this kind of analysis, we take into consideration the number of assets in each school or discipline in proportion to the number of downloads and hits to account for variations in the number of assets departments submit to the repository. This analysis gives a fairer account of how much a school’s work is being accessed and may be especially helpful if libraries are dealing with stressed budgets. In other words, if this analysis shows that one school or program has had more access than another, then Acquisitions may determine that more monies should be invested in those that are more heavily used.

Data analysis of usage on specific institutional members’ works can be insightful for acquisitions decisions (see figure 20.7). Here, we’re not concerned with individual names but rather with rank and department affiliation. If the data show that some departments or ranks are more represented than others, this may tell us that there needs to be further outreach toward those departments and ranks that are underrepresented. Outreach efforts are important for Acquisitions

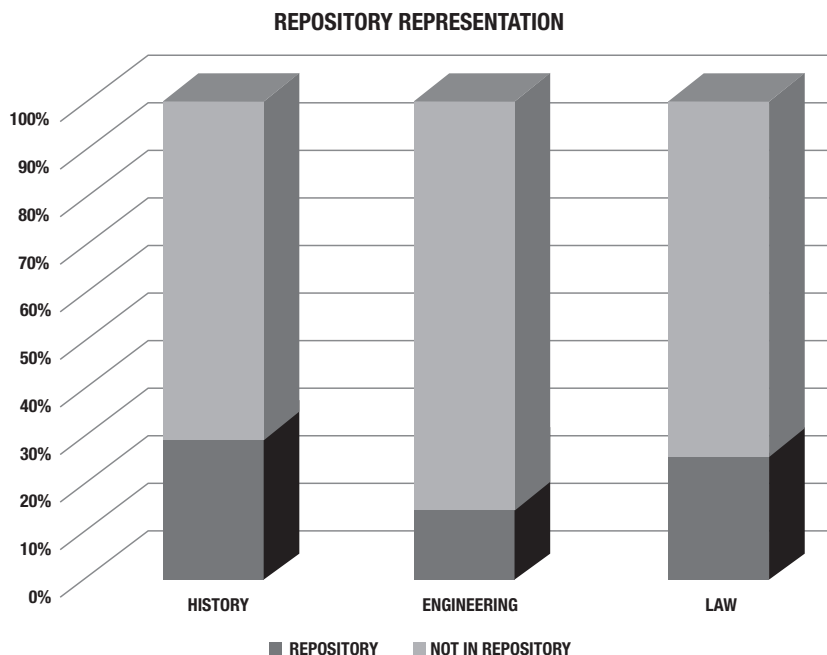


Figure 20.7 Repository representation sample.

to shed further light on whether there needs to be more collaboration with certain departments or programs to promote, store, and distribute their work and solicit feedback from them on their collections needs.

OPEN EDUCATIONAL RESOURCES IN INSTITUTIONAL REPOSITORIES

Open educational resources are “teaching, learning or research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation, and distribution.”²⁰ With the rising costs of tuition and textbooks, open educational resources are becoming increasingly important.

In February of 2014, the then president of the Cleveland State University Student Government Association (SGA) talked about textbooks at a Faculty Senate meeting. Students wanted greater consistency

across a course and all textbooks on course reserve in the library. The provost also discussed textbook costs and asked for options. Then, the SGA executive board called for standardized textbooks across sections (such as math and other general education courses).

That April, the Student Life Committee annual report included exorbitant prices for required textbooks, how prices were rising greater than inflation, the idea for incentives for professors to submit orders to the bookstore in a timely fashion, and renting textbooks as an alternative to purchasing them. These topics were discussed but no charges or specific instructions were given at the time.

Even though CSU doesn't have a formal Open Access policy statement, Open Access helps the library support students. Our director made the investment of time and energy in Open Access as a strategic initiative for the library to better serve students and faculty. This translated into goals for librarians and new collaborations within the university.

We have a small but growing collection of open educational resources created by CSU faculty in our institutional repository, including a virtual workbook for our Introduction to Geography course and several physics lectures. We also link to a few reputable open educational resources collections to help faculty get started when searching for quality open textbooks.

We link to OpenStax College (<https://openstax.org/about>), an initiative of Rice University, that hosts a collection of high-quality, peer-reviewed textbooks. They advertise them as professional quality textbooks that meet standard scope and sequence requirements. Faculty can customize them as needed for their specific course.

CSU is a member of the Open Textbook Network (<https://research.cehd.umn.edu/otn/>) which sponsors the Open Textbook Library (<https://open.umn.edu/opentextbooks/>). These textbooks have been reviewed by faculty from a variety of colleges and universities to assess their quality. They can be downloaded for no cost or printed at low cost.

We also link to bepress's Teaching Commons (<http://teachingcommons.us/>). Teaching Commons brings together high-quality open educational resources that are curated by librarians and their institutions and includes Open Access textbooks, course materials, lesson plans, multimedia, and more. This user-friendly collection can be browsed by type of resource or subject area.

Another way we are promoting open educational resources is through textbook affordability small grants. With the provost's support, the library has partnered with the Center for eLearning, the Center for Instructional Technology and Distance Learning, and the Center for Faculty Excellence to offer grants to CSU faculty to adopt low- or no-cost course materials. Faculty can adopt an existing open textbook; review an existing open textbook found in the Open Textbook Library; revise, remix, or adapt an existing textbook or open educational resource to enable a fully open course; or make use of materials that are Open Access or licensed through the library. They receive half of the funding up front and the balance when they complete the project and provide a report evaluating the impact on student learning at the end of the course.

Initiatives such as these are not unique to CSU. Use and acceptance of open educational resources is increasing, and many libraries are already involved with open educational resources initiatives on campus.²¹

OPEN EDUCATIONAL RESOURCES: CONNECTIVITY TO ACQUISITIONS

When conducting research or navigating copyright while revising, remixing, or writing their own open educational resources, faculty have the support of their liaison librarians. From this, acquisitions librarians can learn what research areas and software packages are needed for editing existing or creating new open educational resources.

Traditionally, libraries have not purchased textbooks to add to their collections. The Michael Schwartz Library has recently partnered with the bookstore to provide access to e-books owned by the library that are assigned for current courses and has also created a new Textbook Center offering a limited selection of print textbooks required for some general education classes.

These initiatives help inform acquisitions librarians as to which e-book packages to subscribe to or purchase. Acquisition librarians can also take open educational resources into consideration by keeping up-to-date on current and forthcoming open educational resources in the institutional repository.

CONCLUSION

A university's institutional repository provides many access points to mine data and, in so doing, assists in acquiring new content. For example, an institutional repository provides information on where faculty and students are publishing their scholarly work, what sources they are citing, and what their areas of interest are by way of the expertise of keywords and subject identifiers from their scholarly work. These access points further inform acquisition analysis and decisions. Libraries can use open source tools and homegrown scripts, in addition to statistical reports provided by some commercial products, to obtain such information and run this data against current holdings. Of course, it is recommended that thorough project planning be undertaken as early as possible in the process to identify what specific access points a university wants to have in its institutional repository and what processes would be involved in gathering data from these access points. The information found in institutional repositories can be invaluable in providing materials and resources that faculty and students use and rely on for their scholarly work.

ACKNOWLEDGMENTS

Special thanks go to Justin Grogan-Myers for his technical assistance and support of CERMINE, Elasticsearch, and Kiban.

NOTES

1. Eric M. Hanson, Paul W. Lightcap, and Matthew R. Miguez, "Acquisitions Everywhere: Modeling an Acquisitions Data Standard to Connect a Distributed Environment," *Proceedings of the Charleston Library Conference* (West Lafayette, IN: Purdue University, 2015), <https://doi.org/10.5703/1288284316250>.
2. Anabel Bonilla-Calero, "Institutional Repositories as Complementary Tools to Evaluate the Quantity and Quality of Research Outputs," *Library Review* 63, no. 1/2 (2014): 47, <https://doi.org/10.1108/LR-05-2013-0058>.

3. Rick Anderson, "Future-Proofing the Library: Strategies for Acquisitions, Cataloging, and Collection Development," *Serials Librarian* 55, no. 4 (November 2008): 560, <https://doi.org/10.1080/03615260802399908>.
4. Joan Giesecke, "Institutional Repositories: Keys to Success," *Journal of Library Administration* 51, no. 5–6 (July 2011): 529–42, <https://doi.org/10.1080/01930826.2011.589340>.
5. Anne Morrow and Allyson Mower, "University Scholarly Knowledge Inventory System: A Workflow System for Institutional Repositories," *Cataloging & Classification Quarterly* 47, no. 3/4 (May 2009): 288, <https://doi.org/10.1080/01639370902737307>.
6. Barry B. Baker and Brian Quinn, "Collecting for Digital Repositories: New Ways to Disseminate and Share Information. A Report of the Program Presented by the ALCTS Collection Development and Electronic Resources Committee, American Library Association Annual Conference, Chicago, July 2009," *Technical Services Quarterly* 27, no. 3 (2010): 290, <https://doi.org/10.1080/07317131003766108>.
7. Andrew Wesolek, "Who Uses This Stuff, Anyway? An Investigation of Who Uses the DigitalCommons@USU," *Serials Librarian* 64, no. 1–4 (January 2013): 300–301, <https://doi.org/10.1080/0361526X.2013.760298>.
8. Giesecke, "Institutional Repositories: Keys," 542.
9. Steven Douglas and Michelle Flinchbaugh, "Acquisitions and the Digital Repository," *Against the Grain* 23, no. 3 (2011): 61, <https://mdsoar.org/handle/11603/190>.
10. Doralyn Rossmann and Kenning Arlitsch, "From Acquisitions to Access: The Changing Nature of Library Budgeting," *Journal of Library Administration* 55, no. 5 (July 2015): 394–404, <https://doi.org/10.1080/01930826.2015.1047279>.
11. David Lewis, "From Stacks to the Web: The Transformation of Academic Library Collecting," *College & Research Libraries* 74, no. 2 (March 2013): 162, <https://crl.acrl.org/index.php/crl/article/view/16292/17738>.
12. H. Anil Kumar and Mallikarjun Dora, "Citation Analysis of Doctoral Dissertations at IIMA: A Review of the Local Use of Journals," *Library Collections, Acquisition and Technical Services* 35, no. 1 (March 2011): 33, <https://doi.org/10.1080/14649055.2011.10766290>.
13. Ruth Geraldine Hoskins, "The Influence of Open Access on Journal

- Cancellations in University Libraries in South Africa,” *Electronic Library* 31, no. 5 (January 1, 2013): 590, <https://doi.org/10.1108/EL-10-2011-0142>.
14. Ilkka Tuomi, “Open Educational Resources and the Transformation of Education,” *European Journal of Education* 48, no. 1 (March 2013): 59, <https://doi.org/10.1111/ejed.12019>.
 15. Zheng Ye (Lan) Yang, and Yu Li, “University Faculty Awareness and Attitudes Towards Open Access Publishing and the Institutional Repository: A Case Study,” *Journal of Librarianship & Scholarly Communication* 3, no. 1 (January 2015): 27–28, <https://doi.org/10.7710/2162-3309.1210>.
 16. Annie M. Gaines, “From Concerned to Cautiously Optimistic: Assessing Faculty Perceptions and Knowledge of Open Access in a Campus-Wide Study,” *Journal of Librarianship & Scholarly Communication* 3, no. 1 (January 2015): 1, <https://doi.org/10.7710/2162-3309.1212>.
 17. Jennifer Howard, “Scholars Seek Better Ways to Track Impact Online,” *The Chronicle of Higher Education*, January 29, 2012, www.lexisnexis.com/hottopic/lnacademic.
 18. Finbar Galligan and Sharon Dyas-Correia, “Altmetrics: Rethinking the Way We Measure,” *Serials Review* 39, no. 1 (March 2013): 60, <https://doi.org/10.1016/j.serrev.2013.01.003>.
 19. Stacy Konkiel and Dave Scherer, “New Opportunities for Repositories in the Age of Altmetrics,” *Bulletin of the Association for Information Science & Technology* 39, no. 4 (April/May 2013): 25, <https://doi.org/10.1002/bult.2013.1720390408>.
 20. “Communication and Information: Open Educational Resources,” United Nations Educational, Scientific, and Cultural Organization, accessed June 1, 2017, <https://en.unesco.org/themes/building-knowledge-societies/oer>.
 21. Joseph A. Salem Jr., “Open Pathways to Student Success: Academic Library Partnerships for Open Educational Resource and Affordable Course Content Creation and Adoption,” *Journal of Academic Librarianship* 43, no. 1 (January 2017): 35, <https://doi.org/10.1016/j.acalib.2016.10.003>.

PART 6

Consortial Acquisitions

EDITED BY LYNDA L. ALDANA AND CHUCK THOMAS

Library consortia have long encouraged resource sharing and coordinated collections management activities such as interlibrary loan programs, shared storage projects, and negotiated “buyers club” group pricing options for member libraries. All types of libraries are facing financial pressures in today’s economic environment, so consortia are more important than ever. The chapters in part 6 provide glimpses into some ways consortia leverage the resources, expertise, and creativity within individual libraries to achieve greater cost efficiencies and impacts for all.

In “Creatively Collecting: Leveraging the Power of the Collective to Benefit Our Local Collection,” librarians Tracie Ballock, Kirsten Ostergaard, and Amy Lee Heinlen from Duquesne University’s Gumberg Library, which is a member of the Pennsylvania Academic Library Consortium, Inc. (PALCI), share the benefits of consortial membership for their local collection management initiatives.

In their chapter “Laying the Groundwork for Long-Term Library Collaboration: A 10-Year Perspective From Florida’s State University System,” Claire Dygert and Rebecca Donlan demonstrate how a radical approach for the Florida State University system libraries’ collection development and acquisitions is just as relevant today as it was when they embarked on their journey to incorporate Janus Challenges into their collection management activities.

In “E-Resource Management Strategies for an Informal Consortium,” Rhonda Glazier and Sommer Browning, librarians from the Colorado University system libraries, focus on how they are collectively managing consortially acquired resources. In order for programs to be successful, sustainable management of the resources is necessary for a consortium to continue meeting users’ needs.

Finally, in “Data-Driven Journal Backfile Acquisition in the Digital Age,” librarians Youngim Jung, Hwanmin Kim, and Honam Choi from the KESLI Consortium, a nationwide South Korean consortium, discuss using data-driven approaches to facilitate consortium-supported purchases, specifically large backfiles of journals.

Creatively Collecting: Leveraging the Power of the Collective to Benefit Our Local Collection

Tracie Ballock, Kirsten Ostergaard, and Amy Lee Heinlen

INTRODUCTION

Twenty-first century collection management in academic libraries is characterized by new and evolving resource formats, user-driven feedback, stagnating or shrinking library collections budgets, and cooperative library ventures. The goal of supporting users' curricular and research needs remains unchanged but the means to do so are evolving. In order to succeed today, academic libraries must collaborate, and consortia are a key way to do so.

One such group is the Pennsylvania Academic Library Consortium, Inc. (PALCI), originally established in 1996 to support sharing of print resources among its member libraries. This book-sharing relationship, now called E-ZBorrow, has since expanded to include other coordinated resource sharing services through RapidILL and free reciprocal faculty, staff, and student borrowing privileges among select member libraries. PALCI facilitates cooperative purchasing of electronic resources from major vendors, such as Gale, ProQuest, Wiley, and many scholarly societies. PALCI works with vendors on initiatives for shared e-book collections through consortial DDA (demand-driven acquisition), EBA (evidence-based acquisition), subscriptions, and bulk purchasing programs. PALCI member libraries are currently working on cooperative collection development and management initiatives, such as remote storage, a shared serials archive, digital collections, and disaster planning. Since PALCI's

inception, its membership has now grown to nearly 70 academic and research libraries, private and public, in Pennsylvania, New Jersey, West Virginia, and New York. These institutions range from small liberal arts colleges to publicly funded universities and Association of Research Libraries (ARL) institutions, including the State Library of Pennsylvania and the Philadelphia Museum of Art Library. Libraries in PALCI have holdings in excess of 144 million and a combined FTE (full-time equivalent) of more than 500,000 students.¹

As a charter member of PALCI, Duquesne University's Gumberg Library continues to grow with the consortium as it evolves, offering exciting opportunities for collaboration and collection development. This chapter provides a case study of the benefits of consortial participation for Gumberg Library's local collection management.

LITERATURE REVIEW

Consortia function to foster collaboration, partnership, and sharing, principles that are central to librarianship. While the date of the first use of the term "library consortium" is not known, we do know that reports from the Co-operation Committee of the American Library Association appeared in the *ALA Bulletin* as early as the 1880s.² Melvin Dewey, also known as the father of modern librarianship, wrote on "Library Co-operation" in an 1886 issue of *Library Journal*.³ Librarians were not yet concerned with creating shared library collections and purchasing electronic resources, but they were trying to figure out how they could begin to share resources with each other in an effort to better serve their clients. For this reason, the first committees created were not about acquisitions or collections; they formed to develop standardization and cooperation in cataloging and indexing.⁴

As early as 1913–1915, one of the first recorded cooperative acquisitions programs occurred when Walter Lichtenstein, a librarian at Northwestern University, went on a South American buying trip. During his tour of 11 countries, he purchased 9,000 volumes, newspapers, and manuscripts for Harvard University Library and Law Library, John Carter Brown University, Northwestern University Library and Law Library, the John Crerar Library, and the American Antiquarian Society.⁵ Interestingly, Mr. Lichtenstein's concerns

regarding fair arrangements for finances and fair division of the collections are still relevant issues for consortia today.

We do not see much in the literature regarding consortia and acquisitions again until the 1930s when the Triangle Research Libraries Network of North Carolina (TRLN) was formed by the presidents of Duke University and the University of North Carolina. Their goal was to “ensure that 70 percent of the collections in each library were wholly unique, physically proximate, and able to offer both breadth and depth to local users.”⁶ TRLN is the oldest academic library consortium in the United States.⁷

Through cooperation, 21st-century libraries work together to acquire more comprehensive collections. When it comes to consortia, their power lies in the economies of scale, collective expertise, and purchasing power. For licensed electronic resources, the greatest benefit to consortial participation lies in the access provided to content that could not be purchased by individual libraries.⁸ In this way, collaboration need not overshadow the needs of local libraries but can become a means of better serving library users.⁹ Consortia have the power to capitalize on these traits for the benefit of each individual library’s collection as well as for the larger, networked collection.

For Duquesne University’s Gumberg Library, the objective of consortial participation has always been about leveraging the power of the collective. We provide access to resources and services for our library patrons, as well as training and services for library staff that would otherwise be unaffordable on our own. In return, we can give back to the library community knowing that our active participation also benefits the other member libraries.

E-ZBORROW

The relationship with PALCI began in 1996, when Gumberg Library joined 35 other college and university libraries from around the Commonwealth of Pennsylvania to create PALCI’s Virtual Union Catalog and Patron Direct Request System, which became known as E-ZBorrow in 2003. This expedited interlibrary loan service allows students, faculty, and staff at participating institutions to discover and borrow books and other library materials from each member library’s unique collection.

Shortly after the program transformed into E-ZBorrow, the University of Pennsylvania (Penn) created a centrally managed data warehouse containing selected bibliographic and usage information, which the university called the Penn Library Data Farm. This houses all of the relevant data such as borrowing and lending institution, patron type (faculty, graduate, undergraduate, and staff), author, title, publisher, publication date, ISBN, and call number. No identifiable patron information is stored. The information collected proves an invaluable resource for collection development. Using this “data farm,” libraries can run queries to see what their library is borrowing and lending over a specific time period. The reports appear in an Excel spreadsheet, allowing for easy manipulation of the data. Collection development can analyze the data to see which Library of Congress (LC) Classification numbers are the most borrowed, highlighting areas of the collection that may need to be strengthened. Quite often in our case, we look for specific titles borrowed multiples times in an effort to obtain the appropriate number of copies or possibly an e-book for our own collection.

Gumberg Library also values knowing what we lend to other institutions. The data farm information helps us to identify unique materials in our collections, as well as areas of our collections that other institutions depend on us to maintain. For these reasons, this data becomes important when weeding areas of the collection. Historically, libraries in the United States have had a strong concept of cooperation, which is the foundation of a successful library consortium.¹⁰ Because we rely on other institutions to assist in supporting the research needs of our patrons through interlibrary loan (ILL) and resource sharing, we ensure that we maintain collections that support the needs of libraries who depend on us.

COOPERATIVE PURCHASING OF E-RESOURCES

In the mid-1990s, libraries faced a new and exciting challenge: the emergence of electronic information resources. The birth of the World Wide Web forced librarians to rethink their traditional role as keepers of collections of books, manuscripts, journals, and other scholarly resources. Librarians transformed into information specialists or experts in helping patrons gain access to needed information. At that time, the research habits and expectations of library users also changed

as they began to expect electronic access with full-text, accessible from remote sites outside the walls of the library.¹¹ This presented an even greater challenge for library acquisitions departments, who worked with publishers/vendors to identify available electronic resources, negotiate terms of use/license agreements, and then figure out how to pay for these costly subscriptions. These changes created new opportunities for existing library consortia, as well as for the creation of new consortia, thus the “buying club model” was born. With this model, a consortium negotiates pricing with publishers/vendors for all participating libraries; the pricing often will be a better deal for each library as more libraries commit to the deal.

Gumberg Library participated in consortial electronic resource purchasing at its inception and continues whenever possible through both PALCI and other consortia such as Lyris. Unlike PALCI, Lyris, established in 2009, is an international consortium providing services and support, as well as discounted pricing for products, supplies, and electronic resource subscriptions, to archives, libraries, and museums. The value of belonging to both organizations goes well beyond just pricing. In most cases, the power of consortia lies in their ability to negotiate multiyear deals that lock in lower yearly inflation rates. This model benefits libraries locally when predicting and managing yearly budget expenditures, especially when library budgets are not growing at the same rate as most subscriptions’ inflation. Working through consortia also negates the need for our acquisitions department to negotiate pricing and licensing every year, an extremely time-consuming process when subscribing to approximately 200 different electronic resources. Through many of these deals, Gumberg Library gains access to more content than we would had we worked directly on our own with the publisher/vendor.

PALCI’S CHANGING ROLE: NEW OPPORTUNITIES FOR MEMBER LIBRARIES

In 2007–2008, PALCI began work on a new strategic plan to include additional resource sharing models (i.e., lending through RapidILL), cooperative collection development and management, preservation, and disaster preparedness. As this plan began to take shape, several new committees formed, including the Cooperative Collection

Development Task Force, the Distributed Print Archive Steering Committee, the Disaster Planning Working Group, and the E-Books Task Force (EBTF). Gumberg Library actively participates in the PALCI organization, with library staff sitting on committees and user groups. In addition to this already committed role, our library director joined the PALCI Board of Directors, an elected position. This provided our institution with fresh opportunities to contribute suggestions and shape initiatives that would benefit the collective and us. Over the past 10 years, our participation in the new services and programs offered to the PALCI member libraries has been beneficial in numerous ways.

RAPIDILL POD

The PALCI RapidILL Pod, launched in 2008, now consists of 39 member libraries, including Gumberg Library. RapidILL functions as an unmediated resource sharing system with a service standard of 24-hour delivery for articles and book chapters. In fiscal year 2015–2016 we received 5,176 articles from other RapidILL PALCI institutions. This invaluable service supports collection management by supplementing our collection through quick and easy access to numerous resources for which we do not subscribe, allowing us to use our limited budget on other much-needed resources.

DISTRIBUTED PRINT AND MICROFILM ARCHIVES

In 2009, after several years of discussions, the Print Archive Steering Committee organized distributed “light” and “dark” archives.¹² This consists of 46 print journals for science publications from the American Institute of Physics (AIP), the American Physical Society (APS), and the American Chemical Society (ACS). Several member libraries expressed anxiety about discarding the print for these titles, even though many of them had electronic access. At that time, some faculty working on research had complaints about image quality with

the electronic format. Fourteen member institutions signed a 10-year agreement, stating that they would commit to keeping specific titles in either light or dark storage and would provide access to, scan, or copy requested articles for any PALCI member library. This project enabled many other PALCI libraries to discard these print titles from their collections, freeing up valuable space, while securing future access for researchers. As libraries withdrew these volumes, they assisted the 14 participating libraries by filling in gaps and assuring complete runs for each title in the archive. Working within this cooperative model, Gumberg Library committed to housing eight print journal titles in our compact shelving open to our patrons as part of the distributed light archive.

Out of this initiative grew additional distributed archive projects such as newspapers on microfilm, which includes the *New York Times*, *Wall Street Journal*, *London Times*, and *Philadelphia Inquirer*, APA (American Psychological Association) print journals, and a print reference sets archive. Based on consensus survey results, PALCI members identified print reference sets and annuals for distributed archiving. Titles in this archive include, but are not limited to, *CQ Almanac*, *Europa World Year Book*, *Handbook of U.S. Labor Statistics*, *Statistical Abstract of the United States*, and the *World Almanac*.

The committee working on the microfilm project developed new terms for this agreement. The committee asked that libraries commit to keeping these holdings for 25 years, maintain materials in a light archive, provide both a scanning service via ILL and loaning of reels to member libraries, confirm their holdings by making sure no reels were missing, and add notes to their local catalog identifying the title as being retained as part of a long-term commitment for the PALCI distributed archive.

Gumberg Library considered participating in the microfilm project until the release of the commitment details. At that time, already engaged in dual weeding projects that involved microfilm and an oversized collection to free up much-needed space, we could not make such a long-term commitment. However, because of these consortial projects, we made additional weeding decisions concerning all of the different formats, reassured by other member libraries' commitment to the terms above on behalf of the membership.

PALCI DDA AND EBA PROJECTS

As the consortium's new strategic initiative of cooperative collection development grew, so did the notion of creating a "PALCI collective collection." The objective: to develop a core collection of e-books accessible to all member libraries that would complement, as well as supplement, the consortium's other resource sharing services. In October 2012, in an effort to achieve this goal, the PALCI Board of Directors charged a team of PALCI staff and four volunteers from member libraries with examining different vendors and models for e-books such as PDA or leasing, determining content priorities, and recommending a plan to address this need on behalf of the membership. So began the E-Books Task Force, otherwise known as the EBTF, which is still active today.

After many meetings and much investigation from the EBTF, PALCI's first DDA project launched as a pilot in February 2014. Member libraries could opt in using either ProQuest's ebrary or EBSCO e-books as their content provider. E-ZBorrow user information gathered from the Penn Library Data Farm informed the title pools of the pilot project. With a goal to create a shared collection, any title with significant usage triggered a purchase for all participating libraries. This project excited Gumberg Library's Collection Management Department, as well as the head of Collection Management, who was a member of the EBTF. Up until this time, attempts at selling the concept of DDA to some of their library colleagues remained unsuccessful. This project presented a consortially backed opportunity for a proof of concept pertaining to DDA. Gumberg Library opted to participate in the pilot using the ebrary platform so as not to negate time and funds previously invested in purchasing e-books through ebrary, as well as subscribing to the Academic Complete e-book collection. Our library used traditional print collection development techniques, such as Choice cards, book reviews, and faculty requests for the selection of e-books through our ebrary platform. Usage data showed little to no use for these titles. Participating in this project helped sell the DDA concept locally by demonstrating the positive impact of opening access to thousands of e-book titles without the obligation of purchasing every one of them. In the end, a review of the triggered PALCI titles revealed that in most cases titles used by library patrons were

quality additions to our collections. In addition, many titles showed high usage at different member libraries.

After this first pilot, Gumberg Library decided not to participate in the next PALCI DDA program, which ran from October 2014 through April 2015. Instead, we opted to work directly with ProQuest's ebrary platform on a much larger DDA project specifically for Duquesne University. We wanted this project to run for the entire school year, as well as offer a much larger pool of titles. In an effort to keep it simple, the PALCI EBTF decided to allow any member library who chose not to participate in the second DDA project to remain in the group. These libraries could not trigger any purchases but, in the end, received access to the titles purchased by their group. The EBTF also hoped that by doing this some of these libraries would reconsider participating the following year. Even though we did not participate, we still gained access to the 441 ebrary titles purchased.

Parallel to this, our library migrated to Innovative Interfaces, Inc.'s, Sierra integrated library system (ILS) using its Encore Discovery Solution with EBSCO Discovery Service (EDS) indexing. It made sense to switch to the EBSCO DDA group for the next two years. Once again, this allowed us to test the DDA process with the vendor, whose indexing was running on the backend of our discovery layer without much management on the part of our staff.

In many ways, the EBTF saw the ebrary/EBSCO pilot as a success. However, since only about half of the member libraries participated in this program, it still did not meet the goal of creating a consortium-wide collective e-book collection. In response to this, the task force submitted a new proposal to the PALCI Board of Directors requesting funds to pilot a JSTOR DDA e-book program that would include all member libraries at no cost to them. This model provided access to approximately 30,000 titles on the Books at JSTOR platform, and titles with high-demand use of chapters would trigger purchases. A new concept for JSTOR, it utilized PALCI as its DDA test case, and with this model a triggered title would purchase a copy of the book for each library. Once again, the hope was to show proof of concept and create buy-in to participate from the membership. The PALCI Board agreed to this proposal and funded the project for the spring 2015 semester.

Duquesne University is a charter member of JSTOR as an early adopter of its Arts and Sciences scholarly journal collections, and the

addition of the JSTOR DDA emerged as a particularly beneficial program for Gumberg Library. Through our usage data, we know that Duquesne patrons heavily use the JSTOR databases. The usage data for the JSTOR e-book pilot was no different. Duquesne University ranked as the 8th highest user out of 69 libraries, just below much larger institutions like New York University (NYU), University of Pennsylvania (Penn), and Temple University (see table 21.1).

Given such positive feedback, we immediately signed on for the fall 2015–spring 2016 JSTOR program. Recognizing that our patrons naturally gravitate to JSTOR resources, and also knowing that substantial use of an item would trigger a purchase for each participating library, the head of Collection Management reviewed the usage data to identify titles of interest to the Duquesne University community. Originally we planned to purchase some of the titles on the ebrary platform in order to continue our ongoing investment. However, we quickly realized that though many of the titles were already available to our patrons on other platforms, they chose to use them on the JSTOR platform. When all of the usage data was compiled, Duquesne University ranked as the 5th highest user out of 49 libraries.

For fiscal year 2016–2017, PALCI moved away from JSTOR’s DDA model and moved to its evidence-based acquisition (EBA) model, which ran from October 2016 to May 2017. With this model, the

TABLE 21.1 Sample JSTOR Usage

Institution	Number of Titles Used	Number of pdfs Viewed	Number of pdfs Downloaded	Total Views and Downloads
New York University	8,597	17,654	9,089	26,743
University of Pennsylvania	6,298	12,340	10,213	22,553
University A	3,568	5,906	9,333	15,239
University B	4,114	7,730	4,513	12,243
Temple University	3,284	6,460	3,317	9,777
University C	2,163	3,907	1,999	5,906
New School	1,686	2,909	1,749	4,658
Duquesne University	1,745	3,246	1,231	4,477

consortium agreed to spend a certain amount of money with JSTOR after nine months of unlimited access to approximately 25,000 backlist titles. At the end of that time, PALCI reviewed the usage data to make informed decisions when selecting perpetual access titles for purchase on behalf of the participating libraries. PALCI purchased a total of 80 titles. The consortium based purchasing decisions on the following criteria: titles used by the greatest number of PALCI institutions received highest priority, followed by titles most used overall (10). During those nine months, our patrons viewed 1,996 unique titles, 47 of which the consortium purchased.

In addition to the EBA program, JSTOR extended a special offer to PALCI members participating in the PALCI JSTOR EBA program for participation in a DDA program that provided a deep discount off list prices for any JSTOR titles not included in the EBA program. This enticed our library to set up a DDA program directly with JSTOR for all of its frontlist content.

While the EBTF was busy negotiating e-book programs with ebrary, EBSCO, and JSTOR, the PALCI Streaming Video Working Group focused on a pilot project of its own. In January 2016, the PALCI Board of Directors once again approved use of PALCI funds, this time for a streaming video pilot with Swank's Digital Campus. This project ran from February through June 2016, giving unlimited streaming access to 300 of Swank's most ordered films, which included popular feature films, documentaries, and foreign language films. This provided Gumberg Library with the opportunity to pilot streaming media, a new format for our library, with no out-of-pocket cost to us.

Ultimately, the Swank video model was not financially sustainable by the PALCI member libraries and PALCI discontinued the program. Despite not moving ahead with Swank, the benefits of a PALCI-run project resulted in exposure to a new format type that led to exploration locally at our library. To help us assess Swank and the viability of streaming media at Duquesne University, we created a campus-wide survey. Gumberg Library received mixed reviews. Some expressed displeasure with the selection of available films; several requested more educational films, while others were upset when the pilot was over and they no longer had access.

During the pilot, Ambrose Video, who was working closely with Lyrasis to get its video database into as many libraries as possible for

extremely reasonable pricing, contacted us. After seeing the demo, we thought this resource could meet the needs of some of our faculty and graduate students who were looking for more educational and scholarly video content. We utilized our Lyris membership to obtain extremely favorable pricing and added Ambrose Video as one of our first streaming video subscriptions. After receiving feedback and reviewing usage data throughout the first year, we realized this product does not meet all of our needs. Since that time, Collection Management continues to work with the librarian liaisons to identify and trial several streaming video vendors with the goal of adding additional streaming video content to our collection this fiscal year. In summation, the offer of a streaming media service through PALCI resulted in a new resource type to the Duquesne University community and additional local exploration to find a good fit.

Throughout 2016 and into 2017, PALCI continued to negotiate with ebrary and EBSCO to obtain access to as much content as possible with the goal of access for the entire membership. After some research, the EBTF found that over half of the PALCI libraries had current subscriptions to either one or both of these vendors' e-book products. This meant that PALCI libraries spent an exorbitant amount of money for all of these individual subscriptions. Now, the question was, could PALCI negotiate an all-in PALCI subscription e-book deal with one of these vendors for the same amount of money or possibly less? In fall 2016, the consortium set up free trial access to both vendors' subscription e-book products: ebrary Academic Complete and e-books on EBSCOhost. This allowed members who did not have access to these products to become familiar with the content and platforms. Already subscribers of Academic Complete, we could not predict how any future deal might affect us. In January 2017, we transferred our individual ebrary subscription over to PALCI for a three-year deal. This provided us with additional e-book content, including College Complete, University Presses, and Reference Books, for slightly less money and resulted in a savings for us. In addition to all 70 libraries having access to this content, the PALCI price included the perpetual ownership of two historical Pennsylvania newspapers: the *Philadelphia Inquirer* (1829–2009) and the *Pittsburgh Post-Gazette* (1786–2008). Perpetual access to the *Pittsburgh Post-Gazette* archives meant that we could once again dispose of microfilm, getting us one step closer to clearing valuable space of large microfilm cabinets.

Most recently, we took advantage of a deal PALCI negotiated with EBSCO for deeply discounted, perpetual access to digital magazine archive titles. Once again, we compared the available titles to our microfilm and print journal holdings to see what we could possibly discard by participating in this deal. In the end, we purchased the *Time* magazine archive, which runs from 1923 to 2000 and covers more than 4,000 issues. This allowed us to clear seven shelves of print journals from our compact shelving and several drawers of microfilm. We also purchased *Life* magazine, which runs from 1936 to 2000 and covers more than 2,200 issues. Although, *Life* did not allow us to discard as much content, we still removed two shelves of print journals and some microfilm. The purchase of both archives provided us with the ability to view each magazine, beginning with volume 1, in its entirety, including the table of contents and advertisements. It also permitted us to use one-time funds since this was not a subscription.

OVERALL BENEFITS

The library literature can provide us with many examples of the benefits of participating in consortia, and we have touched on many of them in this chapter. For us here at Duquesne University, our relationship with our consortia, especially PALCI, has more value added than just what appears in the literature. One of the biggest savings to all libraries is the amount of staff time our PALCI membership saves each individual library. For every one of the projects detailed in this chapter, many hours of work went on behind the scenes by PALCI staff and volunteers from member libraries. These groups regularly send out surveys where member libraries state areas of interest and/or need. For each specific project, committee members then contact and meet with several vendors with the goal of meeting certain criteria beneficial to the entire membership. From there, PALCI schedules two or three informational webinars to answer any questions and create buy-in for the project. Once completed, the negotiations begin. At the beginning of each project, the PALCI staff gather all necessary information specific to the different integrated library systems and work with libraries to ensure functionality and access. They also troubleshoot problems and place relevant information on the PALCI website.

At the end of each project, they gather and supply very detailed usage data to all participants for future decision-making.

The true benefit to our library lies in our ability to try different products and interfaces, formats, and access models that are new to our patrons with rather low stakes for librarians. There are several reasons that our Collection Management Department continues to see this as a huge opportunity for us. In some cases, these new models meet with a little hesitation from library staff, while some of the interfaces and formats do not find favor with faculty or students. For these reasons, our work with the consortium provides us the opportunity to try something new, knowing that we might not participate in subsequent years depending on usage and popularity of a program. In addition, the amount of time invested by our library staff, as well as the amount of money, is much less than if we coordinated these projects locally. Of course, we cannot devalue the amount of additional content we gain access to, as well as the money saved through these collective purchasing opportunities. Finally, the knowledge that is gained through working collaboratively with colleagues from all different types of libraries is invaluable.

WHAT'S NEXT?

Consortia have demonstrated benefits in buying power, licensing electronic resources, resource sharing agreements, training and expertise, professional networking, and many new initiatives with cooperative collection development. Perhaps the next step in the evolution of consortia is supporting conversations about strategic collection development among participating libraries. The infrastructure of consortia lends the necessary framework for systematic assessment of local collections. Collection analysis could then result in the creation of informed, focused local collections that are part of a larger whole. The benefits of a data-driven initiative would include freeing up local funding for new endeavors or supporting the development of special niche collections and subject areas specific to each institution and weeding excess resources in favor of effective and reliable consortial lending agreements. Twenty-first-century academic libraries need to operate more like networks, creating collections that complement each other

rather than duplicating efforts and wasting valuable resources. Let us work smarter together in a mutually beneficial relationship.

NOTES

1. “An Overview of PALCI,” PALCI, accessed August 15, 2017, <http://www.palci.org/overview/>.
2. James J. Kopp, “Library Consortia and Information Technology: The Past, the Present, the Promise,” *Information Technology and Libraries* 17, no. 1 (1998), <http://search.proquest.com.authenticate.library.duq.edu/docview/215831831/fulltextPDF/ECDE2ADD082548B9PQ/1?accountid=10610>.
3. Melvil Dewey, “Library Co-operation,” *Library Journal* 11, (1886), 5.
4. David C. Weber, “A Century of Cooperative Programs Among Academic Libraries,” *College & Research Libraries* 37, no. 3 (May 1976): 206, <http://crl.acrl.org/index.php/crl/article/view/12844/14290>.
5. Ralph D. Wagner, “Walter Lichtenstein in South America: Books, Voyages, and the End of a Career,” *Libraries & Culture* 23, no. 3 (1988), <https://www.jstor.org/stable/25542070>.
6. Uma Hiremath, “Electronic Consortia: Resource Sharing in the Digital Age,” *Collection Building* 20, no. 2 (June 11, 2001): 80, <https://doi.org/10.1108/01604950110388716>.
7. “History of TRLN,” TRLN, accessed August 15, 2017, <http://www.trln.org/about/history-of-trln/>.
8. Christine N. Turner, “E-Resource Acquisitions in Academic Library Consortia,” *Library Resources & Technical Services* 58, no. 1 (2014): 37, <https://doi.org/10.5860/lrts.58n1.33>.
9. Laura Kinner and Alice Crosetto, “Balancing Act for the Future: How the Academic Library Engages in Collection Development at the Local and Consortial Levels,” *Journal of Library Administration* 49, no. 4 (May 29, 2009): 421, <https://doi.org/10.1080/01930820902832561>.
10. Sharon L Bostick, “The History and Development of Academic Library Consortia in the United States: An Overview,” *Journal of Academic Librarianship* 27, no. 2 (2001): 128–30, [https://doi.org/10.1016/S0099-1333\(00\)00185-3](https://doi.org/10.1016/S0099-1333(00)00185-3).
11. Hiremath, “Electronic Consortia: Resource Sharing in the Digital Age,” 80–81.

12. *California Digital Library Glossary, s.v.* “Light Archive,” accessed on September 15, 2017, <http://www.cdlib.org/gateways/technology/glossary.html>; *California Digital Library Glossary, s.v.* “Dark Archive,” accessed on September 15, 2017, <http://www.cdlib.org/gateways/technology/glossary.html>.

Laying the Groundwork for Long-Term Library Collaboration: A 10-Year Perspective From Florida's State University System

Claire Dygert and Rebecca Donlan

Ten years ago, the collection managers of the Florida State University System libraries decided to pursue what was then—and still is—a radically cooperative approach to collection development and acquisitions, inspired by the Janus Conference on Research Library Collections organized by Ross Atkinson and held at Cornell University in October 2005. The Collection Planning Committee of the Florida State University System libraries embraced the six Janus Challenges, convinced of their utility as a collection management framework, and determined to put them into practice throughout the state university libraries. What made this idea seem practicable was a history of cooperation among the various state university libraries on a number of initiatives, led at the highest level by the Council of State University Library (CSUL) deans and by a number of different committees reporting to them, including technical services, public services, and collection development committees.

In 2006, there were 11 universities in the Florida State System, varying in age, type, and size, from Florida State University, founded in 1851, to Florida Gulf Coast University, which opened a mere 9 years prior, in 1997. Size of student body ranged widely as well, from more than 50,000 at the University of Florida (a research-intensive institution) to 746 at New College of Florida, the state's honors college. Although the 11 member universities (technically, 10 universities and one college) might have had very different needs and priorities, they did share a single integrated library system (ILS), administered by the

Florida Center for Library Automation (FCLA), centrally located in Gainesville, home of the University of Florida. In addition to regular committee meetings, annual joint meetings were held in Gainesville to bring together FCLA and library staff who determined ILS enhancements and established standard practices for circulation, interlibrary loan, and cataloging for the entire system.

EARLY CENTRALIZED COLLECTION DEVELOPMENT EFFORTS

The advent of funding intended for jointly held library databases from the Florida State Legislature led CSUL (or as it was known at that time, the State University Library Council) to establish its first collection development committee, the Electronic Collections Committee (ECC), in the early 1990s. In 2002, CSUL created the Collection Management Committee (CMC), comprised of the collection development heads of the state university libraries (SUL) and intended to take a higher-level perspective on collection building throughout the SULs, and the ECC became a subcommittee of the CMC. According to the minutes of the December 5, 2002, meeting of the State University Library Council, the deans charged the CMC to “look at the SUL collections as a whole. From the perspective of a ‘single library,’ the CMC will make recommendations for sharing, will identify issues, and will report to the SULC implications of their discussions.”¹

Among its other responsibilities, the CMC facilitated consortial licensing to Elsevier’s Science Direct based on the pooled title lists of all the member libraries, as well as Cambridge University Press, Oxford University Press, and Wiley. In this manner, the smallest institutions could afford access, if not archival rights, to hundreds of journals to which they could not otherwise subscribe. While all the libraries benefited from this arrangement, the burden of license negotiations fell to one or two of the CMC or ECC members, who found themselves spending much of their workday dealing with title list reconciliations, troubleshooting access problems, and negotiating the next license. In 2007, CSUL and FCLA hired a full-time specialist whose sole responsibility would be to work with the collection committees on e-resource negotiation and management. Having a point person at FCLA was the turning point for the CMC because it allowed

the members to stop working on the minutiae of licensing and title list management and to turn their attention to broader issues of collection development among the consortium.

JANUS CHALLENGES: A SUMMARY

In October 2005, the Janus Conference on Research Library Collections convened at Cornell University. Janus, the Roman god of gates and doorways, was chosen for the conference to “symbolize the passage toward a new way of thinking about collaboration and resource sharing for research collections.”² Presentations from a number of prominent collection development librarians examined the “shifting ground between writers and readers” from the thematic viewpoints of “legacy, technology, epistemology, and implementation.”³ Ross Atkinson, associate university librarian for collections at Cornell, set the scene for the afternoon breakout sessions with his presentation “Six Key Challenges for the Future of Collection Development.” These challenges were

1. *recon*—retrospective conversion of full-text sources already existing in print;
2. *procon*—accelerating the shift to digital publishing;
3. *core definition*—collective determination by research libraries as to which titles make up a discipline’s core;
4. *publisher relations*—research libraries working collectively, not separately, in negotiations with publishers;
5. *archiving*—preserving print and digital collections; and
6. *alternative channels for scholarly communication*—creating more effective methods of communication as alternatives or supplements to traditional scholarly publication.

JANUS CHALLENGES: ESTABLISHING AN INFRASTRUCTURE FOR COLLABORATION

In February of 2007, a discussion of the Janus Challenges was held at the biannual in-person meeting of the CMC, now called the Collection Planning Committee (CPC). From the report of those who had attended

the Janus workgroup updates at the recent ALA Midwinter Conference in Seattle, it was clear that little progress had been made on a national level, and these efforts were likely dead. Enthusiasm for the Janus Challenges remained high among members of the CPC, however, and a Janus Challenges Working Group was formed to explore the potential to address these challenges in Florida.

The working group consisted of individuals from 7 of the (then) 11 universities in the State University System (SUS).⁴ Led by two co-chairs, the group met in Gainesville in May 2007 to explore the opportunities that the Janus Challenges presented in Florida. The goal was “to use the structure of the Janus Challenges to propose a workable collection development and resources sharing plan for public research institutions in Florida.”⁵ Realizing that the Janus Challenges were seen as fairly radical by some, the group’s intent was to “recast the Challenges to what was doable”⁶ in order to bring the separate collections and collection development activities around the state together in a unified, strategic approach.

In the fall of 2007, the working group submitted a report, *Six Challenges Facing Collection Development at Public Higher Education Institutions in Florida*, to CSUL, which accepted the group’s recommendation to form six Janus Challenges task forces that would “prepare guidelines and implementation strategies for each targeted area.”⁷ For each of the six challenges, the report defined a goal, provided a list of the ways the effort would have a positive impact, made recommendations on how the effort should be carried forward, and provided benchmarks against which progress could be measured.

The next step in setting up the Janus Challenges infrastructure was the establishment and population of each of the six task forces. The individuals who had served as the co-chairs of the Janus Challenges Working Group were designated Janus coordinators, and they led the development of the charges. To emphasize the interrelatedness of all six challenges within an overarching collection development philosophy, each charge began with a section called the “Commons Area.” The Commons Area, which is identical in all six charges, lays out the expectations for each task force, including the requirement that members have a fundamental understanding of the six challenges and are familiar with all documentation produced by the Janus Challenges Working Group regarding the project. It also notes that task force members are

expected to survey the current SUS and national environments in their area. The Commons Area also encourages collaboration and notes that members are free to discuss issues with those outside the task force and to consult with anyone who can contribute.

The charge specific to each task force follows the Commons Areas and includes specific expected outcomes (such as an implementation plan or development of guidelines), followed by a series of deadlines that include a requirement that the task force hold its first meeting within a month and report back to the CPC Janus coordinator, that a status report be submitted prior to an August CPC conference call, and that a final report be submitted prior to the November CPC meeting. The charge concludes with a list of supporting materials with which all task force members are expected to be familiar.

When the CPC Janus coordinators set up the charges with the Common Area, establishing an environment for successful collaboration was very much in their minds. As Tamm and Luyet write in their book *Radical Collaboration*, “successful collaborative relationships require conscious and deliberate action.”⁸ This intentional attitude toward collaboration puts people into what Tamm and Luyet refer to as the “Green Zone,” which taps in to the “excitement, aliveness, and power of collaborative relationships.”⁹ When individuals are operating in this zone, “collaboration is a catalyst for innovations and for higher levels of problem solving.”¹⁰ One of the strategies that Tamm and Luyet recommend is that the intention to collaborate be stated openly and directly. By including the expectation that task force members will look beyond their own boundaries to see what is being done not just at the state but the national level, and stating explicitly that reaching out to non-task force members is encouraged and welcome, a tone of openness and shared contribution was set from the beginning of the task forces’ work.

Another best practice modeled in the format of the charges was the inclusion of reporting deadlines and a mechanism for the task forces to report back. This is another strategy that Tamm and Luyet recommend, that regular reviews be conducted “to insure that the parties are meeting their obligations in the relationship. This keeps little problems from growing into big, relationship-busting problems.”¹¹

In addition to the built-in accountability factors that the reporting deadlines provided, the charges to the task forces all began with a clear

statement of purpose. For example, the first bullet point in the charge for Challenge Six: Alternative Channels for Scholarly Communication Task Force states, in part, “The Alternative Channels Task Force advises the Collection Planning Committee on the issues related to the development and sustainability of shared institutional repositories or restricted individual institutional repositories.” Subsequent bullets instruct the task force to review Janus documents related to its charge and to develop an implementation document by the CPC final report deadline.

Taken together, the shared sense of purpose provided by the Commons Area and the graduated reporting deadlines provided much of the infrastructure for successful collaboration. Fisher and Sharp discuss this aspect of collaboration in their book *Getting It Done: How to Lead When You Are Not in Charge*. Providing people with a clear sense of purpose and a series of goals set over three points—an aspiring distant vision, a mid-distant worthwhile goal, and some immediate objectives to begin working on at once—facilitates the ability to work together to accomplish objectives. An inspiring distant vision (i.e., successfully implementing the integrated Janus Challenges systematically across the SUS) is necessary in creating an emotional commitment from the participants. Fisher and Sharp note, “You will want colleagues not merely to conform to expectations—but to contribute voluntarily to a goal they understand. . . . The effort that any of us will devote to a task will depend on whether that task furthers some higher goal.”¹²

The mid-term goals for the task forces were to have two reports completed for the CPC—a status report prior to the August 2008 CPC meeting and final task force report prior to the November 2008 CPC meeting. These reporting deadlines were essential in keeping the task forces moving forward with a sense of accountability to the larger group and gave the Janus coordinators a chance to provide formal feedback and direction along the way.

The immediate objective before each task force was to have its membership set and have met at least once via conference call within a month after being established. This gave participants immediate engagement in the project, and, as Fisher and Sharp note, once people have started upon an action, they are likely to become increasingly

committed and to consider the project important. “By starting to do something,” they write, “—particularly something meaningful toward a distant and lofty goal—you increase the likelihood that you will shed doubts, put aside ambivalence, and keep working.”¹³

JANUS CHALLENGES: A COLLABORATIVE EFFORT MATURES

By the November 2008 meeting of the CPC, all of the task forces had completed and submitted their reports, and their work was considered concluded. The CPC agreed that the next step in moving the Janus initiative forward was to integrate them into the established action plan format for CSUL committees. It was also determined that the ongoing governing of the Janus Challenges efforts would be led by a small Janus Challenges Steering Committee, which was comprised of the past, present, and incoming CPC chairs as well as the FCLA liaison, all individuals who believed deeply in the Janus Challenges concept and were heavily invested in seeing a successful outcome.

Through all phases of the Janus Challenges effort, the question of leadership was thoughtfully addressed, with great consideration given to what governance structure would work best for each phase of the project. Initially the Janus Challenges Working Group was established to evaluate the feasibility of adopting the Janus Challenges across the SUS. This group produced the initial recommendations that led to the formulation of the six Janus task forces and then disbanded so that its members could participate fully in the work of the task forces. Two Janus Challenges co-coordinators were established (the current and past chairs of the CPC) to help monitor and shepherd the work of the task forces. Now it would be the work of the Steering Committee to synthesize the task force reports and formulate their recommendations into a working plan.

The implementation of different governing structures for different phases of the Janus Challenges efforts greatly facilitated momentum and enthusiasm. In their book *Collaborative Leadership*, Archer and Cameron describe successful collaborative ventures as a three-legged stool, with the legs being governance, operations, and behaviors. They see governance as “the skeleton of a collaborative

relationship—the supporting frame that holds everything together.”¹⁴ They stress that it is important to get governance right and that as “the relationship progresses and matures, you may need to alter and simplify some of the structures.”¹⁵ The Janus Challenges Steering Committee arose from the need to simplify the Janus Challenges governing structure.

The major task of the Steering Committee was to synthesize the actionable items from the task forces into an action plan for the CPC in order to move the work from theory into practice. After reviewing the task force reports, the Steering Committee determined to put all activities into one of two categories: activities related to core collections and activities related to unique collections. Activities in these two categories were then laid out in a two-year plan. For the purposes of this chapter, we will explore whether collaborative efforts were successful in the area of shared core collection development and discuss both the positive and negative environmental factors that contributed to or impeded that success.

COLLABORATIVE COLLECTION DEVELOPMENT: CHALLENGES AND SUCCESSES

The action plan produced by the Janus Steering Committee incorporated Janus Challenges outcomes related to more centralized and methodical digitization efforts, development of a statewide scholarly communications portal, and further consolidation of e-journal package management and negotiation. At the heart of the Steering Committee’s plan was a collaborative collection development effort aimed at systematically building a shared statewide collection.

As the February 20, 2009, *Janus Steering Committee Report on Task Force Outcomes and Proposed Activities* states, “within the framework of the Janus initiative we find new opportunities for shared ventures that will provide economies of scale, capitalize on our existing infrastructure, and reduce duplicated effort and expenses. This new strategic direction centralizes core collection activities regardless of format, while programmatically building unique institutional collections that combine to create an extensive and more expansive

statewide collection.”¹⁶ The plan that the Steering Committee developed was to do exactly what Atkinson proposed when he suggested that research libraries “define the core collectively and then devote the precious time of our selectors to selecting (cooperatively) advanced materials.”¹⁷

The Janus Steering Committee created the graphic shown in figure 22.1 to illustrate this concept of a centrally held core and a cooperatively held set of unique, specialized, and advanced collections. The inner core is comprised of those materials likely to be common to most collections. Their commonalities include that they are typically selected as the result of the parameters of an approval plan, are meant for an undergraduate audience, and are increasingly likely to be in an e-book format. Moving away from the inner core toward the outer core of more advanced specialized materials, those commonalities change. Rather than being selected by an approval plan, a purposeful decision to purchase was made by a knowledgeable subject specialist; the target audience for the material is a researcher or graduate student, the format is more likely to be print, and the work may be held by only one or a few of the institutions in the system rather than by most or all.

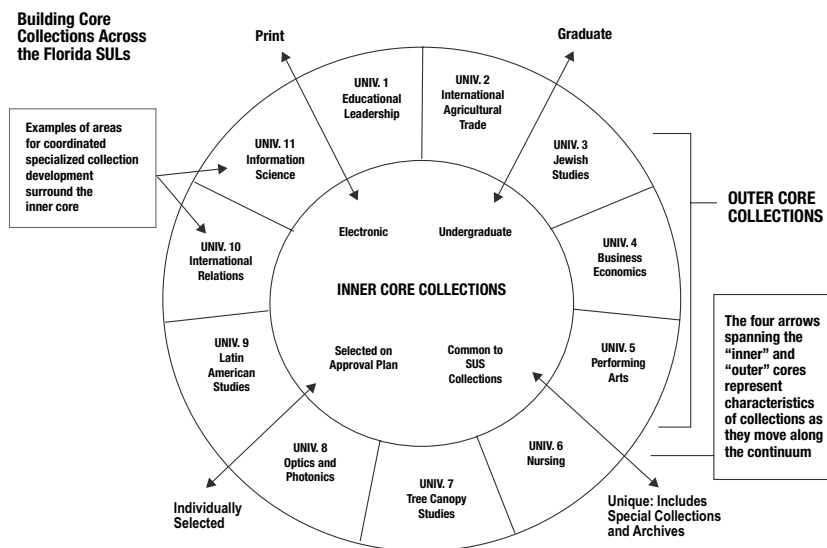


Figure 22.1 Building core collections across the Florida SULs.

FOCUSING ON THE INNER CORE

To begin putting collaborative collection development into action in the inner core arena, the CPC decided to develop an RFP (request for proposal) process. The goal was to select e-book vendors who would supply inner core titles on a statewide basis and to create a core shared electronic reference collection, as many reference materials were still being collected in print or in print and electronic combinations.

The process required to develop and acquire a shared e-book reference collection seemed rather straightforward. No new funds would be required as libraries could redirect funds already being spent to acquire these reference materials. FCLA already provided a robust set of reports that should, theoretically, provide the data needed to analyze current collection holdings and format. But it was in the data-gathering process that difficulties arose. The libraries in the system used different object codes in their acquisitions systems for like materials, and even internally, these object codes and other identifying factors were not always used consistently. The resulting data did not provide for the systematic evaluation of holdings across reference collections, and the blurring of definitions of types of content in the electronic environment (e.g., a reference work versus a database) made it even more difficult.

In many environments, and indeed most likely prior to the launch of the Janus efforts in Florida, this difficulty may have been enough to shut this collaborative effort down. However, the environment that had been created through the work of the initial Janus Challenges Working Group, the Janus task force groups with their inclusive levels of participation and the support of the collection development officers across the state through the CPC, proved to be strong enough to weather this setback. The CPC needed a solution and turned to its acquisitions colleagues for help. A joint task force of CPC members, acquisitions librarians, and FCLA staff was formed to normalize object codes and definitions for content in electronic formats so that good data could be gathered for future successful projects in this area.

In this situation, it would have been easy for people to feel defensive, not to want others to be in a position to scrutinize the way they had been doing things at their library. But the end goal—the aspiring distant vision—was strong enough to override these fears.

By this time, the CPC and its colleagues around the state had been actively working in the collaborative environment of the Janus Challenges undertaking for nearly two years, and the behavior was reflective of that experience. Returning to Archer and Cameron's concept of three legs to the successful collaborative venture's stool, we see that one of these legs is behavior, particularly important in joint problem-solving. They note that joint problem-solving "takes creativity and courage. It means opening up. It means washing your dirty laundry in public. It means asking for help when you need it, and offering it where you can. For most organizations, this doesn't come naturally—it's easier by far to resort to carping and insularity. However, finding a joint solution speeds things up, and usually saves money. What's more, joint solutions are often more creative, more ambitious and longer-lasting than those made—or ignored—in the context of one's own boundaries."¹⁸

In parallel to the work underway to create a statewide core reference collection, discussions began in earnest about the development of an RFP for vendors to supply inner core titles in the form of e-books on a statewide basis. The original intention had been to establish an approval plan, but a new model of collection development was emerging in the form of demand-driven acquisition (DDA) that seemed like it might provide an alternative with an easier entry point. The creation of a statewide approval plan would require commitment to a long-term plan and repurpose money from existing individual institutional plans, and the CPC perceived that this was an unacceptable risk to some members of library leadership, who were uncomfortable with relinquishing control over aspects of selection and budget. In addition, FCLA, due to a programmatic change in services, had some funding available that could be provided as seed money for the project. The CPC pitched the idea of doing a pilot project for a statewide DDA project to CSUL, supported by FCLA funds and supplemented jointly by funding from all 11 institutions. This approach proved to be a much more palatable one to CSUL, and all but one of the institutions agreed to participate. However, in order to support long-term efforts and in the desire to maintain a high level of collaboration, the 10 institutions committing funding to the pilot agreed to support access to shared DDA records and purchases for all 11 institutions despite 1 institution's inability to contribute at the outset.

THE CHALLENGE OF THE OUTER CORE

As depicted by figure 22.1, the diagram of the inner and outer collection cores, the concept for collaborative collection development for more specialized materials would have each library focusing on building strong collections in subject areas that aligned with its strongest programs and relying on other universities to do the same. An effort would be made not to duplicate materials across these areas but rather to rely upon the robust SUS reciprocal borrowing infrastructure (UBorrow) and the statewide delivery system to share materials.

The CPC and Janus Steering Committee understood that this was going to be the most difficult of the recommendations to achieve. It would require a close examination of existing collection strengths at the institutional level, and the resulting comparison could be seen as uncovering collection weaknesses. The Janus initiative program also called for an RFP to be drafted for a “single vendor print/electronic approval/firm order plan to support continued development of identified areas of specialization within each library,”¹⁹ which, from some perspectives, suggests some loss of autonomy and control over the individual institutional collection—the very thing a library director has been charged to build, protect, and champion. However, this aspect of the Janus Challenges was critically important to the CPC. As stated in the Steering Committee’s report, the “key message that CPC and the Janus Steering Committee has for CSUL from the entire Janus enterprise is this: Our individual collections will only be distinctive and unique in direct proportion to our willingness to work together and to centralize some of the functions that are currently dispersed throughout the system.”²⁰ Achieving both inner and outer core collaborative collection development was the heart of the Florida Janus initiative.

Unfortunately, implementing a programmatic, systemwide collaborative approach to building unique but shared upper level (or outer core) collections proved to be a hard sell to CSUL. According to Atkinson, the depth of the challenge to collaboratively build collections at this level lies in the inherent underlying competition among research libraries. Atkinson points out that “collections attract scholars, graduate students, government support, and donor funding—and add prestige to the institution. This rationale for collection

building—the collection as institutional capital—is a primary motivation, even though it is seldom specifically discussed. One point we must bear in mind with respect to this rationale, however, is that it entails or implies the existence of a separate collection at each institution that can, in effect, compete with all others.”²¹

In the end, the CPC and Janus Steering Committee were unsuccessful in persuading CSUL to pursue these efforts. Some of the library deans and directors were supportive of the concept, but others were decidedly not, and consensus was unachievable. It is our assessment that the underlying reason was indeed that inherent competitiveness Atkinson describes. As he warns, “cooperation does not, for the most part, put a collection or library on the map. Cooperation is, in fact, viewed by research libraries as a form of following, and following is certainly not something that is rewarded.”²² (Ironically, Atkinson notes that while a great deal has been written about cooperative collection development, little has been achieved, as “writing and speaking about cooperation are viewed as forms of leadership, while the act of cooperating is not.”²³)

Most likely, it is the inherent sense of competition that was a major cause of the Janus Challenges failing to be taken up on the national level, and perhaps it should remain an issue for discussion and thought. As Atkinson writes, “competition among research libraries is simply one more condition for libraries to manage. As long as those competitive conditions are ignored, however, they will remain unquestionably one of the main impediments to building effective relationships among research libraries.”²⁴

THE LEGACY OF THE JANUS CHALLENGES

While the aspiring distant vision that the CPC had to implement a systematic response to the Janus Challenges across the Florida SUS was never fully realized, the efforts undertaken under that mantle have left a significant legacy. The RFP process for the DDA program pulled together yet another collaborative group, which worked through many problem-solving exercises as it developed parameters for what was then a relatively new model for consortial purchasing. The DDA program with the selected vendor ran for over three years,

with 1,807 titles purchased, of which usage was robust. Between the total expenditure and usage, the cost per page view to the SUS was only \$.39, with the cost per page download being \$3.78. CSUL agrees with the CPC that this was a very good return on investment and has continued an evidence-based acquisition plan with another vendor upon the cessation of the original deal.

Another legacy of the Janus Challenges lives on in the areas of licensing principles and publisher relations. Under the auspices of this group, shared licensing guidelines were developed to ensure that all licenses for e-resources across the state adhered to best practices. These guidelines were vetted widely across the state and had the benefit of input and review by a lawyer at FCLA's then home institution, the University of Florida, who specialized in intellectual property law.

In addition to the concrete accomplishments achieved through the Janus initiative, an important legacy remains: an underlying and fundamental desire to collaborate among the librarians in the state university system, particularly in the areas of collection development and resource sharing. Although collaboration across the state is no longer a central theme for CSUL's effort, it remains one for the CPC and many librarians working in other areas.

SUSTAINING COLLABORATIVE EFFORTS OVER THE LONG TERM

Like a good marriage, successful collaborative efforts need to be nurtured over time and to respond to changes in the environment in which they exist. As we have discussed in this chapter, those who lead collaborative efforts must recognize when a governance structure needs to adapt to maturing collaborations and be willing to change that structure in response. Individuals need to be willing to be open and honest and to participate in joint, shared problem-solving. And, as we have also discussed, having a central organization in place that can provide shared leadership and infrastructure can be, as was the case for many years in Florida, very beneficial to sustainability.

Perhaps one of the greatest challenges to collaborative efforts in the SUS libraries was the dismantling of FCLA. In 2012, FCLA, along with its sister organization, the College Center for Library Automation (CCLA), which supported the 28 libraries in Florida's (Community)

College System, was consolidated with the Florida Center for Advising and Academic Support (FCAAS) and the Florida Distance Learning Consortium (FDLC) through a legislative mandate to form the Florida Virtual Campus (FLVC). New committees that included librarians from FLVC's 40 constituent institutions were formed and, under the direction of transitional FLVC leadership, FCLA staff were not allowed to attend and provide support for legacy FCLA committees that served only the SUS constituents.

Another factor that can affect the sustainability of collaborative efforts is changes in top leadership. Between the time of the initial creation in 2002 of what came to be the CPC, where CSUL charged the group to "look at the SUL collections as a whole from the perspective of a 'single library,'"²⁵ and the uptake of the Janus initiative, a number of the library deans retired, and not all newcomers placed the same value on collaboration. As Archer and Cameron note, "habits that leaders have developed over years of success in situations where they could exercise positional control become major barriers to working effectively in a partnership or strategic alliance."²⁶ When added together, issues of control and those of competition, as Atkinson noted, can shut down collaborative efforts pretty quickly.

Despite these impediments, the spirit of collaboration among SUS librarians continues and now, increasingly, includes their colleagues in the Florida College System. The FLVC and its legacy organizations underwent another legislatively mandated transformation in 2014, which created the Florida Academic Library Services Cooperative (FALSC), refocusing part of FLVC directly back on the libraries of public higher education institutions in Florida. As stability returns to this supporting organization and the highly collaborative process of implementing a new ILS across the SUS progresses, the spirit of collaboration will continue to grow.

In the end, however, real transformative changes in libraries such as Atkinson envisioned will only be achieved when leaders at the highest level collectively have the capabilities of collaborative leadership—the ability to build relationships, to handle conflicts, and, as Archer and Cameron note most importantly, the ability to share control with others.²⁷ They write: "The successful operation of any collaboration is ultimately dependent on productive relationships between the leaders involved. Leaders are role models for the behavior

of the rest of their organization and the way they act is particularly important at the start of any collaboration—early experience forges the behaviors and habits that others will adopt.”²⁸

NOTES

1. “Revised Minutes, Thursday December 5, 2002,” State University Library Council, <http://csul.net/sites/csul.fcla.edu/uploads/csul-12-05-02.pdf>.
2. Roy Ziegler, “Janus in the Sunshine,” *Florida Libraries* 51, no. 2 (Fall 2008): 10, <http://journals.fcla.edu/flalib/article/view/84563/81599>.
3. “Janus Conference on Research Library Collections” (presentations, Janus Conference on Research Library Collections, Cornell University, Ithaca, New York, Oct. 9–11, 2005), <https://ecommons.cornell.edu/handle/1813/3767>.
4. In 2012, a twelfth institution, Florida Polytechnic University, was added to the State University System.
5. Ziegler, 11.
6. Ibid.
7. Ibid., 12.
8. James W. Tamm and Ronald J. Luyet, *Radical Collaboration: Five Essential Skills to Overcome Defensiveness and Build Successful Relationships* (New York: HarperCollins, 2005), 169.
9. Ibid., 8.
10. Ibid.
11. Ibid., 176.
12. Roger Fisher and Alan Sharp, *Getting It Done: How to Lead When You Are Not in Charge* (New York: HarperCollins, 1998), 47.
13. Ibid., 49.
14. David Archer and Alex Cameron, *Collaborative Leadership: Building Relationships, Handling Conflict, and Sharing Control*, (New York: Routledge, 2013), 45.
15. Ibid.
16. Michael Arthur, Rebecca Donlan, Claire Dygert, and Roy Ziegler, “CSUL Collections Planning Committee: Janus Steering Committee Report on Task Force Outcomes and Proposed Activities, February 20, 2009,” 1.

17. Ross Atkinson, "Six Key Challenges for the Future of Collection Development: Introduction for the Janus Breakout Sessions," *Library Resources & Technical Services* 50, no. 4 (2006): 245.
18. Archer and Cameron, Collaborative Leadership, 58.
19. Arthur, Donlan, Dygert, and Ziegler, "Janus Steering Committee Report," 6–7.
20. *Ibid.*, 1.
21. Atkinson, Six Challenges, 245.
22. *Ibid.*, 251.
23. *Ibid.*
24. *Ibid.*, 248–49.
25. "Revised Minutes," <http://csul.net/sites/csul.fcla.edu/uploads/csul-12-05-02.pdf>.
26. Archer and Cameron, Collaborative Leadership, 143.
27. *Ibid.*, 10.
28. *Ibid.*, 146.

E-Resource Management Strategies for an Informal Consortium

Rhonda Glazier and Sommer Browning

INTRODUCTION

The University of Colorado (CU) system libraries consortium is a dynamic, proactive team that not only acquires electronic resources collaboratively but also shares the work of managing the electronic resources. The CU system libraries are comprised of the University of Colorado Boulder Libraries, the University of Colorado Denver Auraria Library, the University of Colorado Strauss Health Sciences Library, and the University of Colorado Colorado Springs Kraemer Family Library. In 1997, acquisitions and collection development staff at the CU system libraries formed CU Libraries Electronic Resources Team (CLERT), a group that purchased collections together to leverage funds. Creating a local consortium with libraries that are part of the same university system allowed the libraries to avoid pricey consortial membership fees and share some aspects of collection development, and it gave the group the freedom to customize membership rules that might not fit with larger consortia. In 2013, access and discovery staff at the libraries formed CU Libraries Access and Discovery (CLAD). CLAD expanded the acquisitions collaboration to include the work of managing electronic resources such as cataloging, verifying access, contacting the vendor to investigate access issues, and, most recently, tracking resources in a jointly owned knowledge base (the consortial edition of Serials Solutions). This chapter will outline the formation of both CLERT and CLAD, explain the benefits of

entering into similar local and informal consortia, discuss the impacts and outcomes of these groups, and outline ways to sustain and manage these kinds of collaborations. The chapter will provide examples of challenges CLERT and CLAD have had to overcome and opportunities they have created across the CU system libraries in terms of collection development, access, and organizational structure.

ESTABLISHMENT OF CLERT

The CU system is comprised of five libraries on four campuses: Norlin Library at University of Colorado Boulder (CU Boulder); William A. Wise Law Library on the CU Boulder campus; Auraria Library at University of Colorado Denver (CU Denver), which also serves two other institutions, Community College of Denver and Metropolitan State University of Denver; Strauss Health Sciences Library on the Anschutz Medical Campus; and Kraemer Family Library at University of Colorado Colorado Springs (UCCS). These five libraries have separate budgets, administrations, and missions. The size of the campuses ranges from Boulder offering approximately 4,000 unique courses in more than 100 fields of study across 235 degree programs leading to baccalaureate, master's, doctoral, or professional degrees to UCCS with 45 bachelor's, 22 master's, and 5 doctoral programs. In 2016, CU Boulder had an enrollment of more than 32,270 students; UCCS, 11,995; CU Anschutz Medical Campus, 4,167; CU Law, 547; and the Auraria Library served nearly 50,000 students, faculty, and staff. The libraries' collections are also vastly different, with CU Boulder owning over 7.5 million physical volumes to the Strauss Health Sciences Library's primarily electronic collection of over 30,000 journals and hundreds of e-books.

With these major differences between the campuses and libraries, administrators and faculty members were often confused about what was available on a given campus. It was often assumed that all libraries had access to the same materials since they were all part of the CU system. In addition, there were faculty members who taught on more than one campus, making it confusing and problematic for faculty to remember which resources were available to their students.

Another issue was that even faculty who only taught on one campus knew about resources available on another campus and wanted to know why their campus did not make the same materials available. These concerns led the CU system faculty assembly chair to request that the four campuses work together to provide, as much as possible, the same resources on all campuses. In 1997, then CU system president John C. Buechner established an initiative to purchase shared electronic resources for all campuses.¹ The group established in 1997 was called the CU Libraries and Electronic Resources Team (CLERT) and continues today. Since the beginning CLERT has had representation from all five libraries on the four campuses. In 1997 the group received funding from President Buechner, but by 2006 there was no formal system funding for this initiative.²

Even though formal funding ended in 2006, the value of cooperative purchasing for the CU system was established. When funding changed, CLERT developed a charge that consisted of three themes: (1) to leverage library budgets with systemwide pricing and access; (2) to participate in larger consortial opportunities; and (3) to negotiate system licenses to streamline procurement and legal review. Funding moved from a systemwide allocation to each campus providing funding for any of the electronic resources that were of interest to that campus. In 2011, the University of Colorado libraries deans and directors reaffirmed the CLERT charge to purchase shared collections whenever possible. By 2014 there had been significant turnover in the membership of CLERT and the group decided it needed to develop a set of principles for building a shared electronic resource collection. The agreed-upon principles were as follows:

- Negotiate the best possible systemwide pricing for common needs.
- Distribute savings among all participating libraries.
- Minimize effort and create efficiencies whenever possible.
- Share access to resources when possible.
- Approach other consortia when a significant savings is apparent.
- Recognize the efforts and contributions of each library; recognize that each library is working for the “greater good of CU.”

One area of confusion among members was how to determine whether the purchase of a resource should be considered a CLERT deal and whether all libraries had to be involved in the purchase of a resource for it to be a CLERT deal. To clarify this issue, it was determined that a CLERT deal would be defined as any deal in which two or more CU libraries share access, cost, or licensing to a resource that is not freely available or when the payment by one library benefits the cost or access of another CU library. It was also important to determine how individual libraries leave a CLERT deal. The principles established for this are as follows:

- There is no requirement or obligation to participate in a CU system purchase.
- When deciding to cancel an electronic resource, do no harm to the other libraries.
- When canceling an electronic resource, use a process that allows the other campuses to plan and absorb the cost that a library leaving a resource may cause.

In 2014 CLERT was asked to identify the benefit of this joint purchasing model to the libraries' deans and directors. For this presentation, CLERT identified several benefits:

- All libraries realized some level of cost avoidance and return on investment (ROI).
- Libraries were able to better maintain similar collections across campuses.
- With all libraries participating, CLERT was able to leverage the buying power of the CU system to negotiate more favorable deals.
- Flexibility of cost sharing—CLERT was able to divide up costs among the libraries according to ability to pay, making it possible to help another library that may not have the money for the resource on its own.
- One license review, and one payment. The lead library for each electronic resource would ask the participating libraries for an account number for payment. The invoice was then paid by the lead library using each library's account.

Another main change in CLERT has been the need to formalize roles within the group. At this time, there are only a handful of members who were part of the original group founded in 1997. As members retired, moved on to other libraries, or left the group for other reasons, the lack of an institutional memory made the group question the cost distribution between the libraries and whether decisions that were being made informally needed to be formalized and recorded. For example, early on when a new resource was needed, each library would indicate the amount of money it could contribute to the new resource. Negotiation among the members would go on until the amount needed to fund the resource had been met. Why a particular library was able to contribute a specific amount was never documented. This made it difficult, several years after the deal was made, to understand the allocation each library was spending on that resource. At the beginning, each member of CLERT came to the table with the understanding that the purpose of the group was to support each other in the purchase of electronic resources. Many times a library would contribute “at least something” to a resource, whether or not it was needed on that campus, to help make the purchase possible. This “for the greater good” attitude has continued, although now the mechanics on how costs are determined are documented for later renewals.

Because there was no formal structure, decisions were made based on what would work for CLERT at that time. There was little discussion on how sustainable a process or procedure might be in the future. Without established formal duties, most of the responsibilities fell to whoever was willing to do them. The responsibility would continue until that member indicated they could no longer handle the duty. Meetings were held at the Auraria Library in Denver because of its central location and so Auraria became the *de facto* host for the group. A member of CLERT from Auraria would reserve meeting space and meetings were held on an as needed basis. At each meeting the group would discuss a date for the next meeting, and over the years the meetings were held approximately every six weeks, with no meeting in the summer. The group had no formal chair, although the representative from UCCS along with a member from Auraria and one from CU Boulder all shared responsibility for facilitating the meetings. At some point, the role of secretary was formalized because of a need to

have formal notes and a record of decisions. In 2015 the group decided to formalize the role and term of chair and secretary and to develop specific duties for each. Both the chair and secretary serve for one year, with the secretary moving up to chair the following year. It was determined that spending a year as secretary allowed that person to learn about the different electronic resources and other issues being handled by the group. When the secretary becomes chair another secretary is appointed. At this time, these positions are voluntary with no formal rotation between the members. Basecamp, a project management software, is utilized to maintain information on each CLERT deal and notes from the CLERT meetings.

The only formalized roles for CLERT are chair and secretary, and each library may send as many representatives as it feels is necessary to the meetings. Most items are not voted on. Instead, the group holds informal conversations about decisions such as the need to add a particular resource. While there are circumstances when members need to go back to their libraries before committing a specific amount for a resource, they have enough experience and knowledge to be able to determine whether the resource is a potential CLERT purchase or if one library should purchase it on its own.

Roles continue to evolve as new members are added to the group, but the core mission of the group has stayed consistent and is central in all discussions. Twenty years after CLERT was established, a vision and mission statement for the group was drafted:

CLERT Vision: Providing leadership in the acquisition of CU's shared electronic resources.

CLERT Mission: To effectively facilitate the entire life cycle of electronic resources acquired to meet the curricular or organizational needs of more than one CU library or campus through fiscally responsible resource assessment and negotiation strategies.

PROS AND CONS OF A CONSORTIAL PURCHASING MODEL

From the beginning CLERT focused on cost sharing for electronic resources, and as funding changed over the years, the nature and purpose of the purchases changed. One of the primary focuses of the

group is to be a “good citizen” and to share costs and work whenever possible. This type of purchasing has led to several positive outcomes for members of CLERT, including the following:

- Better pricing for individual libraries because of more buying power. This helps smaller libraries have access to materials they could not afford.
- Sharing costs and absorbing costs for another location if needed. One location may have limited funds and for one year another library may pick up the cost of a resource for the other location.
- More awareness of the needs of the other campuses. There have been cases in which one library asked for access for the whole system even though that library was the only one paying.
- All libraries hear the same information from a vendor. Vendor presentations can be given to the entire group instead of having a vendor meet with each library separately, ultimately saving time.
- Only one library negotiates the license and price for the entire system, thus creating efficiencies.

As with everything, there is also a downside to purchasing resources with a group. Mostly this revolves around giving up complete control of the decision-making and negotiation processes. Each library is depending on the other libraries to keep everyone’s interest in mind when negotiating on behalf of CLERT. It is also the responsibility of the lead library in a negotiation to accurately provide the information about the other institutions to the vendor and to be the go-between for the CU system libraries and the vendor. This role of good citizen will at times require an individual library to look beyond what is simply good for its location to the greater good. It may also mean participating in the purchase of resources that are not central to one’s mission to support the system as a whole. Other concerns include the following:

- It is harder to cancel resources that are negotiated with other campuses as a group since one of the mottos of CLERT is to “do no harm” to another library. The decision to cancel a

resource can be more complicated because of its impact on the other libraries.

- When a resource is marginally needed by all but one of the libraries, it can take more time and effort to decide whether to purchase as a group or individually.
- Decisions can take longer while each library is consulted and the decision to add a resource may take longer to negotiate with the vendor when more libraries are gaining access.
- Access issues are normally handled by the lead library. This means that sometimes resolving access issues will take longer as a library notifies the lead library about a problem and the lead library must determine whether more than one library is affected.
- Larger libraries may be asked to handle more of the work because of the potential for wanting access to more resources. This may make the workload disproportionate between the libraries.

ESTABLISHMENT OF CLAD

Like CLERT, CLAD also has representation from all five libraries on the four campuses. But instead of the acquisitions and collection development staff coming together, CLAD is composed of the cataloging and electronic access staff at each of the libraries. CLAD members are of various ranks and have different job titles and position descriptions, but they all have in common the management of electronic resources. Some of those who attend CLAD have the following titles: electronic resources access librarian, electronic resources access manager, head of Discovery and Metadata, director of Cataloging and Metadata Services, electronic resources cataloging librarian, and serials cataloging manager. Because some of the libraries who are members of CLAD have small staffs, the same people might be members of both CLERT and CLAD.

The formation of CLAD was a gradual process and was a kind of offshoot of CLERT. Around 2013, CLERT had negotiated a CU system demand-driven acquisitions (DDA) e-book program. CU Boulder acted as the lead library and managed its workflow—namely, providing the

rest of the CU system libraries with MARC records for the e-books. The CU Boulder cataloger would post discovery, delete, and purchase or trigger e-book MARC records on Basecamp (the same project management software CLERT was using) and each library would retrieve, customize, and load them into their respective catalogs. The Boulder staff in charge of distributing MARC records would also act as the point person for access issues regarding this DDA program. The streamlined system worked for all the libraries involved, and the notion that something like this could be applied to other CLERT deals took shape.

Cataloging or processing electronic resources collaboratively or with a consortium is not a new idea. Often consortia that share integrated library systems (ILSs) or discovery layers develop ways to create technical services efficiencies. The efficiencies often take the form of cataloging and distributing resource records centrally (similar to the CLERT model just mentioned) or divvying up the batch-loading of electronic resources records between member libraries, as the Triangle Research Libraries Network (TRLN) in North Carolina does.³ The CU system libraries do not share an ILS or discovery layer. Each library (except CU Law, which shares CU Boulder's catalog) has and maintains its own catalog and discovery layer. However, when resources are negotiated and purchased together, in this case through CLERT, there are many opportunities to share the discovery and access work as well.

In 2013 CLAD was formed. In the beginning, CLAD focused its energy on developing shared workflows that would help the access and discovery units at each library save time and work more efficiently. Because the CU libraries already shared MARC records for the existing DDA plan, many initial CLAD conversations started there: Were there customizations all the libraries were performing to the records that Boulder could do in batch? Was Basecamp fulfilling the groups' needs? Which field did libraries use to overlay records, and did one library have a better way of loading them? Was the responsibility of modifying and posting the records to Basecamp relying too heavily on Boulder? Having these kinds of discussions with each other was fruitful and it gave way to efficiencies in workflow and collaboration. But as CLAD continued to come together, conversations shifted to sharing the work of other CLERT purchases and larger issues affecting access and discovery in general.

Like CLERT, CLAD decided which library would be the lead for access and discovery issues of particular resources and discussed library needs through the lens of good citizenship. CLAD focused mainly on access in the beginning. Many discussions centered on how certain resources were working with library proxy servers or how to most efficiently contact vendors when access issues arose. As CLAD continued to meet, other needs and concerns about access and discovery in general began to take shape, such as questions on the implementation of tools CLAD libraries used to create discovery and discussion about particularly problematic vendors. Concerns like these began to shape the mission of CLAD, and changed its focus.

CLAD began to take on a kind of professional development role to address the questions that arose around discovery tools, such as MarcEdit and WorldShare Collection Manager. For example, CLAD held an informal knowledge-sharing session about MarcEdit and the processes each library used to customize MARC records. More recently, after CLERT had negotiated shared access to a particular vendor's e-books, CLAD was asked to develop a workflow so each library could share the e-books they had purchased with all of the other CU libraries. UCCS was beginning to use WorldShare Collection Manager to manage some of its holdings and so held an informal workshop about what Collection Manager could do, how UCCS uses it, and how it could help CLAD share these new e-books with each other.

CLAD's scope has grown in other ways as well. It has at times taken on an advisory role for CLERT and the collection development units at the CU system libraries. Because of its access and discovery expertise, CLAD was asked to write a recommendation about renewing a certain subscription that was notoriously difficult to catalog, had very poor linking and indexing in the libraries' respective discovery layers, and whose links often resulted in access errors for the end user. CLAD was able to voice its concerns in a written recommendation against the renewal. Though the product was renewed, this recommendation served as the basis for a conference call with the product's developers, and the libraries were able to share the details of the poor access and discoverability of the product.

CLAD's main duties are as follows:

- Share MARC records for CLERT purchases.
- Share workflows for CLERT purchases.
- Streamline communication with the vendor for issues relating to access and discovery.
- Create training opportunities for commonly used tools (e.g., WorldShare Collection Manager, MarcEdit).
- Complete assignments that come from CLERT (e.g., EBSCO shared e-books workflow).
- Advise CLERT when needed.

HOW CLAD WORKS

CLAD is an informal group. It does not follow Robert's Rules of Order and, until recently, did not have officially designated positions. Currently, CLAD has two co-chairs, who were self-selected. The co-chairs exist mainly for procedural reasons: to schedule the meetings (online and in-person) and to call for agenda items. Most of the other functions and work CLAD performs is on a volunteer basis and worked out collegially between members. CLAD usually meets no more than five times a year. This includes quarterly meetings and one ad hoc meeting a year. CLAD has always met at Auraria Library, as it is the most central meeting location for members. There are always members who dial in remotely using meeting software. Notes are usually taken by one of the co-chairs.

BENEFITS OF A CONSORTIAL CATALOGING AND ACCESS MODEL

Like CLERT, CLAD also operates under the informal directive of being a good citizen. To this end, the group strives to share methods, workflows, and work as equally as it can, and this leads to efficiencies, deeper collaboration and understanding of one another's institutions, and new and creative ways to strengthen the consortium. Sharing the work of cataloging and providing access was the driving force behind the creation of CLAD—namely, our shared CU system DDA program.

Sharing the work of creating institution-neutral MARC records (removing local notes and proxy strings), packaging them into one file, and being the point of contact for the vendor when access issues arise have positive effects on staff time and free up staff to work on other tasks. When you apply this way of working together to the many packages and resources the CU system libraries purchase together, it is easy to see how saving staff time saves the libraries money and how this is a direct outcome of this group. But there are other benefits that are more nuanced and less quantifiable that have emerged as CLAD has evolved.

One such benefit that is difficult to quantify is the deeper understanding of the life cycle of electronic resources that CLAD members gain. The membership of CLAD is diverse. It spans faculty and staff, managers and non-supervisors, experienced library staff and emerging librarians—and with these various positions and ranks brings different areas and levels of expertise. The breadth of skills and electronic resources experience works together to bring innovative solutions and a deeper understanding of the complexities of electronic resource management. Many of the areas of electronic resource management discussed in CLAD are integral in the NASIG Core Competencies for Electronic Resources Librarians.⁴ Conversations in CLAD have spanned the particulars of MARC fields to the user experience of vendor platforms to patron privacy concerns. This is in part because the management of electronic resources is complex and touches on seemingly disparate areas of expertise, but it also is a function of the membership of this group and the in-depth discussions that it regularly holds. This kind of knowledge sharing creates well-rounded electronic resource management staff and more expertise in each of the CU system libraries' electronic resources units.

Along the same lines, one of the strengths of CLAD is that it provides a forum for group decision-making, thus strengthening the CU system consortium as a whole. In 2015, CLERT decided to begin an evidence-based acquisition (EBA) project with a streaming video provider. This was the first time this provider worked with a consortium on its EBA package. There were over 30,000 streaming videos in this package, many of which duplicated videos that Auraria had already purchased. Evidence-based, patron-driven, and demand-driven acquisitions models always require more work from cataloging, acquisitions,

and electronic resources staff. There are discovery records to load, titles removed from the EBA package to keep track of, and triggered purchases to identify, let alone the usually less-than-straightforward method of paying for the triggers (e.g., deposit accounts, manual order record creation). Needless to say, purchasing this with five libraries created more complications. Duplication of records was an issue, as was the timing of the loading of the discovery records, the notification and removal of deleted titles, the poor quality of the MARC records, and the collection of usage statistics. CLAD was charged with creating the workflow for this project, and because the group was established and had a unified voice and a close connection with CLERT, it was easy to convey frustrations and challenges with the program. The endeavor was a learning experience and the libraries eventually did purchase some well-used streaming video collections. After this experience both groups understood how programs like this affect technical services work, which led them to a more holistic view of the complexity of new acquisitions models. Working closely together on complex projects, sharing what they have experienced, and learning together leads to a stronger consortium, one that operates as a whole and is proactively looking for future collaborations and efficiencies.

OVERCOMING CHALLENGES IN AN INFORMAL CONSORTIUM

One simple way that informal consortia can help resolve issues is around budgeting. Since the exact splits for any given resource are not mandated, it is possible for one library to pay more than its share when another library is having a tough budget year. For example, several years ago CU Boulder had a deficit and with limited options began identifying electronic resources that could be canceled. The other campuses were not in the same situation, and through CLERT the other libraries in the consortia agreed to take on additional costs to help Boulder with its deficit. These gestures of good will were documented and at the end of the fiscal year presented to the deans and directors of the various libraries. This information was also shared with CU system administration as an example of cooperation across campuses. For UCCS, it was an opportunity to give back. In some CLERT deals, CU Boulder carried the highest cost among the libraries,

allowing UCCS to have access to resources that it would not have been able to afford on its own.

Over the past several years all five libraries have been concerned about the accessibility of their electronic resources. While there was not a specific problem for the group to solve, it was an area of discussion for CLERT. This allowed each campus to hear what another campus was doing and to incorporate what worked well for one campus into the procedures and workflow at another campus. Discussion also led to changes in what the lead library on each individual negotiation would ask for and document. By having this information gathered by one library for the system, it allowed for efficiencies for everyone.

CLAD works best when there are clear directives, such as creating the workflow for a new CLERT purchase, and when communication is clear and consistent. This of course is not always possible when organizational changes occur in one library or another, staff turns over, the budget is restrained, and the libraries employ different technology. There are a number of ways to address these concerns, but most of them require more time devoted to CLAD. For example, meeting more frequently would help onboard and introduce new CLAD members to each other. But time is always in demand it seems, so CLAD must develop ways to communicate more efficiently and keep on task without having to spend a lot of time doing it. Two ways to address this are formalizing the group as CLERT did in 2015 and creating best practices for communicating.

One of the benefits of formalizing a committee, mainly creating a charge and electing officials, is streamlining the organizational processes of that committee, narrowing its focus, and creating a structure of accountability. CLAD has the benefit of watching the evolution of CLERT, and since CLERT formalized its role and officers, it has been able to take on larger and more complex projects in an organized way. A formal charge would help CLAD determine which projects were in its purview. Electing officers, such as a chair and secretary, would provide clear leadership, help define roles for new members, and provide some built-in accountability for completion of projects or just moving agenda items from one meeting to the next for follow-up. As CLERT engages in more complex acquisitions deals, CLAD will likely move toward a more formalized structure.

Creating best practices for communicating is another way to address some of the effects that internal library organizational changes, like staff turnover, can have. Currently, CLERT and CLAD use Basecamp for communicating with each other, and while there is periodic cleanup for projects, there hasn't been a systematic assessment of this software and how it fits communication needs. A review like this would take time but might in the long run create efficiency and relieve some of the teams' current frustrations. In addition, some best practices for communicating could be drawn up, such as a guideline about replying to Basecamp posts within 24 hours or standardizing the way the teams introduce new CLERT or CLAD members.

FUTURE OF CLERT AND CLAD

One of the main changes in CLERT has been the complexity of the group. What started as a small group with a narrow focus has grown into a larger group with competing interests. With no central funding, it is now dependent on each campus agreeing to support the other campuses. In addition, with five separate budgets, it is necessary for each member of CLERT to not only advocate to CLERT for an individual campus but to take back to its campus the value of CLERT. One of the focuses of CLERT is to find both qualitative and quantitative measures that highlight the value of participating in CLERT. Beginning in 2015, CLERT began meeting annually with the deans and directors of the participating libraries to discuss the accomplishments of the previous year. During this meeting the deans and directors are presented with a document highlighting the ROI each library received because of its participation in CLERT. To create the information for this presentation, CLERT has developed a series of worksheets that are maintained by the lead library for each purchase so that the group can capture the following information:

- Lead library.
- Name of resource.
- Vendor/publisher.
- Subscription expiration: last day of subscription.

- License information: if no license is needed, a note is placed in the form indicating why.
- Contract number: used by system procurement so that all libraries can find information on the resource in the procurement system.
- Length of deal: indicates the number of years negotiated; for example, in some cases, CLERT negotiates a set percentage increase in return for automatically renewing a resource for a certain number of years.
- Total price for system.
- Initial quoted price.
- Final negotiated price.
- Contribution from each library.
- Dollar amount per library: in some cases CLERT may indicate a percentage of total price per library.
- Libraries with access: should include all libraries that contributed funds for purchase.
- Libraries with “complimentary” access: sometimes a library will not pay for access, but during the negotiation another library will negotiate access for all campuses.

This information is used to track who has access to a particular resource, how much the system as a whole saved through negotiation, how much each individual library is responsible for paying, and other pertinent information about a resource. This information is then translated to a spreadsheet where ROI, cost avoidance, and other information is calculated and presented to the deans and directors.

CLAD has evolved in many ways as it responds to the changes in acquisitions purchasing models, the tools for managing electronic resources, and the priorities and needs of the institutions it represents. Over the years, the major factors that have directed the work of CLAD include

- publishing industry changes leading to new acquisitions models;
- cuts to learning materials budgets;
- staff turnover; and
- internal reorganizations.

While these factors will likely continue, CLAD has gained experience with managing the change they bring. CLAD will always have to respond to these conditions; however, in the next two to four years CLAD's role will likely expand to include managing shared software, understanding how to use tools such as OCLC Collection Manager for better record sharing, and advocating for better discovery from vendor-supplied records and discovery layers.

One task currently before CLAD is the management of the CU system's consortial edition of ProQuest Workflow Solutions. By 2015, the CU system libraries had all purchased some form of the Serials Solutions/ProQuest Workflow Solutions product. This is an electronic resource management system that manages the access and linking to journal and e-book packages and databases. While each library had individually negotiated and purchased this product for its own use, ProQuest also offered a consortial edition to the CU system. The consortial edition of ProQuest Workflow Solutions has the potential to decrease some of the work involved in tracking and managing subscriptions individually at each library. This software squarely fits under the responsibility of CLAD to determine best practices and workflows for managing it. However, because of fluctuations in staffing, various ongoing and large software migrations at CU system libraries, and other factors, the investigation of this software has not been a priority. The CU system and CLERT are always looking for ways to collaborate, and purchasing more software together is in the future of both CLERT and CLAD.

The future of CLAD certainly depends on what future technology the CU system libraries will be using, but it also depends on the future of the publishing industry. While CLAD must always respond to industry changes (e.g., new acquisitions models, consolidation of publishers and platforms) it also has the opportunity to take on a proactive role as an advocate for discovery and access. The future of CLAD will likely involve more outward-facing advocacy work similar to the recommendation it wrote for CLERT concerning the standard discovery, access, and indexing of a certain publisher. CLAD will always be a group that focuses on internal workflow and streamlining the acquisitions to discovery life cycle of electronic resources, but its future will also include more focus on user experience. In short, CLAD's future entails the following:

- more work with new acquisitions models (e.g., EBA, DDA);
- working more closely with CLERT;
- shared software purchases (e.g., electronic resource management tools);
- formalizing the group (e.g., elected positions, more frequent meetings); and
- discovery, access, and indexing advocacy.

CONCLUSION

CLERT and CLAD have come a long way from John C. Buechner's 1997 mandate that the CU campuses cooperate and collaborate more closely together. While the initial directive brought its own funding to purchase electronic resources, funding has dwindled over the years. However, the mission to jointly purchase these learning materials has continued, and CLERT and CLAD continue to work together not only to save money and staff time but to increase workflow efficiencies and negotiating power.

Although CLERT and CLAD are informal groups, they have both recognized the need to become more structured over the years, developing vision and mission statements, creating purchasing guidelines, establishing workflows, and formalizing duties. The evolving structure has served both CLERT and CLAD well in many ways, but it also serves as a mechanism to integrate new members of the teams, familiarizing them with the purpose and responsibilities of the consortium. One of the most valuable aspects of CLERT and CLAD is the opportunity they give library staff to network and meet their counterparts at the other campuses. When an issue or problem comes up, each member knows someone from another campus to call for guidance and information.

CLAD and CLERT are two examples of how effectively informal collaboration can work for libraries, regardless of size. The libraries involved in CLAD and CLERT pay no dues and are not required to participate in any specific deal if it is not beneficial to them. All members agree to represent their home institution and yet abide by the motto "do no harm." This has worked to great effect and has allowed the campuses to purchase and provide access to a myriad of resources as efficiently as possible. This model is easily reproducible by other

institutions. All it takes is an interest in working together for the good of all libraries and campuses involved.

NOTES

1. Denise Pan and Yem Fong, "Return on Investment for Collaborative Collection Development: A Cost-Benefit Evaluation of Consortia Purchasing," *Collaborative Librarianship* 2, no. 4 (2010): 183, <https://digitalcommons.du.edu/collaborativelibrarianship/vol2/iss4/3/>.
2. Ibid.
3. Charles Pennell, Natalie Sommerville, and Derek A. Rodriguez, "Shared Resources, Shared Records: Letting Go of Local Metadata Hosting Within a Consortium Environment," *Library Resources & Technical Services* 57, no. 4 (2013): 227, <https://journals.ala.org/index.php/lrts/article/view/5586/6886>.
4. "NASIG Core Competencies for Electronic Resources Librarians," last modified January 26, 2016, http://www.nasig.org/site_page.cfm?pk_association_webpage_menu=310&pk_association_webpage=7802.

Data-Driven Journal Backfile Acquisition in the Digital Age

Youngim Jung, Hwanmin Kim, and Honam Choi

The field of scholarly communication has changed rapidly in recent years and the coexistence of Toll Access, Open Access models, and backfile purchases has complicated decision-making processes relating to the acquisition of electronic resources. Libraries tend to focus on subscriptions to issues of journals currently in publication when building their acquisition planning portfolios, whereas academic scholars have proportionally cited more of the older literature. This trend appears to be increasing over time and has been confirmed in numerous studies and surveys.

This chapter discusses the growing impact of backfile purchasing in consortia and the necessity of data-driven approaches for the acquisition of electronic resources; it also reviews previous studies on journal assessments for the acquisition of electronic resources by libraries and explores data including COUNTER usage statistics, denied usage (considered as potential demands), usage/denial trends over time, JIFs (journal impact factors), price per article, price per citation, and the for-profit status of academic journals available online. A novel data-driven and metric-based method for assessing the value of backfile packages is suggested, supported by a project undertaken in South Korea. A novel data-driven approach was adopted to select the most beneficial and cost-effective journal backfile packages among 28 ScienceDirect packages for a consortial acquisition. The existing collaboration between the consortia and the member libraries

in collecting fundamental data (e.g., COUNTER usage reports) and in assessing the journal backfile packages proposed using the given method, which has facilitated the consortium's acquisition decision. Lastly, some issues and drawbacks relating to the data-driven method are discussed.

INTRODUCTION

A reliance on back data, metrics, and acquisition models is needed for libraries around the world to compensate for limited budgets and price inflation of journal packages. Managers of libraries and library consortia are under increasing pressure to provide the most effective content at the most affordable prices.¹

Discussions on big deal subscription models have become the subject of controversy following the global economic downturn. Alternative models including sub-package deals based on subjects, a journal-level business model, and pay-per-view models at the article level have been considered. Different pricing models such as core versus peripheral journals, token-based access, and tiered pricing have been experimented with.² In tandem with these efforts, Open Access has become a central issue for academia, libraries, and publishers across the globe.

The KESLI (Korean Electronic Site License Initiative) consortium is a nationwide South Korean consortium managed by the Korea Institute of Science and Technology Information (KISTI), a government-funded research institute. KESLI encompasses more than two million patrons spanning over 600 academic, research, medical, corporate, and public institutions. The consortium is one of the biggest in the world in terms of number of participants, with 639 member institutions as of 2015. Figure 24.1 depicts the development of the KESLI consortium since 2000. Steady growth in the number of participating members, the number of products proposed, and the number of products purchased has continued, with the exception of the years 2009 and 2010. Immediately following the global economic downturn, there was a dramatic increase in the number of participating institutions.

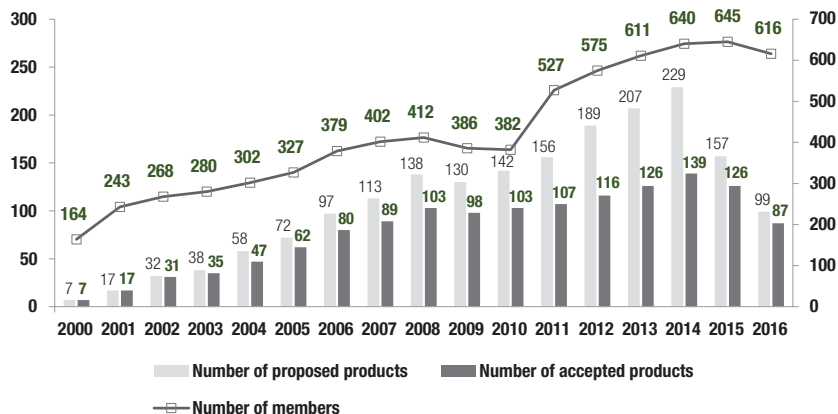


Figure 24.1 Growth of the KESLI consortium over time.

In order to reflect the opinions of its members, a steering committee composed of member representatives provides guidance and assists in the decision-making process for the consortium's operations. Member institutions allow the KESLI consortium to collect and analyze their licensing information and usage statistics to enhance not only member service but also nationwide scholarly information service to individual researchers.³ While the KESLI consortium has experienced steady growth, members have faced significant challenges. As discussed by Poynder, big deals in journal subscription packages have devoured not only large proportions of the budget for serials but also funds that would otherwise have been allocated to purchase monographs or other research and education tools.⁴ The situation has been exacerbated by unprecedented budget cuts and price increases for electronic resources, while researchers demand wider access to the newer journals and digital products that are launched each year. The budgets of many member institutions are not meeting increasing demands, and content gaps are widening. In order to alleviate some of these gaps within its given budget, since 2010 KESLI has purchased backfiles from five publishers to provide nationwide access for each member, as outlined in table 24.1.

A compelling rationale for facilitating access to backfiles of overseas journals is that access to recent issues can be discontinued or put in jeopardy if subscriptions are canceled. Backfile purchases become national

TABLE 24.1 Backfiles Purchased by KESLI Until 2013

Publisher	C Year*	Coverage	Data Volume	Target Users
Springer	2010	1832~1996	1,352 titles; 3 million articles	Springer package subscribers (165 institutions)
Institute of Physics	2012	1874~2011	107 titles; 400,000 articles	IOP package subscribers (60 institutions)
Royal Society of Chemistry	2012	1841~2007	80 titles; 260,000 articles	RSC package subscribers (39 institutions) + NDSL† users
Institution of Engineering and Technology	2013	1872~1993	75 titles; 90,000 articles	NDSL users
Science	2013	1880~1996	1 title; 180,000 articles	Science subscribers (538 institutions) + NDSL users (max. 3,000 users)

*Contract year.

†National Digital Science Library (NDSL) is a national science and technology information portal provided by KISTI. Every citizen in South Korea may register and use the information services offered by the NDSL portal.

assets and support their permanent use by researchers. According to a study by Google researchers, citations for period papers are more likely to be quoted, and these trends are becoming stronger over time.⁵

KESLI received proposals from several major publishers after making the decision to purchase a number of backfiles. In 2014, KESLI purchased ScienceDirect (SD) backfiles to serve the common interests of its members. Surprisingly high demand for the SD backfiles was identified, and greater advocacy for the resources was assumed. An additional advantage was that the local host of the package provided full-text services using our service platform. A total of 28 subject packages for licensing by over 600 institutions was proposed by Elsevier. In the past, data provided by publishers guided decisions on journal packages. However, KESLI employed a self-generated data-driven approach to determine the optimal choices among the 28 SD

packages offered to justify decisions made on behalf of both KESLI members and KISTI's funding body.

The remainder of this chapter discusses previous studies on the value of older literature and the data-driven approach used for library acquisition. We also explore data, including COUNTER usage statistics, denied usage (considered as potential demand), usage/denial trends over time, JIFs, price per article/citation, and the for-profit status of academic journals available online. We conclude with a novel data-driven and metric-based method for assessing the value of backfile packages.

RELATED WORK

Value of Older Literature

With the rapid digitization of older literature, sorting and obtaining older articles of interest have become considerably easier thanks to the accessibility of published articles online. Although it is often assumed that certain fields—particularly in the sciences—change so fast that older literature rapidly becomes outdated and is no longer relevant, substantial use of older literature by researchers has been shown in previous studies.⁶ One study found that approximately 15% of articles read by scientists were at least five years old or older.⁷ Another found that approximately 20% to 25% of articles downloaded were at least five years old in scientific, technical, and medical (STM) publishers' platforms.⁸ Elsevier reports that across the world, backfile usage on average represents 12% to 14% of the total usage of its journal content.⁹ A usage analysis of Wiley journal backfiles has revealed that there are many journals in different subject areas where backfile usage is higher than usage of more recent issues. Statistics for the top 25 backfiles were from 29% to 540% higher than front file usage. Wiley's research on backfile usage has also provided a further understanding of how far back researchers tend to use articles and which subject areas have been the most popular over past decades. Articles published in the 1990s and 1980s were the most frequently accessed across all Wiley journals, although the *Biological Journal of the Linnean Society* (previously entitled *Transactions of the Linnean Society of London*) published in 1791 is the oldest journal that is still

in active use today. The 1990s was the decade in which the greatest number of access requests was received, with over 34 million counts. The top 10 subject areas for which backfiles were most heavily sought include the earth sciences, general and introductory chemistry, polymer science and technology, general life sciences, organic chemistry, physics, chemical engineering, cell and molecular biology, business and management, and materials science.¹⁰ Interestingly, several areas regarded as fast-moving areas of study are included.

Studies on the assessment of literature obsolescence of information resources by citation analysis have been undertaken to provide guidance to libraries for retention policies regarding older journal volumes.¹¹ However, the impact of older literature as measured by citation counts increased steadily and substantially between 1990 and 2013, which is consistent with a recent report on usage analysis of journal backfiles.¹² Larivière and colleagues analyzed citations from a large collection of articles published between 1900 and 2004 and concluded that the useful life of scientific publications has increased steadily over all subject areas since the 1970s.¹³ Verstak and colleagues analyzed citations for articles published between 1990 and 2013 for 261 subject categories and nine broad areas of research on Google Scholar. In this study, the conclusion was consistent with that made by Larivière and colleagues and was confirmed in that there was an increase in citations of older work for seven of nine broad areas of research and 231 of 261 subject categories.¹⁴

A white paper published by the British Library has discussed why digitization and online accessibility to journal backfiles is important to publishers, libraries, and researchers.¹⁵ Most of all, for publishers, the digitization and selling of backfiles represents a profitable revenue stream. One-time fee-based contracts for permanent accessibility to backfiles enables an ongoing relationship between the client and the publisher, whereas these relationships can end if a subscription to ongoing issues is canceled. Back-digitization of complete journal listings often becomes a useful and reliable service for authors, editors, and societies associated with the publisher.

From the author's perspective, accessibility to older articles online has become essential in the current digital age in which most scholarly publications can only be reasonably accessed online. Many users give

up searching for and using older articles if they are not accessible online, even if the print versions are available in their local libraries. Access to older literature online makes it significantly easier for researchers to assess their needs for each article, reference research by others, follow trails of scientific thinking, connect theories to new data, and support hypotheses with old research, all of which supports the research life cycle. Additionally, a greater number of authors and their articles receive exposure online when older literature is digitized.

Libraries have historically purchased older journals in the print versions. A considerable number of journals now back-digitized by publishers have already been collected in physical library storage. Today's researchers will rarely use current or recent information if it is not available online, and the same is true for older information. The maintenance of physical archives and the provision of inter-library loan services for print materials is not cost-effective in the digital age. By replacing print versions with online versions, costs for print-based services and maintenance can be reduced considerably, whereas information services such as online searches, indexing, linking, and measuring the impact of research output with regard to usage and citations is much easier to provide to end users.¹⁶

Data-Driven Acquisition

Precisely what constitutes a good collection of older literature has remained an important question for libraries over the years. From the times of the ancient Alexandrian Library, librarians have sought to build collections not only for their contemporaries but also for foreseeable future users. After the Second World War, to keep pace with the deluge of publishing, librarians began approaching management of the selection process through approval plans, which were first introduced in 1962 by Richard Abel.¹⁷ Support for demand-driven acquisition (DDA) or patron-driven acquisition (PDA) was heavily discussed over the last quarter of the 20th century. Some believed that PDA best fit their patrons' needs.¹⁸ Others concluded that PDA not only would fulfill immediate user need but could also contribute to long-term collection strategies when implemented thoughtfully.¹⁹ Others doubted that patrons choosing materials to solve immediate information needs would be appropriate for the expectations of future researchers.²⁰

On the other hand, the need for a data-driven approach for the acquisition of electronic resources by libraries is growing rapidly. Gumpenberger and colleagues explored numerous data elements essential for journal assessment. These data elements are grouped into six categories:

1. Citations
2. Journal output (the number and length of articles and issues, the distribution of document types, the number and age of references, the internationality of contributing authors)
3. Journal content (analysis and comparison of published topics, thematic specialties, emergence of new research areas)
4. Journal perception (usage by downloads, click rates, social bookmarking)
5. Scientific communication (traditional citation analysis)
6. Journal management (editorial policy, the review process, pricing)²¹

According to Mitchell, evidence-based selection requires (1) access to a pool of titles for an upfront cost; (2) libraries identifying titles for purchase based on use; and (3) multiple variables to further consider: cost, scope of the pool, and long-term access needs.²² In addition, Mitchell proposed that usage patterns and needs beyond the frontlist could be used in negotiations for advantageous pricing agreements by applying an evidence-based model.

For acquisitions to be relevant to professional outside vendors, patrons, and librarians, libraries are still required to take a data-driven approach to approve plans suggested by outside vendors, to model the needs of their patrons, and to establish their own acquisition plans. As the prevalence of licenses for electronic products increases, consortia face pertinent decisions about how to allocate costs for these products among participating libraries.²³ As a consortium-managing organization, we were tasked with establishing a data-driven acquisition policy reflecting various aspects including volume, impact, price value, real and potential usage, and usage trends. Our members agreed to use their usage statistics for decision-making and evaluating purchases. The following section describes our data-driven acquisition of journal backfiles as part of a consortium-wide effort.

DATA AND METHODOLOGY

Data and Data Sources

In order to assess the 28 SD backfile packages, KESLI obtained data from multiple sources. For the 28 subject packages, the basic statistics for each package included the number of institutions purchasing each package, number of titles, number of issues, number of articles, and the list price of each package. Usage statistics were provided by the publisher and include the number of articles downloaded and the number of access attempts denied per title and per year for the previous five years. We obtained price value data for journals from the website journalprices.com.²⁴ In addition, various indicators were employed for quantitative assessment, as shown in table 24.2.

Data-Driven Methodology

Among the 16 parameters assessed, 7 marked in bold in table 24.2 were utilized for the selection criteria and the remaining were used for references or the calculation. The number of titles matched with WoS/SCOPUS and the package was divided by the number of titles in the package (A) to calculate the percentage of WoS/SCOPUS registered titles. Matching between the titles in each package and the WoS/SCOPUS registered journal is based on ISSN, the journal title, and the publisher name. Again, these three keys are used for matching journal titles between the SD packages and journalprices.com. We used the price value data in the 2013 edition of journalprices.com, which is based on prices for institutional subscriptions for the year 2013 and on citations and article counts for the years 2007–2011 as reported by *ISI Journal Citation Reports*. The value category is a broad categorization of a journal as “good” with an RPI (relative price index) less than 1.15, as “bad” with an RPI more than 1.75, and everything else as “medium.” RPI is calculated by dividing a journal’s CPI (composite price index) by the median CPI of the nonprofit journals in its subject category with positive subscription prices. CPI is the geometric mean of the price per article and the price per citation.²⁵

Number of downloads/denials per journal title per year provided by the publisher is used for calculating total number of potential demands for five years (2009–2013) and download and denial trends

TABLE 24.2 Data Sources and Parameters

Category	Parameter	Method	Data Source
Reference	Number of purchasing institutes	Per package, as provided	Publisher
Reference	Journal list	Per package, as provided	Publisher
Volume	Number of titles (A)	Per package, as provided	Publisher
	Number of issues	Per package, as provided	Publisher
	Number of articles	Per package, as provided	Publisher
Citation	% WoS registered titles	Matched and calculated per package	WoS
	% SCOPUS registered titles	Matched and calculated per package	SCOPUS
Price	List price of package	Per package, as provided	Publisher
Price Value	Number of 'Value Good' items (B)	Matched and counted per package	journalprices.com
	Number of total 'Value' category items (C)	Matched and counted per package	journalprices.com
	% 'Value Good' items ((B/C)*100)	Matched and calculated per package	journalprices.com
Usage	Total number of downloads for 5 years (D)	Provided per journal per year, calculated per package	Publisher
	Total number of denials for 5 years (E)	Provided per journal per year, calculated per package	Publisher
	Total number of potential demands for 5 years (D+E)	Sum of C and D, calculated per package	Publisher
	Average download trends for 5 years	Linear regression trend, calculated per package	Publisher
	Average denial trends for 5 years	Regression trend, calculated per package	Publisher

Note: **Boldface** indicates parameter utilized for selection criteria.

over five years. The linear trend line and the slope of the line can be obtained using Microsoft Excel's LINEST function.

We produced five-year average usage (downloads) and denial trend data for each package and total demand to calculate the average potential demand, as shown in table 24.3.

We then prepared a portfolio to compare packages with the given parameters and to identify the package with the best scores. After determining the mean value of seven parameters, we generated scores according to the number of data cells that were equal to or greater than the mean value for each package. The scores and rankings are presented in table 24.4.

Complementary Analysis for Final Decision-Making

Using the suggested selection method, seven packages with the best scores are highlighted in table 24.4. They include Chemical Engineering, The Lancet, Cell Press, Inorganic Chemistry, Materials Science, Organic Chemistry, and Physics General. Among the seven packages selected, five were removed from the candidate list. Cell Press permits its authors to share their manuscript (the post-peer review version that does not incorporate copyediting and proofing) via noncommercial hosting platforms after posting an embargo. The content provided by Cell Press is regarded as more accessible than other packages and is removed from the purchase list. Due to the funder's policy, which excludes the Arts and Humanities, Social Sciences, and Medicine, The Lancet was also removed from the list. Inorganic and Organic Chemistry packages are considered similar to the top-ranked package and were removed from the candidate list. The Materials Science package was also removed from the purchase list because of the large gap between the suggested price by the publisher and the price deemed acceptable. Finally, the purchase of two packages, Chemical Engineering and Physics General, were finalized.

The portfolio method is designed to select a package that satisfies the seven evaluation criteria evenly. To rank the most favorable package in accordance with the seven aspects mentioned and depict them graphically, spider charts were generated, as shown in figure 24.2. Among the 28 packages, 11 packages were excluded in accordance with funding policy or the Open Access policy of the publisher. The

TABLE 24.3 Total Usage and Average Usage Trends for Five Years (2009–2013) by Package

Subject	Usage					Usage Trends			
	No. Titles	No. Purchasers	No. Issues	No. Articles	Download	Denial	Total Demand	Avg. Download	Avg. Denial
Agricultural and Biological Sciences	130	18	13,928	216,957	179,105	198,027	377,132	26	17
Biochemistry, Genetics and Molecular Biology	146	20	21,390	491,806	259,156	372,467	631,623	44	12
Business, Management and Accounting	72	18	3,786	50,815	70,839	65,574	136,413	29	18
Cell Press	6	16	537	12,627	35,133	78,101	113,234	118	135
Chemical Engineering	38	19	4,442	80,470	156,600	125,448	282,048	95	101
Computer Science	116	14	8,973	126,752	169,231	106,445	275,676	77	18
Decision Sciences	37	13	3,259	43,633	62,799	46,346	109,145	59	13
Earth and Planetary Sciences	105	11	13,224	243,033	148,699	143,606	292,305	18	30
Economics, Econometrics and Finance	73	28	4,033	45,713	78,074	51,916	129,990	9	12
Energy and Power	67	17	6,442	103,598	202,835	142,332	345,167	30	8
Engineering and Technology	171	16	17,435	368,594	416,565	255,274	671,839	67	30
Environmental Science	91	18	7,817	119,071	81,807	113,863	195,670	10	13

High Energy/Nuclear Physics and Astronomy	40	15	10,768	205,212	186,246	80,566	266,812	148	53
Immunology and Microbiology	70	12	9,466	159,674	53,426	108,970	162,396	15	12
Inorganic Chemistry	10	18	3,039	69,601	48,698	36,423	85,121	87	82
Materials Sciences	111	26	15,902	338,808	671,963	337,174	1,009,137	131	47
Mathematics	25	13	4,859	85,184	33,041	27,119	60,160	50	17
Medicine and Dentistry	380	13	40,295	851,937	353,883	446,541	800,424	20	3
Neuroscience	83	12	11,357	242,845	83,513	117,817	201,330	32	22
Nursing and Health Professions	21	7	1,090	25,420	3,051	7,708	10,759	2	8
Organic Chemistry	15	23	4,238	116,474	294,316	113,819	408,135	-90	96
Pharmacology, Toxicology and Pharmaceutics	58	13	8,752	190,822	152,548	142,109	294,657	49	15
Physical and Analytical Chemistry	48	16	9,673	230,320	161,196	179,682	340,878	74	52
Physics General	81	14	17,417	389,443	399,924	274,233	674,157	144	39
Psychology	70	10	5,978	76,832	61,218	65,665	126,883	27	25
Social Science	129	16	7,539	101,707	77,929	57,675	135,604	21	11
The Lancet	1	7	8,914	398,075	14,202	33,191	47,393	456	1,317
Veterinary Science and Veterinary Medicine	22	4	2,445	39,247	8,351	20,201	28,552	6	4

TABLE 24.4 Portfolio of SD Backfile Packages

Subject	Scopus	Indexing (%)		Cost		Usage		Usage Trends			Score	Rank
		SCIE	Price (\$)	List Price (\$)	V. Good (%)	A. Demand	A. Download	A. Denial				
Agricultural and Biological Sciences	98	66	3,198	16	2,901	26	17	2	9			
Biochemistry, Genetics and Molecular Biology	99	58	3,590	15	4,326	44	12	1	20			
Business, Management and Accounting	97	11	1,376	16	1,895	29	18	0	27			
Cell Press	100	100	3,326	86	18,872	118	135	6	2			
Chemical Engineering	100	68	5,263	23	7,422	95	101	7	1			
Computer Science	97	59	2,872	12	2,377	77	18	1	20			
Decision Sciences	97	65	2,835	28	2,950	59	13	2	9			
Earth and Planetary Sciences	96	75	3,388	17	2,811	18	30	1	20			
Economics, Econometrics and Finance	99	14	1,560	8	1,781	9	12	1	20			
Energy and Power	94	60	2,269	14	5,152	30	8	0	27			
Engineering and Technology	97	72	3,255	6	3,929	67	30	2	9			
Environmental Science	100	57	3,351	32	2,150	10	13	2	9			
High Energy/Nuclear Physics and Astronomy	93	60	5,413	14	6,670	148	53	2	9			

Immunology and Microbiology	99	66	3,391	10	2,320	15	12	2	9
Inorganic Chemistry	100	60	8,873	0	8,512	87	82	5	4
Materials Sciences	98	61	5,397	29	9,091	131	47	5	4
Mathematics	100	80	3,290	10	4,813	50	17	2	9
Medicine and Dentistry	98	55	2,003	20	2,106	20	3	2	9
Neuroscience	100	73	4,120	6	2,426	32	22	2	9
Nursing and Health Professions	90	67	15,270	2	538	2	8	2	9
Organic Chemistry	93	93	6,446	28	27,209	-90	96	5	4
Pharmacology, Toxicology and Pharmaceutics	100	60	4,735	9	5,080	49	15	2	9
Physical and Analytical Chemistry	96	60	6,391	8	7,102	74	52	3	8
Physics General	99	65	6,053	14	8,323	144	39	5	4
Psychology	99	30	1,802	13	1,813	27	25	1	20
Social Science	98	19	1,333	4	1,051	21	11	1	20
The Lancet	100	100	1,952	100	47,393	456	1,317	6	2
Veterinary Science and Veterinary Medicine	95	68	3,012	11	1,359	6	4	1	20

remaining 17 packages were categorized into three groups according to their scores. The 17 packages are ranked according to each of the seven parameters. The color-coding for each package helps to visually correlate and contrast the packages over diverse aspects. By understanding which packages are more or less consistent with specific criteria, libraries can determine which package is better when it comes to their most desired criteria. Packages in Group 1 present higher scores evenly across the seven aspects. Only Organic Chemistry presents a very low score for “Download Trends.” Group 2 and Group 3 show lower scores on “% Value Good” and “Denial Trends” when compared to Group 1. Additionally, the spider charts also display the criteria that have higher or lower powers of discrimination. In this study “% SCOPUS registered titles” and “List Price” failed to differentiate the scores for the SD packages and therefore other assessment criteria should be sought.

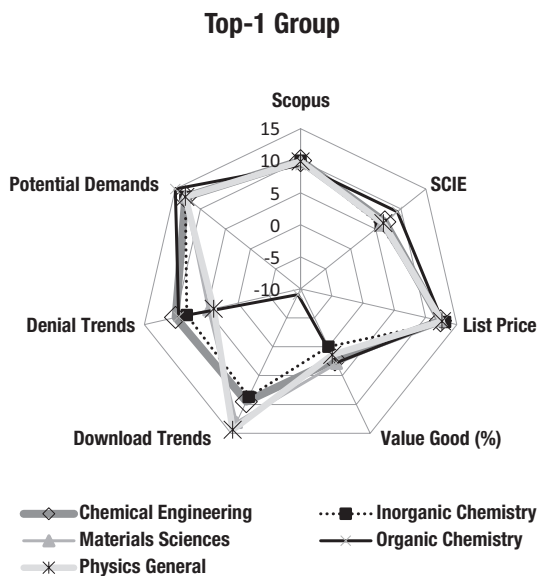
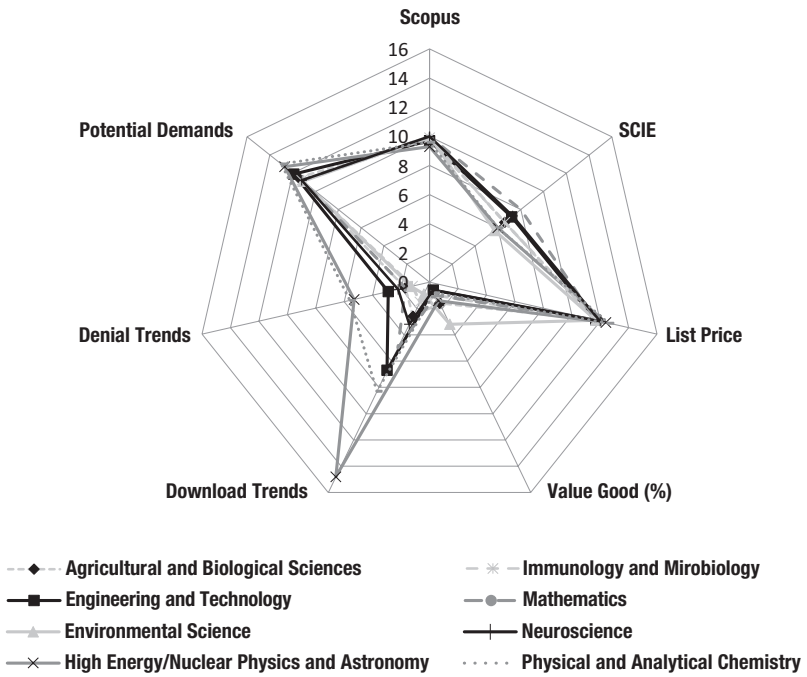


Figure 24.2 Spider charts for 17 packages using seven evaluation criteria.

Top-2 Group



Top-3 Group

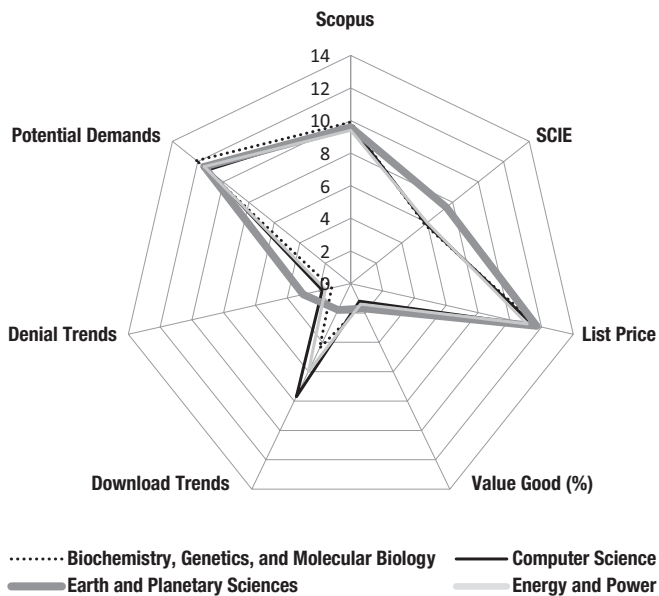


Figure 24.2 Continued.

RESULTS AND DISCUSSION

Results

By applying our data-driven approach, Cell Press, Chemical Engineering, Inorganic Chemistry, Materials Science, Organic Chemistry, Physics General, and The Lancet were selected as packages satisfying the seven assessment metrics (% WoS registered titles, % SCOPUS registered titles, list price of package, % 'Value Good' items, total number of potential demands for 5 years, average download trends for 5 years, average denial trends for 5 years). Two final backfile packages were selected for purchase after considering the funder's policy and the publisher's Open Access policy. Access to full-text articles in Chemical Engineering and Physics General have been provided to KESLI members through both the SD and NDSL (National Digital Science Library) platforms since January 2015. Figures 24.3 and 24.4 present the usage statistics of the two packages in 2015 and 2016, respectively.

The download counts for the two packages increased over two years (2015–2016), with the total number of downloads for Physics General being three times greater than those for Chemical Engineering. The number of downloads for Physics General was slightly greater than those for Chemical Engineering for five years (2009–2013), and the number of articles for Physics General was about five times greater than that of Chemical Engineering. The usage trends for Physics were greater than those for Chemical Engineering at the analysis stage for the selection. If only the usage-related metrics were considered

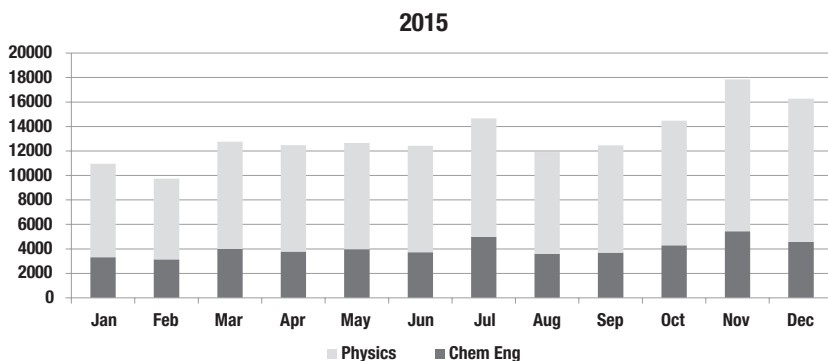


Figure 24.3 Journal usage statistics in 2015.

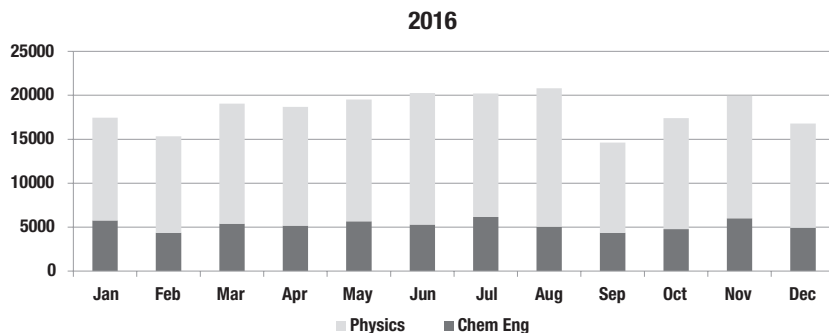


Figure 24.4 Journal usage statistics in 2016.

for the package selection or added weight to the usage-related metrics, the acquisition decision would have had a different outcome. That only usage statistics are available for assessing backfile acquisition at present is the cause of the discrepancy between the purchase decision and the assessment.

For the analysis of cost-effectiveness of this backfile acquisition, the cost per download (CPD) and pay-per-view (PPV) have been compared. PPV for SD is approximately \$40 according to Elsevier. As of December 2016 the CPD is \$6.00, whereas the CPD was \$14.37 in 2015. The CPD in 2016 is approximately six times lower than PPV. Even if the annual usage statistics are assumed to be identical to the average usage in 2015–2016, the CPD will be drastically lowered over time. In addition, as a greater awareness is provided for the backfill service and backfile usage increases, the CPD is likely to reduce further.

Issues and Restrictions

As discussed in the previous section, the weight of each evaluation criterion should not be equal, although we gave identical weight to the seven parameters. Greater or lesser weight should be assigned to the parameters according to the funder's policy and user demand. Parameters representing the quality of journal content such as times cited or JIF would also be advantageous for use in any decision-making. Additional indicators related to thematic specialties or the emergence of new research areas could be designed and then adopted into future data-driven acquisitions. Statistics or the proportion of

journals in which member institutions publish their articles or have been referenced should be considered for a more accurate and complete acquisition decision and assessment. Moreover, feedback from member institutions is desirable at the strategy design stage and at the assessment stage for backfile acquisition.²⁶

CONCLUSION

With rapid changes in the information environment encompassing libraries and library consortia, the need for EBA and DDA is growing substantially. This chapter discussed several studies of the value and growing impact of older literature and the need for DDA for the acquisition of electronic resources by libraries. A novel data-driven and metric-based method for assessing the value of backfile packages was suggested with the presentation of a project undertaken in South Korea. Seven indicators—% WoS registered titles, % SCOPUS registered titles, list price of package, % ‘Value Good’ items, total number of potential demands for 5 years, average download trends for 5 years, and average denial trends for 5 years—were incorporated as the selection criteria for quantitative analysis. The portfolio was adopted for ranking, and spider charts were generated to visualize the packages over diverse aspects.

The policies of the funder and the publishers were considered in making a final decision on SD backfile acquisition. Following the analysis, Chemical Engineering and Physics General packages were selected for purchase. After launching the backfile service through the SD and NDSL platforms since 2015, the number of downloads for both packages has been increasing steadily and showing acceptable cost-effectiveness. The CPD for the chosen backfiles is \$6 as of December 2016, whereas PPV for SD is approximately \$40. The CPD will be significantly further lowered over time. This chapter also discussed issues and restrictions relating to the suggested methodology. The design and assessment of the data-driven model for backfile acquisition will be improved by differentiating the weight of the chosen parameters by considering more quality-related and emerging field-related indicators, by reflecting local features, and by reviewing feedback from member institutions.

As explored in this chapter, the data-driven model could provide libraries and library consortia with comprehensive and layered insight, which is hardly obtained from the patron-driven or demand-driven methodology. Moreover, the data-driven model can be clearly understood and modified collaboratively by weighting or utilizing different source data in the process of design strategy, development of model, and the assessment of the model. Consequentially, the evidence-based decision-making process becomes more transparent and easily improved. However, if the partial and imperfect source data and ineffective parameters are used to design the data-driven model, the outcome will not be reliable. Thus more attention and involvement from various parties are required so that DDA will be reliable and useful.

ACKNOWLEDGMENT

This research was supported by a KISTI grant funded by the Korean government (Grant no. K-19-L01-C02-S02).

NOTES

1. Christian Gumpenberger, Ambros Wernisch, and Juan Gorraiz, "Reality-Check: Cost-Related Journal Assessment From a Practical Point of View," *Journal of Scientometric Research* 1, no. 1 (2012): 35–43, <https://doi.org/10.5530/jscires.2012.1.8>.
2. Richard Poynder, "The Big Deal: Not Price but Cost," *Information Today* 28, no. 8 (2011), <http://www.infotoday.com/it/sep11/The-Big-Deal-Not-Price-But-Cost.shtml>.
3. Youngim Jung, Jayhoon Kim, Minho So, Hwanmin Kim, "Statistical Relationships Between Journal Use and Research Output at Academic Institutions in South Korea," *Scientometrics* 103, no. 3 (2015): 751–77, <https://doi.org/10.1007/s11192-015-1563-0>.
4. Poynder, "The Big Deal."
5. Alex Verstak, Anurag Acharya, Helder Suzuki, Sean Henderson, Mikhail Iakhiaev, Cliff Chiung Lin, and Namit Shetty, "On the Shoulders of Giants: The Growing Impact of Older Articles," *Arxiv* 2014, <https://arxiv.org/abs/1411.0275>.

6. "Journal Backfiles in Scientific Publishing: A Marketing White Paper," British Library, 2007, <http://www.bl.uk/reshelp/atyourdesk/docsupply/productsservices/digitisation/journalbackfileswhitepaper.pdf>.
7. Carol Tenopir and Donald W. King, "Reading Behaviour and Electronic Journals," *Learned Publishing* 15, no. 4 (2002): 259–65, <https://doi.org/10.1087/095315102760319215>.
8. "Journal Backfiles in Scientific Publishing."
9. "Electronic Journal Backfile Purchase," St. Andrews University, Library Strategy Advisory Group meeting, Tuesday 11 December 2012, <https://www.st-andrews.ac.uk/media/library/documents/lsgag-meeting-documentation/Paper%20D%20-%20%20Journal%20backfiles.pdf>.
10. "The Value in Older Research: Usage of Wiley Backfiles," Wiley, 2014–2015.
11. Firoozeh Zare-Farashbandi and Parastoo P. Mohammadi, "A Study on Literature Obsolescence and Core Journals' Cost-benefit in Citations of the 'Scientific Medical Journal of Ahwaz,'" *Journal of Education and Health Promotion* 3, no. 93 (2014), <https://www.ncbi.nlm.nih.gov/pubmed/25250359>.
12. Vincent Larivière, Éric Archambault, and Yves Gingras, "Long-Term Variations in the Aging of Scientific Literature: From Exponential Growth to Steady-State Science (1900–2004)," *Journal of the American Society for Information Science and Technology* 59, no. 2 (2008): 288–96, <https://doi.org/10.1002/asi.20744>.
13. Ibid.
14. Verstack, "On the Shoulders of."
15. "Journal Backfiles in Scientific Publishing."
16. Ibid.
17. Edward Goedecken and Karen Lawson, "The Past, Present, and Future of Demand Driven Acquisitions in Academic Libraries," *College & Research Libraries* 76, no. 2 (2015): 205–21, <https://doi.org/10.5860/crl.76.2.205>.
18. Rick Anderson, "Collections 2021: The Future of the Library Collection Is Not a Collection," *Serials* 24, no. 3 (2011): 213, <https://serials.uksg.org/articles/10.1629/24211/>; Suzanne M. Ward, "Patrons: Your New Partners in Collection Development," *American Libraries* 45, no. 3/4 (March/April 2014): 13, <https://americanlibrariesmagazine>

- .org/2014/04/30/patrons-your-new-partners-in-collection-development/.
19. Jane Schmidt, "Demand-Driven Acquisitions: The Hegemony of the Canon Interrupted" (presentation at ACRL 2015, Portland, Oregon, March 25–28, 2015).
 20. William H. Walters, "Patron-Driven Acquisition and the Educational Mission of the Academic Library," *Library Resources & Technical Services* 56, no. 3 (July 2012): 199–213, <https://doi.org/10.5860/lrts.56n3.199>; Jean-Mark Sens and Anthony J. Fonseca, "A Skeptic's View of Patron-Driven Acquisitions: Is It Time to Ask the Tough Questions?," *Technical Services Quarterly* 30 no. 4 (2013): 359–71, <https://doi.org/10.1080/07317131.2013.818499>.
 21. Gumpenberger, "Reality-Check."
 22. Anne Mitchell, "Data Driven Acquisition in Libraries," Filmed at ALA Annual Conference in San Francisco, June 2015. <https://youtu.be/8PZEmHLjFGg>.
 23. Anderson, "Collections 2021."
 24. Journalprices.com is maintained by Professor Ted Bergstrom of the University of California, Santa Barbara, and Preston McAfee of Microsoft. The website collects information on academic journal prices offered by commercial and nonprofit publishers. This site has not been updated since 2014.
 25. A detailed explanation of these indices can be found at <http://www.journalprices.com/explanation2013.html>.
 26. As described in the introduction, the suggested data-driven methodology was first applied to the decision-making process for the resource acquisition in 2014. The established methodology was utilized for purchasing of other backfiles in the end of 2016. A task force was composed of member representatives to review the data-driven methodology, assess the packages, and provide their opinions. The result of this collaborative acquisition has not been generated quantitatively or qualitatively yet because the backfile service launched May 2017.

Bibliography

FUNDAMENTALS OF COLLABORATION

Collaboration and Teamwork

Absher, Lynda U., and Melissa Cardenas-Dow. "Collaborative Librarianship: A Minority Opinion." *Collaborative Librarianship* 8, no. 4 (2016): 161–64. <https://digitalcommons.du.edu/collaborativelibrarianship/vol8/iss4/3/>.

Adams, Tina M., and Paromita Biswas. "Nobody Knows and Nobody is Responsible: Issues in E-Books Workflow and Access." *Proceedings of the 2016 Charleston Library Conference*. West Lafayette, IN: Purdue University Press. <https://doi.org/10.5703/1288284316459>.

Alharrasi, Nabhan, and Khalfan Alhijji. "Factors Working Against Collaboration Among Omani Academic Libraries." *International Information & Library Review* 47, no. 3–4 (2015): 92–101. Accessed July 2, 2017. <https://doi.org/10.1080/10572317.2015.1133211>.

Al Harrasi, Nabhan, and Naeema Hassan Jabur. "Factors Contributing to Successful Collaboration Among Omani Academic Libraries." *Interlending & Document Supply* 42, no. 1 (2014): 26–32. <https://doi.org/10.1108/ILDS-02-2014-0015>.

Berg, Jacob, Angela Galvan, and Eamon Tewell. "Resilience, Grit, and Other Lies: Academic Libraries and the Myth of Resiliency." Presentation at the Association of College & Research Libraries (ACRL) Biennial Conference, Baltimore, MD, March 23, 2017. Accessed July 24, 2017. <https://eamontewell.files.wordpress.com/2008/03>

- /academic-libraries-and-the-false-promises-of-resiliency-laac2017.pdf.
- Bolman, Lee G., and Terrence E. Deal. *Reframing Organizations: Artistry, Choice, and Leadership*, 5th ed. San Francisco: Jossey-Bass, 2013.
- Bottorff, Tim, Robbin Glaser, Andrew Todd, and Barbara Alderman. "Branching Out: Communication and Collaboration Among Librarians at Multi-Campus Institutions." *Journal of Library Administration* 48, no. 3/4 (2008): 329–63. <https://doi.org/10.1080/01930820802289391>.
- Carter, Sunshine, and Danielle Ostendorf. "Processes and Strategies for Collaboratively Purchasing Electronic Resources." *Collaborative Librarianship* 9, no. 1 (2017): 58–71. <https://digitalcommons.du.edu/collaborativelibrarianship/vol9/iss1/10>.
- "The Critical Value of Short-Term Wins." *Harvard Management Update* 10, no. 3 (2005): 3.
- Evans, G. Edward. "Management Issues of Co-Operative Ventures and Consortia in the USA. Part One." *Library Management* 23, no. 4/5 (2002): 213–26. Accessed July 2, 2017. <https://doi.org/10.1108/01435120210429943>.
- Farkas, Meredith G. *Social Software in Libraries: Building Collaboration, Communication, and Community Online*. Medford, NJ: Information Today, 2007.
- Fisher, Roger, and Alan Sharp. *Getting It Done: How to Lead When You're Not in Charge*. New York: HarperCollins, 1998.
- Gratton, Lynda, and Tamara J. Erickson. "8 Ways to Build Collaborative Teams." *Harvard Business Review* 85, no. 11 (2007): 100–109.
- Hackman, J. Richard. *Leading Teams: Setting the Stage for Great Performances*. Boston: Harvard Business School Press, 2002.
- Harloe, Bart, Pat Hults, and Adam Traub. "What's the Use of Use? Return on Investment Strategies for Consortial DDA Programs." *Journal of Library Administration* 55, no. 3 (2015): 249–50. <https://doi.org/10.1080/01930826.2015.1034055>.
- "Janus Conference on Research Library Collections." Cornell University. <https://ecommons.cornell.edu/handle/1813/3767>.
- Kanter, Rosabeth Moss. "Collaborative Advantage: The Art of Alliances." *Harvard Business Review* 72, no. 4 (July/August 1994): 96–108. <https://hbr.org/1994/07/collaborative-advantage-the-art-of-alliances>.

- Kowalski, Meghan. "Breaking Down Silo Walls: Successful Collaboration Across Library Departments." *Library Leadership & Management* 31, no. 2 (2017): 1–15. <https://journals.tdl.org/llm/index.php/llm/article/view/7202>.
- Kurtzberg, Terri R. *Virtual Teams: Mastering Communication and Collaboration in the Digital Age*. Santa Barbara: Praeger, 2014.
- Landecker, Heidi. "Discrimination's 'Back Door': Tackling Language Bias on Campus." *The Chronicle of Higher Education* 63, no. 4 (September 18, 2016), B17–18. <http://www.chronicle.com/article/Judge-What-I-Say-Not-How-I/237777>.
- Langley, Anne, Edward G. Gray, and K. T. L. Vaughan. *Building Bridges: Collaboration Within and Beyond the Academic Library*. Oxford, England: Chandos Publishing, 2006.
- Lim, C. S., and M. Zain Mohamed. "Criteria of Project Success: An Exploratory Re-Examination." *International Journal of Project Management* 17, no. 4 (1999): 243–49. [https://doi.org/10.1016/S0263-7863\(98\)00040-4](https://doi.org/10.1016/S0263-7863(98)00040-4).
- Mueller, Mary Jo, Marc Johlic, and Susann Keohane. "Overcoming Accessibility Challenges of Web Conferencing." IBM Human Ability and Accessibility Center, 2013. Accessed July 22, 2017. https://www-03.ibm.com/able/education/downloads/IBM_Overcoming_Accessibility_Challenges_of_Web_Conferencing-CSUN13.pdf.
- Murray, Tara E. "Collaboration and Competition in Special Libraries." *Journal of Library Administration* 55, no. 2 (2015): 142–52. <https://doi.org/10.1080/01930826.2014.996440>.
- Neal, James G. "Advancing From Kumbaya to Radical Collaboration: Redefining the Future Research Library." *Journal of Library Administration* 51, no. 1 (2011): 66–76. <https://doi.org/10.1080/01930826.2011.531642>.
- Perini, Michael. "Conceptualizing Classified Staff as Collaborative Partners." *Collaborative Librarianship* 7, no. 4 (2015): 150–59. Accessed July 2, 2017. <http://digitalcommons.du.edu/collaborativelibrarianship/vol7/iss4/5>.
- Pham, Hue Thi, and Kerry Tanner. "Collaboration Between Academics and Library Staff: A Structurationist Perspective." *Australian Academic & Research Libraries* 46, no. 1 (2015): 2–18. <https://doi.org/10.1080/00048623.2014.989661>.
- Somerville, Mary M., Ivan Gaetz, and Janet Lee. "Rethinking Libraries in Terms of Learning and Working Collaboratively: An Interview

- with Mary Somerville." *Collaborative Librarianship* 2, no. 1 (2010): 38–43. Accessed July 2, 2017. <http://digitalcommons.du.edu/collaborativelibrarianship/vol2/iss1/7>.
- Stewart, Marcus M., Marcy Crary, and Beth K. Humberd. "Teaching Value in Diversity: On the Folly of Espousing Inclusion, While Practicing Exclusion." *Academy of Management Learning & Education* 7, no. 3 (2008): 374–86. <https://doi.org/10.5465/amle.2008.34251674>.
- Tamm, James W., and Ronald J. Luyet. *Radical Collaboration: Five Essential Skills to Overcome Defensiveness and Build Successful Relationships*. New York: HarperCollins, 2005.
- Thomson, Ann Marie, James L. Perry, and Theodore K. Miller. "Conceptualizing and Measuring Collaboration." *Journal of Public Affairs Research and Theory* 19, no. 1 (2009): 23–56. <https://doi.org/10.1093/jopart/mum036>.
- Tong, Min, and Cynthia Kisby. "A Partnership Approach to Multi-Campus Library Services." *Collaborative Librarianship* 1, no. 4 (2009): 133–44. <https://digitalcommons.du.edu/collaborativelibrarianship/vol1/iss4/3>.
- Vrkljan, Manda. "Breaking Down Silos: Using Stakeholder Analysis to Improve Communication Among Library Departments." Poster, Association of College & Research Libraries (ACRL) Biennial Conference, Baltimore, MD, March 23, 2017.
- Winer, Michael and Karen Ray. *Collaborations Handbook: Creating, Sustaining, and Enjoying the Journey*. St. Paul, MN: Amherst H. Wilder Foundation, 1994.
- Ziegler, Roy. "Janus in the Sunshine." *Florida Libraries* 51, no. 2 (Fall 2008): 10–23. <http://journals.fcla.edu/flalib/article/view/84563/81599>.

Conflict Management

- Allred, Carol B. "The Anatomy of Conflict: Some Thoughts on Managing Staff Conflict." *Law Library Journal* 79, no. 8 (1987): 7–31.
- Bressen, Tree. "Consensus Decision Making." In *The Change Handbook: The Definitive Resource on Today's Best Methods for Engaging Whole Systems*, edited by Peggy Holman, Tom Devane, and Steven Cady, 212–17. San Francisco, CA: Berrett-Koehler Publishers, 2007.
- "Conflict (Process)." *Wikipedia*. Last modified July 5, 2017. [https://en.wikipedia.org/wiki/Conflict_\(process\)](https://en.wikipedia.org/wiki/Conflict_(process)).

- “Consensus Decision-Making.” *Wikipedia*. Last modified July 4, 2017. https://en.wikipedia.org/wiki/Consensus_decision-making.
- “Consensus Decision-Making: A Virtual Learning Center for People Interested in Consensus.” Accessed July 7, 2017. <http://www.consensusdecisionmaking.org/>.
- Eidelson, Roy J., and Judy I. Eidelson. “Dangerous Ideas: Five Beliefs That Propel Groups Toward Conflict.” *American Psychologist* 58, no. 3 (2003): 182–92. <https://doi.org/10.1037/0003-066X.58.3.182>.
- Ford, Emily. “Consensus Decision-Making and Its Possibilities in Libraries.” *In the Library With the Lead Pipe*. Accessed July 12, 2017. <http://www.inthelibrarywiththeleadpipe.org/2012/consensus/>.
- Gabriel, Raquel J. “Diversity Dialogues: Managing Conflict.” *CUNY Academic Works*. Accessed July 12, 2017. http://academicworks.cuny.edu/cl_pubs/87.
- Kathman, Jane McGurn, and Michael D. Kathman. “Conflict Management in the Academic Library.” *Journal of Academic Librarianship* 16, no. 3 (1990): 145–49.
- Mallappa, Vijayakumar, and K. S. Manoj. “Conflict Management in Management Library Professionals.” *Journal of Library & Information Technology* 35, no. 3 (2015): 9–15.
- Pattas, William, and Steven L. Gilliland. “Conflict in the Large Academic Library: Friend or Foe?” *Journal of Academic Librarianship* 18, no. 1 (1992): 2430.
- Rahim, M. Afzalur. *Managing Conflict in Organizations*. 4th ed. New Brunswick: Transaction Publishers, 2011.
- Runyon, Robert S. “Power and Conflict in Academic Libraries.” *Journal of Academic Librarianship* 3, no. 4 (1977): 200–205.
- Schutt, Randy. “Consensus Is Not Unanimity: Making Decisions Cooperatively.” *Vernal Project*. Last modified June 13, 2016. <http://www.vernalproject.org/papers/process/ConsensusNotUnanimity.html>.

Project Management

- Anderson, Erling S., Kristoffer V. Grude, and Tor Haug. *Goal Directed Project Management: Effective Techniques and Strategies*. London: Kogan Page, 2009.
- Besner, Claude, and Brian Hobbs. “The Perceived Value and Potential Contribution of Project Management Practices to Project Success.” *Project Management Journal* 37, no. 3 (August 2006): 37–48. <https://doi.org/10.1177/875697280603700305>.

- Biafore, Bonnie, and Teresa Stover. *Your Project Management Coach: Best Practices for Managing Projects in the Real World*. Indianapolis: John Wiley & Sons, 2012.
- Burke, Rory, and Steve Barron. *Project Management Leadership: Building Creative Teams*. Chichester, UK: John Wiley & Sons, 2014.
- Bynes, Cathy. "Eliciting Project Requirements With Radiance." Paper presented at PMI Global Congress 2014—North America, Phoenix, AZ, October 26–28, 2014. <https://www.pmi.org/learning/library/eliciting-project-requirements-radiance-9366>.
- Dow, William, and Bruce Taylor. *Project Management Communications Bible*. Indianapolis: Wiley Publishing, 2008.
- Graham, Nick. *Project Management Checklists for Dummies*. Chichester, UK: John Wiley & Sons, 2014.
- Hackett, Donald, and Charles L. Martin. *Facilitation Skills for Team Leaders*. Menlo Park, CA: Crisp Publications, 1993.
- Hay, David C. *Requirements Analysis: From Business Views to Architecture*. Upper Saddle River, NJ: Prentice Hall, 2003.
- Kendrick, Tom. *Identifying and Managing Project Risk: Essential Tools for Failure-Proofing Your Project*. New York: AMACOM, 2009.
- Martin, Michael G. *Delivering Project Excellence With the Statement of Work*. 2nd ed. Vienna, VA: Management Concepts, 2010.
- Norman, Eric S., Shelly A. Brotherton, and Robert T. Fried. *Work Breakdown Structures: The Foundation for Project Management Excellence*. Hoboken, NJ: Wiley, 2008.
- Okes, Duke. *Root Cause Analysis: The Core of Problem Solving and Corrective Action*. Milwaukee: ASQ Quality Press, 2009.
- Project Management Institute. *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*. 6th ed. Newtown Square, PA: Project Management Institute, 2017.
- Rhodes, Lucy, and Ray Dawson. "Lessons Learned From Lessons Learned." *Knowledge and Process Management* 20, no. 3 (July/September 2013): 154–60. <https://doi.org/10.1002/kpm.1415>.
- Vinopal, Jennifer. "Project Portfolio Management for Academic Libraries: A Gentle Introduction." *College & Research Libraries* 73, no. 4 (July 2012): 379–89. <https://doi.org/10.5860/crl-277>.
- Wysocki, Robert K. *Effective Project Management: Traditional, Agile, Extreme*. 6th ed. Indianapolis: John Wiley & Sons, 2012.

PART 1: COLLABORATIONS BETWEEN ACQUISITIONS AND COLLECTION MANAGEMENT

- ACRL Research Planning and Review Committee. "2010 Top Ten Trends in Academic Libraries: A Review of the Current Literature." *College and Research Libraries News* 71, no. 6 (2010): 286–92. <https://doi.org/10.5860/crln.71.6.8385>.
- "ARL Expenditure Trends in ARL Libraries, 1986–2015." *ARL Statistics, 2014–15*. Washington, D.C.: Association of Research Libraries. <https://www.arl.org/storage/documents/expenditure-trends.pdf>.
- Chrzastowski, Tina, and Lynn Wiley. "E-Book Use and Value in the Humanities: Scholars' Practices and Expectations." *Library Resources and Technical Services* 59, no. 4 (2015): 172–86. <http://doi.org/10.5860/lrts.59n4.172>.
- Wiley, Lynn, Tina E. Chrzastowski, and Stephanie Baker. "A Domestic Monograph Collection Assessment in Illinois Academic Libraries: What Are We Buying and How Is It Used?" *Interlending & Document Supply* 39, no. 2 (2011): 167–75.
- Wiley, Lynn, and Elizabeth Clarage. "Building on Success: Evolving Local and Consortium Purchase-on-Demand Programs." *Interlending & Document Supply* 40, no. 2 (2012): 105–10.

PART 2: COLLABORATIONS BETWEEN ACQUISITIONS AND CATALOGING

- Abrams, Kimberly R. "Electronic Resource Management and Design." *Journal of Electronic Resources Librarianship* 27, no. 3 (2015): 151–64. <https://doi.org/10.1080/1941126X.2015.1059642>.
- Bazirjian, Rosanne. "Automation and Technical Services Organization." *Library Acquisitions: Practice and Theory* 17, no. 1 (Spring 1993): 73–77. [https://doi.org/10.1016/0364-6408\(93\)90033-3](https://doi.org/10.1016/0364-6408(93)90033-3).
- "Best Library and Information Studies Programs." *U.S. News & World Report*. Accessed August 1, 2017. <https://www.usnews.com/best-graduate-schools/top-library-information-science-programs/library-information-science-rankings>.
- Branton, Ann, and Tracy Englert. "Mandate for Change: Merging Acqui-

- sitions and Cataloging Functions Into a Single Workflow.” *Library Collections, Acquisitions, & Technical Services* 26, no. 4 (2002): 345–54. <https://doi.org/10.1080/14649055.2002.10765871>.
- Breeding, Marshall. “Library Systems Report 2017.” *American Libraries* 48, no. 5 (May 2017): 22–35. Accessed July 21, 2017. <http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=122898577>.
- Breeding, Marshall. “The New Frontier.” *Library Journal* 136, no. 6 (2011): 24–34.
- Breeding, Marshall. “New Library Collections, New Technologies, New Workflows.” *Computers in Libraries* 32, no. 5 (2012): 23–25. Accessed July 21, 2017. https://tamuct.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsgao&AN=eds_gcl.294194464.
- Breeding, Marshall. “The Rush to Innovate.” *Library Journal* 138, no. 6 (2013): 32.
- Brice, Elizabeth, and Ross Shanley-Roberts. “Beyond the Catalog: The Evolution of the Technical Services Librarian at Miami University, Oxford, Ohio.” In *More Innovative Redesign and Reorganization of Library Technical Services*, edited by Bradford Lee Eden, 11–19. Westport, CT: Libraries Unlimited, 2009.
- Brubaker, Noah, Susan Leach-Murray, and Sherri Parker. “Implementing a Discovery Layer: A Rookie’s Season.” *Computers in Libraries* 32, no. 3 (2012): 12–19.
- Burris, Christian, Derrick Hiatt, and Steve Kelley. “The Intersection of Serials Acquisitions, Cataloging, and Electronic Resource Management.” *Technicalities* 33, no. 3 (2013): 12–15.
- Coats, Jacqueline, and Joseph Kiegel. “Automating the Nexus of Book Selection, Acquisitions, and Rapid Copy Cataloging.” *Library Collections, Acquisitions, & Technical Services* 27, no. 1 (2003): 33–44. <https://doi.org/10.1080/14649055.2003.10765894>.
- Crooker, Cynthia, Robert Killheffer, and Cecile Mandour. “The Reorganization of Technical Services at Yale.” *Technical Services Quarterly* 9, no. 1 (1991): 27–41. https://doi.org/10.1300/J124V09N01_04.
- Doherty, Brian, and Alison Piper. “Creating a New Organizational Structure for a Small Academic Library: The Merging of Technical Services and Access Services.” *Technical Services Quarterly* 32, no. 2 (2015): 160–72. <https://doi.org/10.1080/07317131.2015.998466>.

- “EBSCO Information Services Products & Services.” EBSCO. Accessed July 29, 2017. <https://www.ebsco.com/products>.
- Eden, Bradford Lee. “The New User Environment: The End of Technical Services?” *Information Technology and Libraries* 29, no. 2 (2010): 93–100. <https://doi.org/10.6017/ital.v29i2.3148>.
- Evans, G. Edward, Sheila S. Intner, and Jean Wells. *Introduction to Technical Services*. Greenwood Village, CO: Libraries Unlimited, 2002. Accessed July 19, 2017. <http://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=80812>.
- Fletcher, Peter, and Roxanne M. Peck. “Cataloging on Receipt for Monographs: Merging Cataloging and Acquisitions Functions at UCLA.” *Cataloging & Classification Quarterly* 51, no. 1–3 (2013): 129–38. <https://doi.org/10.1080/01639374.2012.731679>.
- Freeborn, Robert B., and Rebecca L. Mugridge. “The Reorganization of Monographic Cataloging Processes at Penn State University Libraries.” *Library Collections, Acquisitions, & Technical Services* 26, no. 1 (2002): 35–45. <https://doi.org/10.1080/14649055.2002.10765816>.
- Fu, Ping, and Moira Fitzgerald. “A Comparative Analysis of the Effect of the Integrated Library System on Staffing Models in Academic Libraries.” *Information Technology & Libraries* 32, no. 3 (2013): 47–58. Accessed July 21, 2017. <http://search.ebscohost.com/login.aspx?direct=true&db=eue&AN=90292067>.
- “Fundamentals of Acquisitions.” Association for Library Collections & Technical Services. Accessed August 19, 2017. http://www.ala.org/alcts/confevents/upcoming/webcourse/foa/ol_templ.
- “Fundamentals of Cataloging.” Association for Library Collections & Technical Services. Accessed August 19, 2017. http://www.ala.org/alcts/confevents/webcourse/foc/ol_templ.
- Gibson, Sally. “Creating Solutions Instead of Solving Problems: Emerging Roles for Technical Services Departments.” *Technical Services Quarterly* 33, no. 2 (2016): 145–53. <https://doi.org/10.1080/07317131.2016.1134998>.
- “iSchool at Illinois Full Catalog.” School of Information Sciences, The iSchool at Illinois. Accessed July 23, 2017. <https://ischool.illinois.edu/degrees-programs/courses/is578>.
- “Item Search in Amazon.” Ex Libris. Accessed August 26, 2017. https://knowledge.exlibrisgroup.com/Alma/Product_Documentation

- /Alma_Online_Help_(English)/Acquisitions/100Advanced_Tools/008_Item_Search_in_Amazon.
- Kemp, Rebecca. "MARC Record Services: A Comparative Study of Library Practices and Perceptions." *The Serials Librarian* 55 no. 3 (2008): 379–410. <https://doi.org/10.1080/03615260802056367>.
- Laskowski, Mary S., and Jennifer A. Maddox Abbott. "Behind the Scenes but Not Behind the Times: Technical Services Support for New Service Model Initiatives." *Technical Services Quarterly* 33, no. 1 (2016): 1–13. <https://doi.org/10.1080/07317131.2015.1093816>.
- Moore, Julie Renee, and James L. Weinheimer. "The Future of Traditional Technical Services." In *Rethinking Library Technical Services: Redefining Our Profession for the Future*, edited by Mary Beth Weber, 1–17. Lanham: Rowan and Littlefield Publishers, 2015.
- Neumeister, Susan M., and Judith Hopkins. "Copy Cataloging in an Acquisitions Department." *The Acquisitions Librarian* no. 12 (1994): 81–94. https://doi.org/10.1300/J101v06n12_09.
- Slight-Gibney, Nancy. "FastCat." *The Acquisitions Librarian* no. 13–14 (January 1995): 121–40. https://doi.org/10.1300/J101v07n13_09.
- Spring, Kathleen, Megan Drake, and Siôn Romaine. "How Is That Going to Work? Rethinking Acquisitions in the Next-Generation ILS." In *Proceedings of the Charleston Library Conference 2013*, 372–77. West Lafayette, IN: Purdue University. <https://doi.org/10.5703/1288284315289>.
- Stamm, Andrea L. "The End of an Era Builds New Team Spirit: Team Playing at Its Best." *Cataloging & Classification Quarterly* 30, no. 2/3 (2000): 357–72. https://doi.org/10.1300/J104v30n02_13.
- "TWU LIS Program Tracks." Texas Woman's University. Last updated February 21, 2017. <http://www.twu.edu/slis/programs-admission-requirements/program-tracks/>.
- "Who We Are." Proquest. Accessed July 29, 2017. <http://www.proquest.com/about/who-we-are.html>.
- Wilson, Kristen. "Introducing the Next Generation of Library Management Systems." *Serials Review* 38, no. 2 (2013): 110–23. Accessed July 21, 2017. <http://search.ebscohost.com/login.aspx?direct=true&db=edswss&AN=000307618600008>.
- Wilson, Kristen. "The Knowledge Base at the Center of the Universe."

- Library Technology Reports* 52, no. 6 (2016): 1–37. <https://journals.ala.org/index.php/ltr/issue/view/606>.
- “WorldShare Management Services.” OCLC. <https://www.oclc.org/en/worldshare-management-services.html>.
- Young, Caroline. “Trends in Library Systems: Improved Workflow Processes, Greater Collaboration, and Unbounded Openness.” *Legal Reference Services Quarterly* 32, no. 4 (2013): 307–19. Accessed July 21, 2017. <https://doi.org/10.1080/0270319X.2013.842824>.
- Yue, Paoshan. “Transforming Technical Services: A Case Study at the University of Nevada, Reno Libraries.” *Technical Services Quarterly* 30, no. 3 (2013): 253–65. <https://doi.org/10.1080/07317131.2013.785774>.

PART 3: ACQUISITIONS, INTERLIBRARY LOAN, AND RESERVES

- “2016 LTS Client Satisfaction Survey Initial Report.” Lehigh University, Library & Technology Services. Accessed July 5, 2017. <http://ltsnews.lehigh.edu/node/232>.
- “Borrowing Web Reports.” *ILLiad 8.7 Documentation*. Atlas Systems. Last modified November 8, 2018. <https://support.atlas-sys.com/hc/en-us/articles/360011909413-Borrowing-Web-Reports>.
- Davies, Tony. “The Evolution of an E-book Demand-Driven Acquisition Programme at Swinburne University of Technology.” *Insights* 30, no. 2 (2017): 36–43. <https://doi.org/10.1629/uksg.354>.
- Egan, Nancy, Simone L. Yearwood, and Curtis L. Kendrick. “Patron-Driven Acquisitions at the City University of New York: A Case Study.” *Technical Services Quarterly* 33, no. 2 (2016): 131–44. <https://doi.org/10.1080/07317131.2016.1134997>.
- Gee, Charles William. “Book-Buying Through Interlibrary Loan: Analysis of the First Eight Years at a Large Public University Library.” *Journal of Interlibrary Loan, Document Delivery & Electronic Reserves* 24, no. 5 (2014): 133–45. <https://doi.org/10.1080/1072303X.2015.1018473>.
- Goldfinger, Rebecca Kemp, and Mark Hemhauser. “Looking for Trouble (Tickets): A Content Analysis of University of Maryland, College Park E-Resource Access Problem Reports.” *Serials Review* 42, no. 2 (2016): 84–97. <https://doi.org/10.1080/00987913.2016.1179706>.

- Herrera, Gail, and Judy Greenwood. "Patron-Initiated Purchasing: Evaluating Criteria and Workflows." *Journal of Interlibrary Loan, Document Delivery and Electronic Reserve* 21, no. 1–2 (2011): 9–24. <https://doi.org/10.1080/1072303X.2011.544602>.
- Heuer, Daniel. "ILLiad, GIST, and EBL: How Bucknell University's PDA + DDA Collection Development Model Gives Patrons What They Want, While Saving the Library Hundreds of Thousands of Dollars a Year." Paper presented at the Charleston Library Conference, Charleston, South Carolina, November 5–8, 2014.
- Huang, David. "Flipped Interlibrary Loan (F.I.L.L.): Putting Interlibrary Loan in the Driver's Seat of Acquisitions." *Journal of Interlibrary Loan, Document Delivery & Electronic Reserve* 25, no. 3–5 (2015): 61–74. <https://doi.org/10.1080/1072303X.2016.1254704>.
- Imamoto, Becky, and Lisa Mackinder. "Neither Beg, Borrow, nor Steal: Purchasing Interlibrary Loan Requests at an Academic Library." *Technical Services Quarterly* 33, no. 4 (2016): 371–85. <https://doi.org/10.1080/07317131.2016.1203642>.
- Interlibrary Loan Code for the United States Explanatory Supplement*. American Library Association, Reference and User Services Association. <http://www.ala.org/rusa/resources/guidelines/interlibraryloancode>.
- Kochan, Carol, and Jennifer Duncan. "Analysis of Print Purchase on Demand Titles Ordered via Interlibrary Loan: A Collection Development Perspective." *Collection Management* 41, no. 2 (2016): 51–65. <https://doi.org/10.1080/01462679.2016.1174653>.
- Leon, Lars, and Nancy Kress. "Looking at Resource Sharing Costs." *Interlending and Document Supply* 40, no. 2 (2012): 81–87. <https://doi.org/10.1108/02641611211239542>.
- Link, Forrest E., Yuji Tosaka, and Cathy Weng. "Mining and Analyzing Circulation and ILL Data for Informed Collection Development." *College & Research Libraries* 76, no. 6 (2015): 740–55. <https://doi.org/10.5860/crl.76.6.740>.
- Percy, Joanne. "E-Book Lending: The Challenges Facing Interlibrary Loan." *Interlending & Document Supply* 41, no. 2 (2013): 43–47. <https://doi.org/10.1108/ILDS-02-2013-0006>.
- Pitcher, Kate, Tim Bowesox, Cyril Oberlander, and Mark Sullivan. "Point-of-Need Collection Development: The Getting It System Toolkit (GIST) and a New System for Acquisitions and Interlibrary Loan Integrated

- Workflow and Collection Development.” *Collection Management* 35 (2010): 222–36. <https://doi.org/10.1080/01462679.2010.486977>.
- “Purchase on Demand (ILL Trends & Challenges).” Minitex, Interlibrary Loan Committee. Accessed July 4, 2017. <http://www.minitex.umn.edu/committees/ill/Tools/Purchase.aspx>.
- Rosenheck, Donna. “OCLC; From an Historical Perspective.” *Katharine Sharp Review* no. 4 (Winter 1997): 1–7. <http://hdl.handle.net/2142/78252>.
- Russell, Carrie. *Complete Copyright: An Everyday Guide for Librarians*. Chicago: American Library Association, 2004.
- Schmidt, LeEtta M. “When the Pilot Is Over: Picking the Program and Making It Stick, Purchase on Demand at the University of South Florida.” *Journal of Interlibrary Loan, Document Delivery & Electronic Reserves* 22, no. 1 (2012): 59–66. <https://doi.org/10.1080/1072303X.2012.667057>.
- Senecal, Kristin. “Document Delivery and Interlibrary Loan: Time to Take the FAX Machine Out of the Closet.” *Journal of Interlibrary Loan & Information Supply* 3, no. 4 (1993): 43–50. https://doi.org/10.1300/J472v03n04_08.
- Sewell, Bethany B., and Forrest E. Link. “Developing Workflows for Short-Term Loans of Ebooks as an Adjunct to ILL: Part Two.” *Technical Services Quarterly* 34 no. 1 (2017): 34–39. <https://doi.org/10.1080/07317131.2017.1238200>.
- Shrauger, Kristine J., Cara Mia Calabrese, and Peter Spyers-Duran II. “ILL Data Drives Technical Services Projects.” *Technical Services Quarterly* 33, no. 1 (2015): 14–22. <https://doi.org/10.1080/07317131.2015.1093818>.
- Ta-Moore, Hong, and Kathleen S. Mannino. “A Case for Integration of Interlibrary Loan and Reference.” *Journal of Interlibrary Loan, Document Delivery & Electronic Reserves* 22, no. 5 (2012), 197–203. <https://doi.org/10.1080/1072303X.2012.723672>.
- Thompson, Hilary H., and Jennifer E. M. Cotton. “Top Textbooks on Reserve: Creating, Promoting, and Assessing a Program to Help Meet Students’ Need for Affordable Textbooks.” *Journal of Access Services* 14, no. 2 (2017): 53–67. <https://doi.org/10.1080/15367967.2016.1257916>.
- van Dyk, Gerrit. “Interlibrary Loan Purchase-on-Demand: A Misleading Literature.” *Library Collections, Acquisitions and Technical Services* 35, no. 2/3 (2011): 83–89. <https://doi.org/10.1016/j.lcats.2011.04.001>.

Zopfi-Jordan, David. "Purchasing or Borrowing: Making Interlibrary Loan Decisions That Enhance Patron Satisfaction." *Journal of Interlibrary Loan, Document Delivery, and Electronic Reserve* 18, no. 3 (2008): 387–94. <https://doi.org/10.1080/10723030802186447>.

PART 4: COLLABORATIONS BETWEEN ACQUISITIONS AND E-RESOURCE MANAGEMENT

"Academic Library Statistics." Association of College & Research Libraries. <http://www.ala.org/acrl/publications/trends>.

Armstrong, Kim, Bob Nardini, Peter McCracken, Rick Lugg, and Kay G. Johnson. "When Did (E)-Books Become Serials?" *Serials Librarian* 56, no. 1–4 (January–June 2009): 129–38. <https://doi.org/10.1080/03615260802679432>.

Beals, Nancy. "Transformations of Acquisitions at Wayne State University." *Against the Grain* 25, no. 2 (April 2013): 30. <https://doi.org/10.7771/2380-176X.6471>.

Bracke, Paul. "Alma at Purdue: The Development Partnership Experience." *Information Standards Quarterly* 24, no. 4 (Fall 2012): 16–20. https://groups.niso.org/apps/group_public/document.php?document_id=9925.

Breeding, Marshall. "Balancing the Management of Electronic and Print Resources." *Computers in Libraries* 34, no. 5 (June 2014): 26–28. <http://www.infotoday.com/cilmag/jun14/Breeding--Balancing-the-Management-of-Electronic-and-Print-Resources.shtml>.

Burris, Christian, Derrik Hiatt, and Steve Kelley. "The Intersection of Serials Acquisitions, Cataloging, and Electronic Resource Management." *Technicalities* 33, no. 3 (May/June 2013): 12–15. <http://hdl.handle.net/10339/38661>.

Chisman, Janet, Greg Matthews, and Chris Brady. "Electronic Resource Management." *Serials Librarian* 52, no. 3/4 (June 2007): 297–303. https://doi.org/10.1300/J123v52n03_08.

"CIAP Factbook 2016." Memorial University of Newfoundland, Centre for Institutional Analysis and Planning. <https://www.mun.ca/ciap/Analysis/Factbook/Factbook2016.php>.

Cole, Louise. "A Journey Into E-Resource Administration Hell." *Serials Librarian* 49, no. 1/2 (August 2005): 141–54. https://doi.org/10.1300/J123v49n01_05.

- Collins, Maria, and Jill E. Grogg. "Building a Better ERMS." *Library Journal* 136, no. 4 (2011): 22–28. http://lj.libraryjournal.com/2011/03/digital-resources/building-a-better-erms/#_.
- "Council of Library Deans (COLD)." California State University, <http://www.calstate.edu/library/content/cold/index.shtml>.
- Cromity, Jamal, and Ulla De Stricker. "Silo Persistence: It's Not the Technology, It's the Culture!" *New Review of Information Networking* 16, no. 2 (November 2011): 167–84. <https://doi.org/10.1080/13614576.2011.619924>.
- "CSU Library Statistic Reports," California State University, Institutional Research and Analyses. <http://www.calstate.edu/library/content/statistics/>.
- Glasser, Sarah. "Disappearing Jobs: Staffing Implications for Print Serials Management." *Serials Review* 36, no. 3 (2010): 138–146. <https://doi.org/10.1016/j.serrev.2010.06.002>.
- "IPEDS: Integrated Postsecondary Education Data System." National Center for Education Statistics. <https://nces.ed.gov/ipeds/>.
- Kowalski, Meghan. "Breaking Down Silo Walls: Successful Collaboration Across Library Departments." *Library Leadership & Management* 31, no. 2 (2017): 1–15. <https://journals.tdl.org/llm/index.php/llm/article/view/7202>.
- Leibowitz, Faye R. "Serials Staffing for the Twenty-First Century and Beyond." *Serials Review* 28, no. 3 (2002): 195–200. [https://doi.org/10.1016/S0098-7913\(02\)00192-2](https://doi.org/10.1016/S0098-7913(02)00192-2).
- "Libraries of the Future: CSU LA Basin Pilot Project for Developing Cost-Effective Library Services and Resources for Student and Faculty Success in the 21st Century." California State University Libraries. Feb. 1, 2013. https://www.calstate.edu/library/documents/LOFT_Recommendations_Report_v1_0.pdf.
- Meagher, Elizabeth S., and Christopher C. Brown. "Turned Loose in the OPAC: URL Selection, Addition, and Management Process." *Library Hi Tech* 28, no. 3 (2010): 360–76. <https://doi.org/10.1108/07378831011076620>.
- Miller, Laura Newton, David Sharp, and Wayne Jones. "70% and Climbing: E-Resources, Books, and Library Restructuring." *Collection Management* 39, no. 2–3 (2014): 110–26. <https://doi.org/10.1080/01462679.2014.901200>.
- Mugridge, Rebecca, and Nancy M. Poehlmann. "Internal Customer Service Assessment of Cataloging, Acquisitions, and Library Systems." *OCLC*

- Systems & Services: International Digital Library Perspectives* 31, no. 4 (2015): 219–48. <https://doi.org/10.1108/OCLC-12-2014-0037>.
- Ohler, Lila A. “The Keys to Successful Change Management for Serials.” *The Serials Librarian* 51, no. 1 (September 2006): 37–72. https://doi.org/10.1300/J123v51n01_03.
- Pan, Denise, and Zaana Howard. “Reorganizing a Technical Services Division Using Collaborative Evidence Based Information Practice at Auraria Library.” *Evidence Based Library and Information Practice* 4, no. 4 (December 2009): 88–94. <https://doi.org/10.18438/B8PW4F>.
- Polanka, Sue. “Purchasing E-Books in Libraries: A Maze of Opportunities and Challenges.” In “The No Shelf Required Guide to E-book Purchasing.” *Library Technology Reports* 47, no. 8 (November/December 2011): 4–7. <https://journals.ala.org/index.php/ltr/article/view/4425/5140>.
- Romaine, Siôn, and Jian Wang. “When ERM Met Alma: The Intricacies of Content Management in a Shared Consortia Landscape.” *Serials Review* 43, no. 1 (2017): 17–27. <https://doi.org/10.1080/00987913.2017.1279896>.
- Sapon-White, Richard. “Notes on Operations: E-Book Cataloging Workflows at Oregon State University.” *Library Resources & Technical Services* 58, no. 2 (April 2014): 127–136. <https://doi.org/10.5860/lrts.58n2.127>.
- Schmidt, Kari, and Christine Korytnyk Dulaney. “From Print to Online: Revamping Technical Services With Centralized and Distributed Workflow Models.” *Serials Librarian* 66, no. 1–4 (January–June 2014): 65–75. <https://doi.org/10.1080/0361526X.2014.879033>.
- Stamm, Andrea L. “The End of an Era Builds New Team Spirit: Team Playing at Its Best.” *Cataloging & Classification Quarterly* 30, no. 2/3 (January 2000): 357–72. https://doi.org/10.1300/J104v30n02_13.
- “Statistical Reports, CSU Fall Term Enrollment Summary, Fall 2016 Profile 2016–2017.” California State University, Institutional Research and Analysis. January 2017. http://www.calstate.edu/as/stat_reports/2016-2017/f_16toc.shtml.
- “Systemwide Digital Library Content.” California State University. <http://www.calstate.edu/library/content/statistics/>.
- “Transforming CSU Libraries for the 21st Century: A Strategic Plan of the CSU Council of Library Directors.” California State University.

- September 1994. http://www.calstate.edu/ITPA/Docs/html/lib_strat_plan.html.
- Van Kleeck, David, Gerald Landford, Jimmie Lundgren, Hikaru Nakano, Allison Jai O'Dell, and Trey Shelton. "Managing Bibliographic Data Quality in a Consortial Academic Library: A Case Study." *Cataloging & Classification Quarterly* 54, no. 7 (2016): 452–67. <https://doi.org/10.1080/01639374.2016.1210709>.
- Weston, Wil. "Revisiting the Tao of Resource Sharing." *The Serials Librarian* 69, no. 1 (2015): 47–56. <https://doi.org/10.1080/0361526X.2015.1021988>.
- Yesilbas, Amanda, and Becky Schwartzkopf. "Old is New Again: Using Established Workflows to Handle Electronic Resources." *The Serials Librarian* 52, no. 3/4 (June 2007): 277–80. https://doi.org/10.1300/J123v52n03_05.

PART 5: COLLABORATIONS BETWEEN ACQUISITIONS AND THE DIGITAL REPOSITORY

- "Alliance Digital Repository Policies Version 1.0." Colorado Alliance of Research Libraries. September 2007. Accessed September 11, 2017. http://www.coalliance.org/sites/default/files/ADR_Policies_1.0.pdf.
- Anderson, Rick. "Future-Proofing the Library: Strategies for Acquisitions, Cataloging, and Collection Development." *The Serials Librarian* 55, no. 4 (November 2008): 560–67. <https://doi.org/10.1080/03615260802399908>.
- Averkamp, Shawn, and Joanna Lee. "Repurposing ProQuest Metadata for Batch Ingesting ETDs Into an Institutional Repository." *Code4lib Journal* no. 7 (2009). Accessed July 6, 2017. <http://journal.code4lib.org/articles/1647>.
- Baker, Barry B., and Brian Quinn. "Collecting for Digital Repositories: New Ways to Disseminate and Share Information. A Report of the Program Presented by the ALCTS Collection Development and Electronic Resources Committee, American Library Association Annual Conference, Chicago, July 2009." *Technical Services Quarterly* 27, no. 3 (2010): 289–96. <https://doi.org/10.1080/07317131003766108>.
- Bishop, Patricia, Ruth Marshall, and Debra Winter. "A Robust Thesis

- and Dissertation Program at UCF." *Educause Center for Applied Research Research Bulletin* no. 3 (2007). Accessed August 22, 2017. <https://library.educause.edu/~media/files/library/2007/1/erbo703-pdf.pdf>.
- Bonilla-Calero, Anabel. "Institutional Repositories as Complementary Tools to Evaluate the Quantity and Quality of Research Outputs." *Library Review* 63, no. 1/2 (2014): 46–59. <https://doi.org/10.1108/LR-05-2013-0058>.
- Brown, Charlotte B., and Brian E. C. Schottlaender. "The Online Archive of California: A Consortial Approach to Encoded Archival Description." *Journal of Internet Cataloging* 4, no. 3/ 4 (2001): 97–112. https://doi.org/10.1300/J141v04n03_06.
- Brown, Josh. *Comparing Consortial Repositories: A Model-Driven Analysis*. London: University College London. Accessed August 15, 2017. <http://discovery.ucl.ac.uk/id/eprint/18977>.
- Burns, Sean C., Amy Lana, and John M. Budd. "Institutional Repositories: Exploration of Costs and Value." *D-Lib Magazine* 19, no. 1/2 (January/February 2013). Accessed Sept. 11, 2017, <https://doi.org/10.1045/january2013-burns>.
- Candela, Leonardo, Donatella Castelli, and Pasquale Pagano. "History, Evolution, and Impact of Digital Libraries." In *E-Publishing and Digital Libraries: Legal and Organizational Issues*, edited by Ioannis Iglezakis, Tatiana-Eleni Synodinou, and Sarantos Kapidakis, 1–30. Hershey, PA: IGI Global, 2011.
- Caplan, Priscilla. "The Florida Digital Archive and DAITSS: A Model for Digital Preservation." *Library Hi Tech* 28, no. 2 (2010): 224–34. <https://doi.org/10.1108/07378831011047631>.
- Colati, Jessica Branco and Gregory C. Colati. "A Place for Safekeeping: Ensuring Responsibility, Trust, and Goodness in the Alliance Digital Repository." *Library & Archival Security* 22, no. 2 (2009): 141–55. Accessed July 6, 2017. <https://doi.org/10.1080/01960070902904118>.
- "Communication and Information: Open Educational Resources." United Nations Educational, Scientific, and Cultural Organization. Accessed June 1, 2017. <https://en.unesco.org/themes/building-knowledge-societies/oer>.
- Copeland, Susan, and Andrew Penman. "The Development and Promotion of Electronic Theses and Dissertations (ETDs) within the UK." *New Review of Information Networking* 10, no. 1 (2004): 19–32.

- Crow, Raym. "The Case for Institutional Repositories: A SPARC Position Paper." *ARL Bimonthly Report* no. 223 (August 2002). Accessed September 11, 2017. <http://www.sparc.arl.org/resources/papers-guides/the-case-for-institutional-repositories>.
- Dean, Robin. "Shutting Down a Consortial Digital Repository Service." *Journal of Library Administration* 56, no. 1 (2016): 91–99. Accessed July 6, 2017. <https://doi.org/10.1080/01930826.2015.1113064>.
- Digital Library Perspectives* 30, no. 4 (2014): 232–48. Accessed July 6, 2017. <https://doi.org/10.1108/OCLC-02-2014-0008>.
- "Digital Repository Certification." OCLC Research. Accessed September 11, 2017. <http://www.oclc.org/research/activities/repositorycert.html>.
- Douglas, Steven, and Michelle Flinchbaugh. "Acquisitions and the Digital Repository." *Against the Grain* 23, no. 3 (June 2011): 61–62. Accessed July 20, 2017. <https://mdsoar.org/handle/11603/190>.
- "DRAMBORA: Digital Repository Audit Method Based on Risk Assessment." DRAMBORA Consortium. Last modified August 6, 2015. <http://www.repositoryaudit.eu/>.
- Early, Mary G., and Anne Marie Taber. "Evolving Collaboration: Electronic Thesis and Dissertation Workflows in North Carolina." *Collaborative Librarianship* 2, no. 1 (2010). Accessed July 6, 2017. <http://digitalcommons.du.edu/collaborativelibrarianship/vol2/iss1/3/>.
- Eastland, Karen, and Ana Neatrou. "Utah Digital Repository Initiative: Building a Support System for Institutional Repositories." *D-Lib Magazine* 13, No. 11/12 (November/December 2007). Accessed August 15, 2017. <http://www.dlib.org/dlib/november07/neatrou/11neatrou.html>.
- "ETD Guide." NDLTD. Accessed August 24, 2017. <http://etdguide.ndltd.org/>.
- "ETD-MS v. 1.1: An Interoperability Metadata Standard for Electronic Theses and Dissertations." NDLTD. Accessed August 22, 2017. <http://www.ndltd.org/standards/metadata>.
- Evans, G. Edward. "Management Issues of Co-Operative Ventures and Consortia in the USA. Part One." *Library Management* 23, no. 4/5 (2002): 213–26. Accessed July 6, 2017. <https://doi.org/10.1108/01435120210429943>.
- Evans, Gwen, and Theda Schwing. "OhioLINK—Recent Developments

- at a United States Academic Library Consortium." *Interlending & Document Supply* 44, no. 4 (2016): 172–77. Accessed July 11, 2017. <https://doi.org/10.1108/ILDS-06-2016-0021>.
- Flinchbaugh, Michelle. "Implementing MD-SOAR, A Shared Consortial Repository." *Against the Grain* 29, no. 2 (2017): 59–62. Accessed July 25, 2017. <https://mdsoar.org/handle/11603/4009>.
- Flinchbaugh, Michelle. "MD-SOAR, Maryland's Shared Open Access Repository: It's Been a Long, Long Haul." *Against the Grain* 23, no. 1 (2016): 70–71. Accessed July 25, 2017. <https://mdsoar.org/handle/11603/1609>.
- Fyffe, Richard, and William C. Welburn. "ETDs, Scholarly Communication, and Campus Collaboration: Opportunities for Librarians." *College & Research Library News* 69, no. 3 (March 2008): 152–55. Accessed August 22, 2017. <http://crln.acrl.org/index.php/crlnews/article/view/7952/7952>.
- Gaines, Annie M. "From Concerned to Cautiously Optimistic: Assessing Faculty Perceptions and Knowledge of Open Access in a Campus-Wide Study." *Journal of Librarianship & Scholarly Communication* 3, no. 1 (January 2015). <https://doi.org/10.7710/2162-3309.1212>.
- Galligan, Finbar, and Sharon Dyas-Correia. "Altmetrics: Rethinking the Way We Measure." *Serials Review* 39, no. 1 (March 2013): 56–61. <https://doi.org/10.1016/j.serrev.2013.01.003>.
- Giesecke, Joan. "Institutional Repositories: Keys to Success." *Journal of Library Administration* 51, no. 5–6 (July 2011): 529–42. <https://doi.org/10.1080/01930826.2011.589340>.
- Guo, Jin Xiu. "Building an Institutional Repository at a Liberal Arts College." *CALA Occasional Paper Series* no. 4 (June 2009): 2–10. https://www.cala-web.org/files/ops/OPS0004_200906_no.4.pdf.
- Hall, Susan, Lona Hoover, and Robert E. Wolverson Jr. "Administration of Electronic Theses/Dissertations Programs: A Survey of U. S. Institutions." *Technical Services Quarterly* 22, no. 3 (2005): 1–17. Accessed August 23, 2017. https://doi.org/10.1300/J124v22n03_01.
- Hall, Susan, Lona Hoover, and Robert E. Wolverson Jr. "Publishing Electronic Theses and Dissertations: Reconfiguring Library Services." *Technical Services Quarterly* 21, no. 2 (2003): 63–70. Accessed August 23, 2017. https://doi.org/10.1300/J124v21n02_05.
- Hanson, Eric M., Paul W. Lightcap, and Matthew R. Miguez. "Acquisitions

- Everywhere: Modeling an Acquisitions Data Standard to Connect a Distributed Environment.” *Proceedings of the Charleston Library Conference*. West Lafayette IN: Purdue University Press, 2015. <https://doi.org/10.5703/1288284316250>.
- Hoskins, Ruth Geraldine. “The Influence of Open Access on Journal Cancellations in University Libraries in South Africa.” *The Electronic Library* 31, no. 5 (January 1, 2013): 574–92. <https://doi.org/10.1108/EL-10-20110142>.
- Howard, Jennifer. “Scholars Seek Better Ways to Track Impact Online.” *The Chronicle of Higher Education* (January 29, 2012). www.lexisnexis.com/hottopics/lnacademic.
- Hulse, Bruce, Joan F. Cheverie, and Claire Dygert. “ALADIN Research Commons: A Consortial Institutional Repository.” *OCLC Systems & Service: International Digital Library Perspective* 23, no. 2 (2007): 158–69. <https://doi.org/10.1108/10650750710748469>.
- Jewell, Christine, William Oldfield, and Sharon Reeves. “University of Waterloo Electronic Theses: Issues and Partnerships.” *Library Hi Tech* 24, no. 2 (2006): 183–96. <https://doi.org/10.1108/07378830610669565>.
- Joki, Sverre Magnus Elvenes. “PEPIA: A Norwegian Collaborative Effort for Institutional Repositories.” *OCLC Systems and Services: International Digital Library Perspective* 23, no. 2 (2007): 204–9. <https://doi.org/10.1108/10650750710748504>.
- “Kibana.” Elasticsearch. <http://www.elastic.co/products/kibana>.
- Konkiel, Stacy, and Dave Scherer. “New Opportunities for Repositories in the Age of Altmetrics.” *Bulletin of the Association for Information Science & Technology* 39, no. 4 (April/May 2013): 22–26. <https://doi.org/10.1002/bult.2013.1720390408>.
- Kumar, H. Anil, and Mallikarjun Dora. “Citation Analysis of Doctoral Dissertations at IIMA: A Review of the Local Use of Journals.” *Library Collections, Acquisitions and Technical Services* 35, no. 1 (March 2011): 32–39. <https://doi.org/10.1016/j.lcats.2011.03.002>.
- Lewis, David W. “From Stacks to the Web: The Transformation of Academic Library Collecting.” *College & Research Libraries* 74, no. 2 (March 2013): 159–76. <https://crl.acrl.org/index.php/crl/article/view/16292/17738>.
- Lippincott, Joan K. “Institutional Strategies and Policies for Electronic

- Theses and Dissertations.” *Educause Center for Applied Research Research Bulletin* 2006, no. 13. Accessed May 10, 2019. <https://library.educause.edu/resources/2006/6/institutional-strategies-and-policies-for-electronic-theses-and-dissertations>.
- Littman, Justin. “A Set of Transfer-Related Services.” *D-Lib Magazine* 15, no. 1/2 (2009). Accessed July 20, 2017. <http://www.dlib.org/dlib/january09/littman/01littman.html>.
- Lubas, Rebecca L. “Defining Best Practices in Electronic Thesis and Dissertation Metadata.” *Journal of Library Metadata* 9, no. 3–4 (2009): 252–63. <https://doi.org/10.1080/19386380903405165>.
- Lynch, Clifford A. “Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age.” *Portal: Libraries and the Academy* 3, no. 2 (April 2003): 327–36.
- Lynch, Clifford A., and Joan K. Lippincott. “Institutional Repository Deployment in the United States as of Early 2005.” *D-Lib Magazine* 11, no. 9 (Sept. 2005). Accessed September 11, 2017. <http://www.dlib.org/dlib/september05/lynch/09lynch.html>.
- Maurer, Margaret Beecher, Sevim McCutcheon, and Theda Schwing. “Who’s Doing What? Findability and Author-Supplied ETD Metadata in the Library Catalog.” *Cataloging & Classification Quarterly* 49, no. 4 (2011): 277–310. <https://doi.org/10.1080/01639374.2011.573440>.
- McCutcheon, Sevim, Michael Kreyche, Margaret Beecher Maurer, and Joshua Nickerson. “Morphing Metadata: Maximizing Access to Electronic Theses and Dissertations.” *Library Hi Tech* 26, no. 1 (2008): 41–57. <https://doi.org/10.1108/07378830810857799>.
- Mircea, Gabriela. “OZone: A Shared Institutional Repository Service.” *New Review of Information Networking* 11, no. 2 (2005): 201–11. <https://doi.org/10.1080/13614570600573375>.
- Moreno, Heylicken. “Report of the ALCTS Technical Services Workflow Efficiency Interest Group Meeting.” Meeting at the American Library Association Midwinter Meeting. Boston, Massachusetts, January 2016. *Technical Services Quarterly* 33, no. 4 (2016): 432–36. Accessed July 6, 2017. <https://doi.org/10.1080/07317131.2016.1203648>.
- Morrow, Anne, and Allyson Mower. “University Scholarly Knowledge Inventory System: A Workflow System for Institutional Repositories.” *Cataloging & Classification Quarterly* 47, no. 3/4 (May 2009): 286–96. <https://doi.org/10.1080/01639370902737307>.
- Moyle, Martin, Rebecca Stockley, and Suzanne Tonkin. “SHERPA-LEAP: A Consortial Model for the Creation and Support of Academic

- Institutional Repositories.” *OCLC Systems & Services: International Digital Library Perspectives* 23, no. 2 (2007): 125–32. Accessed July 11, 2017. <https://doi.org/10.1108/10650750710748423>.
- Okret-Manville, Christine. “Academic Social Networks and Open Access: French Researchers at the Crossroads.” *LIBER Quarterly* 25, no. 3: 118–35. Accessed September 11, 2017. <http://doi.org/10.18352/lq.10131>. OpenStax. <https://openstax.org>.
- Open Textbook Library. Accessed July 16, 2017. <https://open.umn.edu/opentextbooks/>.
- Park, Eun G., Qing Zou, and David McKnight. “Electronic Thesis Initiatives: Pilot Project of McGill University, Montreal.” *Program: Electronic Library and Information Systems* 41, no. 1 (2007): 81–91. <https://doi.org/10.1108/00330330710724917>.
- Prasad, Neelam. “Synergizing the Collections of Libraries Archives and Museums for Better User Services.” *IFLA Journal* 37, no. 3 (October 2011): 204–10. Accessed September 11, 2017. <https://doi.org/10.1177/0340035211418730?journalCode=iflb>.
- Proudfoot, Rachel. “The White Rose Consortium ePrints Repository: Creating a Shared Institutional Repository for the Universities of Leeds, Sheffield and York.” *ALISS Quarterly* 1, no. 1 (2005): 19–23. Accessed July 11, 2017. <http://eprints.whiterose.ac.uk/archive/00000858/>.
- Proudman, Vanessa. “The Nereus International Subject-Based Repository: Meeting the Needs of Both Libraries and Economists.” *Library Hi Tech* 24, no. 4 (2006): 620–31. <https://doi.org/10.1108/07378830610715482>.
- Read, Kim Marsh. “Collective Voice for Collective Good: Library Consortia, Open Access, and the Future of Scholarly Communication.” *OLA Quarterly* 16, no. 3 (July 2014): 23–28. Accessed September 11, 2017. <https://doi.org/10.7710/1093-7374.1294>.
- Reih, Soo Young. “Perceptions and Experiences of Staff in the Planning and Implementation of Institutional Repositories.” *Library Trends* 57, no. 2 (2008): 168–90.
- Rossmann, Doralyn, and Kenning Arlitsch. “From Acquisitions to Access: The Changing Nature of Library Budgeting.” *Journal of Library Administration* 55, no. 5 (July 2015): 394–404. <https://doi.org/10.1080/01930826.2015.1047279>.
- Rumsey, Sally. “The Institutional Repository at LSE: Plotting Our Course.” *ALISS Quarterly* 1, no. 1 (October 2005): 14–19.
- Salem, Joseph A., Jr. “Open Pathways to Student Success: Academic

- Library Partnerships for Open Educational Resource and Affordable Course Content Creation and Adoption.” *Journal of Academic Librarianship* 43, no. 1 (January 2017): 34–38. <https://doi.org/10.1016/j.acalib.2016.10.003>.
- Schmidt, Karen. “Past Perfect, Future Tense: A Survey of Issues in Collection Development.” *Library Collections, Acquisitions and Technical Services* 28, no. 4 (2004): 360–72. <https://doi.org/10.1016/J.LCATS.2004.08.012>.
- Sterman, Leila. “Institutional Repositories: An Analysis of Trends and a Proposed Collaborative Future.” *College & Undergraduate Libraries* 21, no. 3–4 (2014): 360–76. <https://doi.org/10.1080/10691316.2014.943919>.
- Teaching Commons: Open Educational Resources From Leading Colleges and Universities. Accessed July 16, 2017. <http://teachingcommons.us/>.
- Tkaczyk, Dominika, Paweł Szostek, Mateusz Fedoryszak, Piotr Jan Dendek, and Łukasz Bolikowski. “CERMINE: Automatic Extraction of Structured Metadata From Scientific Literature.” *International Journal on Document Analysis and Recognition (IJDAR)* 18, no. 4 (December 1, 2015): 317–35. <https://doi.org/10.1007/s10032-015-0249-8>.
- Tuomi, Ilkka. “Open Educational Resources and the Transformation of Education.” *European Journal of Education* 48, no. 1 (March 2013): 58–78.
- Wang, Xiaocan (Lucy), Natalie Bulick, and Valentine Muyumba. “Publishing Student Scholarship: Exploring the ETD Initiative at a Medium-Sized Institution.” *OCLC Systems & Services: International Digital Library Perspective* 30, no. 4 (2014): 232–48. <https://doi.org/10.1108/OCLC-02-2014-0008>.
- Wei, Zhao, Shuzhen Zhao, and Katie-Scarlett MacGillivray. “Providing and Maintaining Access to Electronic Serials: Consortium and Member University Library’s Perspectives.” *The Serials Librarian* 72, no. 1–4 (2017): 144–51. <https://doi.org/10.1080/0361526X.2017.1309831>.
- Wesolek, Andrew. “Who Uses This Stuff, Anyway? An Investigation of Who Uses the DigitalCommons@USU.” *Serials Librarian* 64, no. 1–4 (January 2013): 299–306. <https://doi.org/10.1080/0361526X.2013.760298>.
- Yang, Zheng Ye (Lan), and Yu Li. “University Faculty Awareness and

- Attitudes Towards Open Access Publishing and the Institutional Repository: A Case Study." *Journal of Librarianship & Scholarly Communication* 3, no. 1 (January 2015): 1–29. <https://doi.org/10.7710/2162-3309.1210>.
- Yiotis, Kristin. "Electronic Theses and Dissertation (ETD) Repositories: What Are They? Where Do They Come From? How Do They Work?" *OCLC Systems & Services: International Digital Library Perspectives* 24, no. 2 (2008): 101–15. <https://doi.org/10.1108/10650750810875458>.
- Zhuravlyova, Iryna. "Institutional Repositories in the Libraries of the Institutions of Higher Education of the Kharkiv Methodical Association of Ukraine." In *Proceedings of the IATUUL Conference*. West Lafayette, IN: Purdue University Press, 2011. <https://docs.lib.purdue.edu/iatul/2011/papers/39/>.

PART 6: CONSORTIAL ACQUISITIONS

- "About CU Boulder." University of Colorado Boulder. Accessed July 12, 2017. <https://catalog.colorado.edu/about-cu-boulder/>.
- Anderson, Douglas. "Allocation of Costs for Electronic Products in Academic Library Consortia." *College & Research Libraries*, 67, no. 2 (2006): 123–35. <https://doi.org/10.5860/crl.67.2.123>.
- Anderson, Rick. "Collections 2021: The Future of the Library Collection Is Not a Collection," *Serials* 24, no. 3 (2011): 213. <https://serials.uksg.org/articles/10.1629/24211/>.
- "An Overview of PALCI." PALCI. Accessed August 15, 2017. <http://www.palci.org/overview/>.
- Archer, David, and Alex Cameron. *Collaborative Leadership: Building Relationships, Handling Conflict, and Sharing Control*. New York: Routledge, 2013.
- Arthur, Michael, Rebecca Donlan, Claire Dygert, and Roy Ziegler. "CSUL Collections Planning Committee: Janus Steering Committee Report on Task Force Outcomes and Proposed Activities." February 20, 2009.
- Atkinson, Ross. "Six Key Challenges for the Future of Collection Development: Introduction for the Janus Breakout Sessions." *Library Resources & Technical Services* 50, no. 4 (2006): 244–51.

- Bostick, Sharon L., and Robert E. Dugan. "The History and Development of Academic Library Consortia in the United States: An Overview." *Journal of Academic Librarianship* 27, no. 2 (2001): 128–30. [https://doi.org/10.1016/S0099-1333\(00\)00185-3](https://doi.org/10.1016/S0099-1333(00)00185-3).
- Dewey, Melvil. "Library Co-Operation." *Library Journal* 11 (1886): 5–6.
- "Electronic Journal Backfile Purchase." St. Andrews University Library Strategy Advisory Group meeting, Tuesday 11 December 2012. <https://www.st-andrews.ac.uk/media/library/documents/lsag-meeting-documentation/Paper%20D%20-%20%20Journal%20backfiles.pdf>.
- Fisher, Roger, and Alan Sharp. *Getting It Done: How to Lead When You Are Not in Charge*. New York: HarperCollins, 1998.
- "Glossary." California Digital Archive. Accessed on September 15, 2017. <http://www.cdlib.org/gateways/technology/glossary.html>.
- Goedeken, Edward A., and Karen Lawson. "The Past, Present, and Future of Demand-Driven Acquisitions in Academic Libraries." *College & Research Libraries* 76, no.2 (2015): 205–21. <https://doi.org/10.5860/crl.76.2.205>.
- Gumpenberger, Christian, Ambros Wernisch, and Juan Gorraiz. "Reality-Check: Cost-Related Journal Assessment From a Practical Point of View." *Journal of Scientometric Research* 1, no. 1 (2012): 35–43. <https://doi.org/10.5530/jscires.2012.1.8>.
- Hiremath, Uma. "Electronic Consortia: Resource Sharing in the Digital Age." *Collection Building* 20, no. 2 (June 11, 2001): 80–88. <https://doi.org/10.1108/01604950110388716>.
- "History of TRLN." TRLN. Accessed August 15, 2017. <http://www.trln.org/about/history-of-trln/>.
- Janus Conference on Research Library Collections. Presentations from the Janus Conference on Research Library Collections, Cornell University, Ithaca, New York, October 9–11, 2005. <https://ecommons.cornell.edu/handle/1813/3767>.
- "Journal Backfiles in Scientific Publishing: A Marketing White Paper." British Library. <http://www.bl.uk/reshelp/atyourdesk/docsupply/productsservices/digitisation/journalbackfileswhitepaper.pdf>.
- Jung, Youngim, Jayhoon Kim, Minho So, and Hwanmin Kim. "Statistical Relationships Between Journal Use and Research Output at Academic Institutions in South Korea." *Scientometrics* 103, no.3 (2015): 751–77. <https://doi.org/10.1007/s11192-015-1563-0>.
- Kinner, Laura, and Alice Crosetto. "Balancing Act for the Future: How the

- Academic Library Engages in Collection Development at the Local and Consortial Levels.” *Journal of Library Administration* 49, no. 4 (May 29, 2009): 419–37. <https://doi.org/10.1080/01930820902832561>.
- Kopp, James J. “Library Consortia and Information Technology: The Past, the Present, the Promise.” *Information Technology and Libraries* 17, no. 1 (1998): 7–13. <http://search.proquest.com.authenticate.library.duq.edu/docview/215831831/fulltextPDF/ECDE2ADDO82548B9PQ/1?accountid=10610>.
- Larivière, Vincent, Éric Archambault, and Yves Gingras. “Long-Term Variations in the Aging of Scientific Literature: From Exponential Growth to Steady-State Science (1900–2004).” *Journal of the American Society for Information Science and Technology* 59, no. 2 (2008): 288–96.
- Mitchell, Ann. “Data Driven Acquisition in Libraries.” Filmed at ALA Annual Conference in San Francisco, June 2015. <https://youtu.be/8PZEmHLjFGg>.
- “NASIG Core Competencies for Electronic Resources Librarians.” NASIG Core Competencies Task Force. Last modified January 26, 2016. https://www.nasig.org/site_page.cfm?pk_association_webpage_menu=310&pk_association_webpage=7802.
- Pan, Denise, and Yem Fong. “Return on Investment for Collaborative Collection Development: A CostBenefit Evaluation of Consortia Purchasing.” *Collaborative Librarianship* 2, no. 4 (2010): 183–92. <https://digitalcommons.du.edu/collaborativelibrarianship/vol2/iss4/3/>.
- Pennell, Charles, Natalie Sommerville, and Derek A. Rodriguez. “Shared Resources, Shared Records: Letting Go of Local Metadata Hosting Within a Consortium Environment.” *Library Resources & Technical Services* 57, no. 4 (2013): 227–38. <https://journals.ala.org/index.php/lrts/article/view/5586/6886>.
- Poynder, Richard. “The Big Deal: Not Price but Cost.” *Information Today* 28, no. 8 (2011). <http://www.infotoday.com/it/sep11/The-Big-Deal-Not-Price-But-Cost.shtml>.
- “Revised Minutes, Thursday December 5, 2002.” State University Library Council. <http://csul.net/sites/csul.fcla.edu/uploads/csul-12-05-02.pdf>.
- Schmidt, Jane. “Demand-Driven Acquisitions: The Hegemony of the Canon Interrupted.” Paper presented at ACRL 2015, Portland, Oregon, March 25–28, 2015.
- Sens, Jean-Mark, and Anthony J. Fonseca. “A Skeptic’s View of Patron-

- Driven Acquisitions: Is It Time to Ask the Tough Questions?" *Technical Services Quarterly* 30 no. 4 (2013): 359–71. <https://doi.org/10.1080/07317131.2013.818499>.
- Tamm, James W., and Ronald J. Luyet. *Radical Collaboration: Five Essential Skills to Overcome Defensiveness and Build Successful Relationships*. New York: HarperCollins, 2005.
- Tenopir, Carol, and Donald W. King. "Reading Behaviour and Electronic Journals." *Learned Publishing* 15, no. 4 (2002): 259–65. <https://doi.org/10.1087/095315102760319215>.
- Turner, Christine N. "E-Resource Acquisitions in Academic Library Consortia." *Library Resources & Technical Services* 58, no. 1 (2014): 33–48. <https://doi.org/10.5860/lrts.58n1.33>.
- "UCCS Fast Facts." University of Colorado Colorado Springs. Accessed July 12, 2017. <http://www.uccs.edu/Documents/advancement/UCCS-Fast-Facts-10-2016.pdf>.
- "University of Colorado Denver Anschutz Medical Campus Facts 2017–18." University of Colorado Denver, Anschutz Medical Campus. Accessed July 12, 2017. http://www.ucdenver.edu/about/WhoWeAre/Documents/CUDenverAnschutz_facts.pdf.
- Verstak, Alex, Anurag Acharya, Helder Suzuki, Sean Henderson, Mikhail Iakhiaev, Cliff Chiung Yu Lin, and Namit Shetty. "On the Shoulders of Giants: The Growing Impact of Older Articles." *Arxiv* 2014. November 4, 2014. <https://arxiv.org/abs/1411.0275>.
- Wagner, Ralph D. "Walter Lichtenstein in South America: Books, Voyages, and the End of a Career." *Libraries & Culture* 23, no. 3 (1988): 295–331. <http://www.jstor.org/stable/25542070>.
- Walters, William H. "Patron-Driven Acquisition and the Educational Mission of the Academic Library." *Library Resources & Technical Services* 56, no. 3 (2012): 199–213. <https://doi.org/10.5860/lrts.56n3.199>.
- Ward, Suzanne M. "Patrons: Your New Partners in Collection Development." *American Libraries* 45, no. 3/4 (March/April 2014): 13. <https://americanlibrariesmagazine.org/2014/04/30/patrons-your-new-partners-in-collection-development/>.
- Weber, David C. "A Century of Cooperative Programs Among Academic Libraries." *College & Research Libraries* 37, no. 3 (May 1976): 205–21. <http://crl.acrl.org/index.php/crl/article/view/12844/14290>.

- Wiley. "The Value in Older Research: Usage of Wiley Backfiles 2014–2015." White paper. October 2015.
- Zare-Farashbandi, Firoozeh, and Parastoo P. Mohammadi. "A Study on Literature Obsolescence and Core Journals' Cost-Benefit in Citations of the 'Scientific Medical Journal of Ahwaz.'" *Journal of Education and Health Promotion* 3, no. 93 (2014). <https://www.ncbi.nlm.nih.gov/pubmed/25250359>.
- Ziegler, Roy. "Janus in the Sunshine." *Florida Libraries* 51, no. 2 (Fall 2008): 10. <http://journals.fcla.edu/flalib/article/view/84563/81599>.

Contributors

Lynda L. Aldana is the associate director for Technical Services at the University of Maryland, Baltimore County (UMBC). Prior to UMBC, she was the cataloging projects coordinator at the Milton S. Eisenhower Library, Johns Hopkins University. She has an MS in library science from the University of North Texas and a BM in music performance from The University of Southern Mississippi.

Alison M. Armstrong is the collection management librarian at Radford University in Virginia. She has a BA in literature from the University of North Carolina at Asheville and an MLIS from the University of North Texas. She is active with ALCTS as well as the Virtual Library of Virginia (VIVA.)

Tracie Ballock is the assistant university librarian for Collections and Metadata Services at Duquesne University's Gumberg Library. She provides leadership and strategic vision for developing, evaluating, and assessing library collections in all formats and is responsible for overall management of the library's Collections and Metadata Services Unit, which consists of the Acquisitions and Cataloging departments, Access and Discovery, Processing, and Gifts.

Sever Bordeianu has an MLIS from the University of Texas at Austin and an MA in philosophy and German literature from the University

of Mississippi. He has worked in reference and cataloging at the University of Michigan (1985–1987), University of California Irvine (1987–1989), and University of New Mexico (1989–present). At UNM he is currently director of Technical Services and outreach librarian for philosophy/religion, foreign languages, and English.

Sommer Browning is the associate director of Technical Services and assistant professor at Auraria Library in downtown Denver. Auraria Library is the library for three distinct institutions of higher education: the University of Colorado Denver, Metropolitan State University of Denver, and Community College of Denver. Sommer's research focuses on access to library materials and creativity in librarianship. She is also a poet and writer and runs an art gallery out of her garage in Denver. She holds an MSLIS from Long Island University and an MFA in poetry from the University of Arizona.

Honam Choi is a research fellow at Korea Institute of Science and Technology Information (KISTI) and an associate editor of the *Journal of Information Theory and Practice (JISTaP)*, an Open Access journal published by KISTI. He is also an adjunct professor at Chungnam National University and a member of the OCLC Asia Pacific Regional Council Executive Committee and the Asia Pacific Library Advisory Board for a few well-known publishers.

Jennifer R. Culley has a BS in public administration from James Madison University in Virginia and an MLIS from the University of Alabama. She is the collection management and acquisitions librarian and a tenured associate professor at The University of Southern Mississippi.

Leigh Ann DePope is the head of Acquisitions and Data Services at the University of Maryland, College Park, where she coordinates the ordering and invoicing for all collection material and handles license negotiation for electronic resources. She has co-authored peer-reviewed journal articles published in *Serials Review* and the *Serials Librarian*. Leigh Ann's scholarship focuses on data collection and using data for collection decision-making and resource performance assessment.

Rebecca Donlan is associate director for Collection Management at Florida Gulf Coast University, where she has worked since May 2000. A graduate of the University of Iowa School of Library and Information Science, Rebecca has worked in public and academic libraries since 1990, serving in reference, cataloging, serials, and children's departments. She has served as editor-in-chief of *Library Collections, Acquisitions, and Technical Services* and of the *Journal of Interlibrary Loan, Document Delivery and Electronic Reserve* and was a columnist for the *Reference Librarian*.

C. Steven Douglas, MA, MLS, AHIP, is the head of Collection Strategies and Management at the University of Maryland, Baltimore, Health Sciences and Human Services Library. In this position he oversees the work of selecting, acquiring, and providing access to the library's information resources.

Claire Dygert owns CDygert Solutions, a results-driven consulting company that provides services to all types of libraries and library consortia. Her areas of expertise include e-resource acquisition and management, statewide contract negotiation for online content, digital services, strategic planning, and organizational change. Prior to launching CDygert Solutions, Claire served as director for E-Resources and Digital Services at the Florida Academic Library Services Cooperative (FALSC), an organization that provides services to the libraries of the 40 public institutions of higher education in Florida.

Sue Fahey is the head of Serials & Acquisitions at the Queen Elizabeth II Library, Memorial University of Newfoundland, St. John's, Newfoundland and Labrador. She has worked at Memorial University Libraries since 2000, holding a variety of positions including public services librarian, health sciences library and information services librarian, QEII Library. In her current role Sue coordinates all aspects of acquisitions and electronic resource management for Memorial University Libraries.

Michelle Flinchbaugh is the acquisitions librarian at the University of Maryland, Baltimore County (UMBC). She edits for *Against the Grain*

and teaches the Association for Library Collections and Technical Services Fundamentals of Acquisitions course.

Darren J. Furey is the head of Cataloguing & Metadata at Memorial University Libraries in St. John's, Newfoundland and Labrador. Before arriving at Memorial in 2012, Darren spent more than five years as a technical services librarian at the Gerard V. La Forest Law Library at the University of New Brunswick. He holds an Honours BA from Memorial University, an MA from the University of New Brunswick, and an MIST from the University of Toronto.

Denise A. Garofalo is the librarian for Systems and Catalog Services at Mount Saint Mary College, Newburgh, New York. She has worked in the areas of technical services and library information systems in the northeastern United States for academic, public, school, special, and consortial libraries. Denise presents on those topics at library conferences, workshops, and webinars, as well as writes about them for journals and books.

Rhonda Glazier is director of Collections Management at the University of Colorado, Colorado Springs, and has worked in libraries for over 25 years. Her areas of interest include the changing landscape of collections in academic libraries, the impact of electronic resources on academic collections, workflow analysis, and the changing role of the technical services librarian.

George Gottschalk is the current director of Acquisitions for the University of Illinois, Urbana–Champaign. He began in this role as of January 1, 2019, as lead author of the same chapter, Lynn Wiley, began a well-deserved retirement. His professional service includes serving on various ALCTS groups within ALA. George has served as newsletter editor for the American Indian Library Association, and at ALA Annual in Washington, D.C., in 2020 he will assume his role as president of the American Indian Library Association.

Amy Lee Heinlen is the assistant university librarian for Access Services at Duquesne University's Gumberg Library. She holds an MLSI from

the University of Pittsburgh and an MFA in creative writing from Chatham University. Amy Lee's passion for librarianship and poetry happily come together in her approach to research as a creative act of discovery that cultivates authentic curiosity, an appreciation of specific language and systems, and belief in serendipity.

Lisa Kallman Hopkins is an assistant librarian at Texas A&M University-Central Texas in Killeen near Fort Hood. She is the head of Technical Services and assistant director of University Library and serves as the university copyright specialist and one of the university copyeditors.

Daniel Huang is the acquisitions librarian at the Lehigh Libraries and the author of the article "Flipped Interlibrary Loan (F.I.L.L.): Putting Interlibrary Loan in the Driver's Seat of Acquisitions." His research focuses on new library workflows and collaboration and the utilization of offsite print on demand to reduce library expenditures.

Chris R. Johnson is the special formats and media cataloger at the University of New Mexico Libraries.

Elizabeth S. Johnson has worked in library public services since the beginning of her career. Always on a mission to find better ways to meet customer needs, she believes that collaboration is often the key to achievement. Elizabeth is currently the head of Access Services and Student Engagement at McConnell Library at Radford University in Virginia.

Youngim Jung holds a PhD from Pusan National University in computer science and engineering. Previously she worked for KESLI (Korean Electronic Site License Initiative), the national library consortium in South Korea for nine years. She is now a senior researcher at Korea Institute of Science and Technology Information, developing and managing scholarly publishing systems for supporting learned societies. She is a committee member of KCSE (Korean Council of Science Editors) and CASE (Council of Asian Science Editors) and is an associate editor/Korean ambassador of DOAJ (Directory of Open Access Journals).

Hwanmin Kim is a PhD candidate in library and information science at Sungkyunkwan University in South Korea. He is a principal researcher at Korea Institute of Science and Technology Information and has worked as managing director of KESLI (Korean Electronic Site License Initiative) since 2017. His current research interests are management of library consortia, Open Access deals, and consortial acquisition.

Moon Kim is the acquisitions librarian at Ohio State University Libraries and formerly the acquisitions librarian at California State University, Fullerton, where she oversaw acquisitions of all types of materials in various languages and formats.

Laura Kohl is the principal cataloger and an assistant professor in the College of University Libraries and Learning Sciences at the University of New Mexico in Albuquerque. She received her BA in history from the University of New Mexico and her MLIS from the University of Pittsburgh, where she specialized in archival science. She is the author of several articles and chapters on topics ranging from cataloging to workflow within libraries. Prior to working at UNM, Laura was a cataloger and archivist for the New Mexico History Museum in Santa Fe. Her experience includes the cataloging of special collection material, PCC and NACO cataloging, archival processing and encoding, collection management, and library and archival preservation.

Stacey Marien is the head of Acquisitions at American University Library in Washington, D.C. She received her MSLS from the University of North Carolina at Chapel Hill. She started her career as the business librarian at Elon College (now University) and was the business librarian at American University for 10 years. Stacey transitioned to Technical Services and has been the acquisitions librarian at AU for over 10 years. She has written many book reviews, articles, and book chapters and has been published in several journals, including *Against the Grain*, *Choice*, *Reference and Users Services Quarterly*, and the *Bottom Line*. She also co-writes a column with her colleague Alayne Mundt called Let's Get Technical for *Against the Grain*.

Christina Mayberry is the science and engineering librarian at the Oviatt Library at California State University, Northridge. She received her MLIS from the University of California, Los Angeles, and her BS in chemistry from Harvey Mudd College. Christina was previously the collection development coordinator at Oviatt Library. She has also worked at two academic medical libraries and a hospital library. Current areas of interest include sustainability and women in science and engineering.

Maurine McCourry has been a technical services librarian at Hillsdale College since 2000 and is the incoming head librarian. Her current responsibilities at Hillsdale include the acquisition and cataloging of all monographic material, and she serves as the systems librarian. Prior to moving to Hillsdale, Maurine was a music cataloger at Oberlin College. She holds an MILS from the University of Michigan and a PhD in library and information science from Dominican University.

Vivian B. Milczarski, MLS, MBA, is the associate librarian for Collection Development at Mount Saint Mary College, where she has worked for more than 18 years. During her career she has worked in the areas of reference, programming, and collection development in public, academic, and special libraries. Vivian is particularly interested in adolescent literature and developing innovative ways to teach information literacy, and she has presented on these topics numerous times in both the United States and Canada.

Marsha Miles is head of Collections and Digital Initiatives at Cleveland State University. She holds an MLIS degree from Kent State University. Marsha oversees the Collections and Resource Management unit of the Michael Schwartz Library, which includes acquisitions, cataloging, collection management, digital initiatives, donations, electronic resources, government documents, knowledge bases, serials, systems and the Department of Special Collections. Her research interests include digital libraries, metadata, and scholarly communication.

Pamela S. Morgan has been at the Health Sciences Library, Memorial University of Newfoundland, since 1990, holding a variety of positions

including assistant head of Technical Services, systems librarian, and public services librarian. She is currently the division head, Information Resources and Archives, overseeing all aspects of acquisitions, collections, electronic resources, digitization, and archives. Her research interests center around the selection and usage of library resources.

Robin Barnard Moskal recently retired as associate director for Public Services at the University of Maryland, Baltimore County (UMBC). Her duties included supervision of Reference, Special Collections, Collection Management, Interlibrary Loan, and Accounting and Receiving. Prior to this position she served as head of Access Services at Gettysburg College, head of Collection Management, ILL, and Accounting and Receiving at UMBC and as a reference librarian and assistant head of Access Services at Virginia Tech. She is active in ALA, RUSA, and STARS.

Alayne Mundt has served as the head of Cataloging and Metadata at American University in Washington, D.C., since 2010. She received her MSLIS from Simmons College in Boston. Previously she served as associate editor, Library of Congress, for ProQuest. She also co-writes a regular column with her colleague Stacey Marien called Let's Get Technical for the publication *Against the Grain*.

L. Angie Ohler has been with the University of Maryland Libraries since 2007, beginning as the head of Acquisitions and later becoming the director of Collection Services. Prior to that, she was the serial and electronic resources acquisition librarian at the University of Oklahoma Libraries. She earned her MLS at Catholic University in Washington, D.C., and holds an MA in anthropology from American University. Angie sits on the editorial board for the journal *Library Resources and Technical Services (LRTS)* and is the vice chair/chair-elect of the ALCTS Acquisitions Section. Her scholarship includes peer-reviewed articles, book chapters, and national conference presentations focusing on e-resource management, library services platforms and discovery systems, collection development, organizational change, and change management.

Kirsten Ostergaard was formerly the acquisitions librarian at Duquesne University's Gumberg Library. Her recent research includes presentations and publications in library/vendor relations, accessibility, and electronic resource use and optimization.

Erica A. Owusu is currently the acquisitions and licensing coordinator for the University System of Maryland and Affiliated Institutions (USMAI) Library Consortium. Previously she worked in the electronic resource sales department for five years at a major library consortium based in Texas.

Bria Parker is the head of Discovery and Metadata Services at University of Maryland Libraries, where she began as the metadata librarian in July 2014. Prior to coming to the University of Maryland she was the metadata and digital collections librarian at NASA Goddard Library, where she helped launch the Goddard Library Repository. She received her MSI from the University of Michigan in 2009 and previously received a bachelor's and master's of music in clarinet performance.

Scott Piepenburg is currently the cataloging services manager at Brodart Library Services and was most recently head of cataloging at Our Lady of the Lake University in San Antonio, Texas. His prior experience includes the position of head of cataloging at Valdosta State University in Valdosta, Georgia, and cataloging coordinator at the University of Wisconsin–Stevens Point, as well as district cataloger/system administrator for the Dallas Independent School District, where he was instrumental in bringing up the initial DALLINK project, the first large urban school union catalog in the United States. He has also held positions at Hampton University and Vincennes University, as well as at EBSCO, Infotrieve, and Follett, where he was one of the developers of the original Alliance Plus and the Unison software platform, which served as the basis for Follett Destiny.

Nathan B. Putnam is the director of metadata quality at OCLC and oversees the teams of specialists working on data quality for the WorldCat bibliographic database, knowledge base, and central index. He has

more than 15 years of cataloging experience working in multiple academic libraries as cataloger and manager. Prior to working at OCLC, he was the head of Metadata Services at the University of Maryland, College Park, working with catalogers and metadata specialists on implementing new cataloging workflows.

Mary C. Radnor is the acquisitions and metadata librarian at Fort Hays State University, where she oversees acquisitions, cataloging, government documents processing, collection development, and library budget management. She received her MLS from Emporia State University in 2009 and started her professional career as the resource sharing librarian at Florida International University in Miami, supervising the interlibrary loan operations at two campus libraries. She then took a position as document delivery services librarian at the University of Chicago Library, where she supervised a large operation of library course reserves and interlibrary loan. In 2016 she accepted the library specialist for collections and resource development position at Fort Hays State University, then a little over a year later was promoted to her current position.

Jennifer Rogers has been a librarian for 12 years, working in both public and technical services. Over the past several years she has become a fierce advocate for open education, and she currently works as the outreach coordinator for LibreTexts, the largest collection of open educational resources (OER) online. She holds an MLIS from San Jose State University and an MA in English from San Diego State University. Her past research interests included the intersections of death and dying and identity in literature and television.

Tyler Rogers has worked in the San Diego State University Library since 2007 and has enjoyed every minute of it. He is grateful to have had the opportunity to work with a terrific group of writers from the California State University libraries.

LeAnne Rumler received her MLIS from Wayne State University in 2013. She has worked in both public and academic libraries and for the past five years has held the position of technical services librarian at Mossey Library, Hillsdale College, where she is currently responsible

for all electronic resources as well as serials. LeAnne is an active member of MiALA, the Michigan Academic Library Association, and has presented at the annual conference. She has also contributed to several proceedings from the Charleston Conference.

Vicki Sipe is the head of Bibliographic and Metadata Services at the University of Maryland, Baltimore County (UMBC). She is the author of ALA's ALCTS Fundamentals of Cataloging web course and works as a trainer and presenter on provision of metadata for images. She served as the president of the Association for Library Collections and Technical Services 2016–2017.

Rob Tench is the head of Resource Fulfillment at Old Dominion University. He is active with the Virginia Library Association and the Virtual Library of Virginia Consortium. He reviews databases and reference books for *Library Journal*.

Chuck Thomas is the executive director of the University System of Maryland and Affiliated Institutions (USMAI) Library Consortium. He has worked more than 20 years building digital library programs in academic libraries and for 5 years at the U.S. Institute of Museum and Library Services. Chuck has published and presented extensively on the topics of digital libraries, evaluating library-based digital services and programs, and innovations in libraries and archives.

Hilary H. Thompson is the director of User Services and Resource Sharing at the University of Maryland Libraries, where she supervised interlibrary loan (ILL) from 2012 to 2019 and course reserves from 2015 to 2019. She served as the 2017–2018 chair of the Big Ten Academic Alliance ILL Directors and is serving as the 2018–2020 chair of the RUSA STARS International ILL Committee. She has presented and published on topics such as cross-departmental collaboration and improving access to global information resources.

Wendolyn Vermeer is the collection services coordinator and librarian liaison to Business Administration at California State University, Dominguez Hills. She believes passionately in the transformative power of accessible higher education and has dedicated her

professional career to furthering the academic mission of the California State University.

Sharon Wiles-Young is the director of library access services for the Lehigh Libraries. Her driving force is to tell library patrons' stories to the Libraries and beyond and develop new innovative service models. She also serves on the EBSCO and Mellon-funded FOLIO Product Council.

Lynn Wiley has a BA in anthropology and an MSLS from the School of Library Science at the University of North Carolina at Chapel Hill and is currently completing an MSW at the University of Illinois at Urbana–Champaign. She just retired from her last library position as the head of Acquisitions and University Libraries associate professor at the University of Illinois at Urbana–Champaign. She has been a librarian for 40 years and worked in academic libraries since 1981 in a public service role until shifting to technical services in 2006. Lynn was active in local, regional, and national associations and spoke at conferences worldwide, including IFLA. She has published extensively about access services, and in particular the results of analyses of statewide systems and collections. Getting patrons what they need seamlessly has been her primary professional goal.

Delphia Williams received two undergraduate degrees from California State University, Northridge, the first in liberal studies and the second in sociology. She received her MLIS from San Jose State University and has spent 30-plus years working in CSU Northridge's Oviatt Library in the Collections Access and Management Services Department. Del became a tenure-track librarian in 2014. Currently, she is the acquisitions coordinator and social work program liaison.

Richard Wisneski is an interim associate university librarian at the University at Buffalo, overseeing technical services and collection management. He previously worked at Cleveland State University, the University of Akron, and Case Western Reserve University. Richard holds an MLIS from Kent State University and a PhD in English from Michigan State University.

Index

Page numbers in italics refer to tables and figures

A

- Abel, Richard, 369
- Acquisitions and collection
- management, 1–3
 - cataloging staff and (*see* Cataloging staff and collection development)
 - collaboration between digital repository and, 253–54
 - collaborative forecasting pilot programs for (*see* University of Illinois at Urbana–Champaign [U of I] Library)
 - consortial (*see* Consortial acquisitions)
 - course reserves and (*see* University of Maryland [UMD] Libraries)
 - data-driven backfile (*see* Data-driven backfile acquisition)
 - e-books, 16–19, 17
 - electronic resources and (*see* Electronic resources)
 - electronic theses and dissertations management and, 255–66
 - evidence-based purchasing, 19–24, 21, 23
 - funding and budgets in (*see* Funding and budgets)
 - interlibrary loan and (*see* Interlibrary loan [ILL])
 - prior to the information age, 86–87
 - stakeholders in, 42–43
- ALA Bulletin*, 310
- ALCTS (Association for Library Collections and Technical Services), 277
- Alma (Ex Libris) system, 70, 94–95, 105, 227–29, 248
- Amazon, 124
- Ambrose Video, 319–20
- American University Library
- American University Digital Research Archive (AUDRA), 65–66
 - conclusions on collaboration, 70
 - e-book cataloging at, 67–68
 - history of collaboration at, 62–66
 - introduction to collaboration at, 61–62

American University Library (*cont.*)
 move-to-storage projects at,
 66–67
 reporting and batch processing,
 69
 WRLC (Washington Research
 Library Consortium) retention
 project, 68–69

Anderson, Rick, 292

Archer, David, 331–32, 339–40

Archives, print and microfilm,
 314–15

Arlitsch, Kenning, 292

Armstrong, Kim, 225

Association for Library Collections
 and Technical Services
 (ALCTS), 80

Association of College and Research
 Libraries (ACRL), 244, 276

Association of Research Libraries
 (ARL), 5, 73

Atkinson, Ross, 325, 327, 333, 337,
 339

AV Market Place, 86

B

Backfiles, journal. *See* Data-driven
 backfile acquisition

Baker, Stephanie, 9

Batch processing and reporting, 69

Beals, Nancy, 221–22

Big Ten Academic Alliance (BTAA),
 101–2

*Biological Journal of the Linnean
 Society*, 367–68

Bishop, Patricia, 260

Bonilla-Calero, Anabel, 291

Books in Print, 86

Bracke, Paul, 223

Breeding, Marshall, 88, 95–96, 222

Bulick, Natalie, 260

Burris, Christian, 224

C

California State University,
 Northridge (CSUN), Oviatt
 Library, 39–40
 collaboration to improve
 workflows at, 44–45
 funding at, 40–42
 stakeholders and purchasing at,
 42–43

California State University (CSU)
 libraries, 43
 communication channels
 between, 245–46
 concluding thoughts on shared
 platform, 249–50
 introduction to, 237–38
 migrating legacy acquisitions
 data across, 246–49
 shared electronic resource
 acquisitions and management
 at, 241–45, 242
 shared platforms among, 246

Southern California Electronic
 Library Consortium (SCELC)
 and, 239

systemwide digital library
 content/systemwide digital
 library services, 238–39

Unified Library Management
 System (ULMS) project,
 239–40, 241

*California State University Library
 Annual Statistic Report*, 247

- Cambridge University Press, 326
- Cameron, Alex, 331–32, 339–40
- CARLI (Consortium of Academic and Research Libraries in Illinois), 9
- funded PDA for state, 14–16, 15
- I-Share pilot, 10–14, 11
- request for proposal (RFP) process, 9–10
- Cataloging, e-books
- at American University Library, 67–68
- at University of Illinois, 19
- Cataloging and acquisitions collaboration. *See* University of Maryland (UMD) Libraries
- Cataloging-on-receipt (CoR) pilot project, UCLA, 57
- Cataloging staff and collection development, 47–48
- concept testing and, 50
- implementation and, 51–52
- results of, 52–53
- selection criteria for, 48–49
- See also* Acquisitions and collection management
- Chisman, Janet, 225
- Chrzastowski, Tina E., 9
- Cleveland State University (CSU)
- institutional repository access points for faculty publications, theses, and dissertations, 294–95
- books, 296–97
- connectivity to acquisitions, 303
- faculty expertise and, 297, 297
- further analytics on, 298–301, 299–301
- open educational resources in, 301–3
- subject headings and keywords in, 295–96, 296
- Coalition for Networked Information, 258, 259
- Code4lib Journal*, 260
- Collaboration between acquisitions and collection management, 1–3
- at American University Library (*see* American University Library)
- cataloging staff and (*see* Cataloging staff and collection development)
- collaborative forecasting pilot programs (*see* University of Illinois at Urbana–Champaign [U of I] Library)
- for electronic resources (*see* Electronic resources)
- funding and budget issues in (*see* Funding and budgets)
- integrated library system (ILS) for, 24, 55–59 (*see also* University of New Mexico [UNM] Libraries)
- and interlibrary loan, 129–35 (*see also* University of Maryland [UMD] Libraries)
- mergers for, 30–35
- move-to-storage projects, 66–67
- technology changes and, 95–97
- at University of Maryland (UMD) Libraries (*see* University of Maryland [UMD] Libraries)
- workflows improved by, 44–45

- Collaborative Leadership*, 331
- College & Research Libraries News*, 259
- Collins, Maria, 223
- Concept testing, 50
- Consolidation in the information industry, 87–89
- Consortial acquisitions, 307–8
- Florida State University System, 325–40
- Pennsylvania Academic Library Consortium (PALCI), 309–23
- University of Colorado (CU) system, 343–61
- Consortial and campus institutional repository. *See* University of Maryland, Baltimore County (UMBC)
- CONTENTdm, 257–58, 263–65
- CONTU (Commission on New Technological Uses of Copyrighted Works) guidelines, 131
- Cook Library. *See* University of Southern Mississippi Cook Library
- Cooperative purchasing of e-resources, 312–13
- Copeland, Susan, 259
- Cornell University, 258, 325, 327
- Council of Graduate Schools, 258
- Council of State University Library (CSUL), 325
- Course reserves and acquisitions collaboration. *See* University of Maryland (UMD) Libraries
- Coutts (company), 65, 88, 94
- Cromity, Jamal, 223–24
- Cross-training, ILS, 77–79
- CU Libraries Access and Discovery (CLAD), 343–44
- benefits of, 353–55
- establishment of, 350–53
- future of, 357–60
- informal working process of, 353
- overcoming challenges of informal consortium and, 355–57
- CU Libraries Electronic Resources Team (CLERT), 343–44
- establishment of, 344–48
- future of, 357–60
- overcoming challenges of informal consortium and, 355–57
- D**
- Data-driven backfile acquisition, 363–64
- conclusions on, 382–83
- data and methodology, 371–78, 372, 374–79
- introduction to, 364–67, 365–66
- related work on, 367–70
- Demand-driven acquisition (DDA), 19–22, 90–91, 140, 142, 150, 168, 309, 369
- cost of borrowing versus purchase and, 144–49
- Pennsylvania Academic Library Consortium (PALCI), 316–21, 318
- Dewey, Melvin, 310
- Digital Commons, 298–301, 299–301
- Digital repositories, 253–54

- consortial and campus
 - institutional (*see* University of Maryland, Baltimore County [UMBC])
- electronic theses and
 - dissertations (*see* Electronic theses and dissertations [ETDs] management)
- See also* Electronic resources; Institutional repositories
- Digital rights management (DRM), 17–18
- evidence-based purchasing and, 19–24, 21, 23
- Doherty, Brian, 105
- Dora, Mallikarjun, 292
- Douglas, Steven, 292
- Duquesne University, 311, 317–18, 320, 321
- Dyas-Correia, Sharon, 293
- E**
- Early, Mary G., 260
- E-books
 - acquisitions, U of I, 16–19, 17
 - cataloging, American University Library, 67–68
 - ILL at Lehigh University Libraries and, 169–71
 - planning and implementation
 - at Mount Saint Mary College, 212–13
 - vetted and purchased for
 - electronic course reserves, 185–89, 189
 - See also* Electronic resources
- EBSCO, 88, 90, 206, 213, 216, 317–19
- Educause Center for Applied Research, 259, 260
- Electronic data interchange (EDI), 94, 108, 186, 270
- Electronic resources, 197–98
 - acquisitions at Hillsdale College, 199–207
 - acquisitions integration with other systems at Mount Saint Mary College, 209–11, 210
 - at California State University (CSU) libraries (*see* California State University [CSU] libraries)
 - collaboration across divisions at Memorial University Libraries (MUL), 219–32
 - cooperative purchasing of, 312–13
 - shared acquisition and management of, 241–45, 242
 - streaming content planning and implementation procedures, 211–12
- University of Maryland, Baltimore, Health Sciences and Human Services Library, 269–73
- See also* Digital repositories; E-books
- Electronic theses and dissertations (ETDs) management. *See* University of Maryland, Baltimore County (UMBC)
- Elsevier Science Direct, 326, 363, 366
- Encoding level (Elvl), 64–66

Evidence-based acquisition (EBA),
 19–24, 21, 23, 309
 Pennsylvania Academic Library
 Consortium (PALCI), 316–21,
 318
 putting data-driven puzzle pieces
 together in, 24–26, 25
 University of Colorado (CU)
 system, 354–55
 Ex Libris, 70, 88, 89, 94–95, 105,
 226
 E-ZBorrow, 311–12

F

FileZilla, 257
 Fisher, Roger, 330–31
 Flinchbaugh, Michelle, 292
 Flipped Interlibrary Loan (F.I.L.L.)
 model, 160–61, 163, 168
 Florida Center for Library
 Automation (FCLA), 326
 Florida State University System,
 325–26
 challenge of the outer core for,
 336–37
 challenges and successes for
 collaborative collection
 development by, 332–33,
 333
 early centralized collection
 development efforts at,
 326–27
 focusing on the inner core,
 334–35
 Janus Challenges, 327–38
 sustaining collaborative efforts
 over the long term, 338–40
 Frostburg State University, 279
 Funding and budgets, 39–40

restructuring of, 40–42
 stakeholders in, 42–43
 workflows improved through
 collaboration in, 44–45
 Fyffe, Richard, 259

G

Gaines, Annie M., 293
 Gale (company), 309
 Galligan, Finbar, 293
 Generally accepted accounting
 principles (GAAP), 247
*Getting It Done: How to Lead When
 You Are Not in Charge*, 330
 Getting It System Toolkit (GIST), 161
 Gibson, Sally, 106
 Giescke, Joan, 292
 Glasser, Sarah, 222
 GOBI Library Solutions, 142, 192,
 248
 Google Scholar, 124
 Grogg, Jill E., 223
*Guide for Electronic Theses and
 Dissertations, The*, 259
 Gumberg Library, 313, 315, 316–19

H

Hall, Susan, 259
 Health Sciences and Human Services
 Library, UMB, 269–73
 Hillsdale College Mossey Library,
 electronic resources at
 acquisition of, 205–6
 evaluation of, 204
 final thoughts on, 206–7
 first contact with potentially
 useful, 200–201
 introduction to, 199–200
 investigation of new, 201–2

- purchase of, 204–5
 - trial of new, 202–4
 - Holloway, Steven H., 261
 - Hoover, Lona, 259
 - Horizontal consolidation, 88
 - Hoskins, Ruth Geraldine, 292
- I**
- ILS. *See* Integrated library system (ILS)
 - Indiana State University, 260
 - Information age, the
 - cataloging prior to, 85–86
 - consolidation in the information industry in, 87–89
 - radical changes in traditional technical services divisions in, 86–87
 - transitions in workflows in, 89–95
 - Information Borrowing Web Report, WorldCat, 131–32
 - Innopac, Innovative Interface Inc., 73
 - Innovative Interface Inc., 73, 85, 91–94, 317
 - Institutional repositories
 - access points for faculty publications, theses, and dissertations, 294–95
 - books, 296–97
 - Cleveland State University (CSU)'s, 293–303
 - conclusions on, 304
 - connectivity to acquisitions, 303
 - faculty expertise and, 297, 297
 - further analytics on, 298–301, 299–301
 - literature review, 291–93
 - open educational resources in, 301–3
 - subject headings and keywords in, 295–96, 296
 - University of Maryland, Baltimore County (UMBC)'s, 289
 - See also* Digital repositories
 - Institutional Strategies and Policies for Electronic Theses and Dissertations*, 259
 - Integrated library system (ILS), 86
 - at American University Library, 65, 70
 - at Lehigh University Libraries, 171–72
 - library services platform (LSP) and, 88
 - migrating legacy acquisitions data and, 246–49
 - at Syracuse University, 55–59
 - at University of Illinois, 24
 - at University of New Mexico, 72–83
 - Integrated Postsecondary Education Data System (IPEDS), 244
 - Interlibrary loan (ILL), 86, 89, 91, 123–27
 - acquisitions in, through collection development, 139–56
 - collaboration and workflow integration between acquisitions and, 129–35
 - collection analysis using, 153–55
 - cost of borrowing versus purchase and, 144–49

Interlibrary loan (ILL) (*cont.*)
 course reserves and (*see*
 University of Maryland [UMD]
 Libraries)
 early use of, 123–24
 expansion of services in, 158–60
 Express Purchase system, 161–65,
 163–64
 Flipped Interlibrary Loan
 (F.I.L.L.) model, 160–61
 at Lehigh University Libraries
 (*see* Lehigh University
 Libraries)
 procedures for collection
 development for purchasing
 frequently requested material,
 149–51
 at Radford University (*see*
 Radford University McConnell
 Library)
 utilized to identify gaps in the
 collection, 151–52
 IPEDS (Integrated Postsecondary
 Education Data System), 69

J

Janus Challenges
 challenge of the outer core for,
 336–37
 challenges and success for,
 332–33, 333
 establishing an infrastructure for
 collaboration, 327–31
 focusing on the inner core,
 334–35
 legacy of, 337–38
 Steering Committee, 331–32,
 336–37
 summary, 327

Janus Conference on Research
 Library collections, 325, 327
 JSTOR, 20–24, 317–19

K

Kanopy system, 211–12, 216, 216–17
 KESLI (Korean Electronic Site
 License Initiative)
 conclusions on, 382–83
 data and methodology, 371–78,
 372, 374–79
 introduction to, 364–67,
 365–66
 related work, 367–70
 results and discussion, 380–81,
 380–82
 Konkiel, Stacy, 293
 Kowalski, Meghan, 223–24
 Kreyche, Michael, 260
 Kumar, H. Anil, 292

L

Laskowski, Mary S., 105
 Lebowitz, Faye R., 225
 Lehigh University Libraries
 automated reports at,
 171–72
 conclusions on new service
 models, 172–75
 expansion of ILL services at,
 158–60
 Express Purchase at, 161–65,
 163–64
 Flipped Interlibrary Loan
 (F.I.L.L.) model at, 160–61,
 163, 168
 ILL-ATO Plan at, 169–71
 introduction to, 157–58
 LoGreco Plan at, 165–68, 167

- Lewis, David, 292
- Li, Yu, 292
- LibGuides, 213
- Libraries of the Future (LOFT)
project, 240
- Library Hi Tech*, 259, 260
- Library Journal*, 310
- Library of Congress (LC), 50, 57, 80,
94, 220
- Library services platform (LSP), 88
- LIBROS Consortium, 73
- Lichtenstein, Walter, 310–11
- Lippincott, Joan K., 259
- LoGreco, Michael, 166
- LoGreco Plan at Lehigh Libraries,
165–68, 167
- Luyet, Ronald J., 329
- LVIS (Libraries Very Interested in
Sharing), 139
- Lyrasis, 313
- M**
- Maddox Abbott, Jennifer A., 105
- MARC records, 63–64, 69, 205,
351–53
- MarcEdit, 19, 69, 352
- Marshall, Ruth, 260
- Maryland Consortial Digital
Repository (MDCSDI),
278–79
- conclusions on, 289–90
- evaluation and future planning,
288
- implementation, 284–86
- post-implementation, 286–88
- pre-implementation, 280–84
- transitioning to implementation
group for, 279–80
- Maurer, Margaret Beecher, 260
- McConnell Library. *See* Radford
University McConnell Library
- McCutcheon, Sevim, 260
- McGill University, 260
- McKnight, David, 260
- Meagher, Elizabeth S., 223
- Memorial University Libraries
(MUL), electronic resource
management at
case study on, 226–31
collaboration and, 231–32
introduction to, 219–21
literature review, 221–26
- Metadata Resource Management
and Discovery (MRMD), 111
- Midwest Collaborative for Library
Services (MCLS), 80
- Miller, Laura Newton, 222–23
- Mitchell, Anne, 370
- Moore, Julie Renee, 106
- Morgan State University, 279
- Morrow, Anne, 292
- Mossey Library. *See* Hillsdale
College Mossey Library,
electronic resources at
- Mount Saint Mary College Kaplan
Family Library and Learning
Center
- background on, 209–11, 210
- e-book planning and
implementation at, 212–13
- e-resource outcomes at, 215–17,
216
- e-resources, faculty awareness of
new, 214–15
- streaming content planning and
implementation at, 211–12
- Move-to-storage projects, American
University Library, 66–67

Mower, Allyson, 292

Mugridge, Rebecca, 224

Muyumba, Valentine, 260

N

Name Authority Cooperative

(NACO), 73

National Union Catalog, 85, 124

Networked Digital Library of Theses
and Dissertations (NDLTD),
259

NorthEast Research Libraries

(NERL), 101–2

NOTIS system, 55–59

O

OCLC, 51, 57, 63–64, 73, 74–75,
76, 110

ILL system (*see* Interlibrary loan
[ILL])

See also WorldShare

Management Services (WMS)

OCLC Systems & Services:

International Digital

Library Perspectives,

259–60

Ohler, L. Angie, 222, 223, 224

OPAC (online public access
catalogs), 52–53, 86

Open Access journals, 292–93,
363

Open Library Environment 3.0
(OLE) system, 171–72

Oviatt Library. *See* California
State University, Northridge
(CSUN), Oviatt Library

Oxford University Press, 326

P

PALNI (Private Academic Library
Network of Indiana) libraries,
104

Pan, Denise, 222, 224

Park, Eun G., 260

Patron-driven acquisition (PDA),
131–35, 140, 369

Penman, Andrew, 259

Penn State, 258

Pennsylvania Academic Library
Consortium (PALCI), 69, 166,
276

cooperative purchasing of
e-resources by, 312–13

DDA and EBA projects, 316–21,
318

distributed print and microfilm
archives, 314–15

E-ZBorrow, 311–12

introduction to, 309–10

literature review, 310–11

new opportunities for member
libraries of, 313–14

overall benefits of, 321–22

RapidILL Pod, 314

what's next for, 322–23

Pharos system, 240

Piper, Alison, 105

Polanka, Sue, 221

Primo service, 226–27

*Program: Electronic Library and
Information Systems,* 260

Program for Cooperative Cataloging
(PCC), 57, 73, 79

Project Muse, 20–24

ProQuest, 88, 166–68, 258, 262, 309

- Purchase on demand acquisitions
 (PDA) pilots, University of
 Illinois Library
 CARLI-funded, for state, 14–16,
 15
 CARLI I-Share for unique titles,
 10–14, 11
 putting the data-driven puzzle
 pieces together in, 24–26, 25
- Purchase on demand (POD)
 programs for interlibrary loan/
 acquisitions collaboration,
 131–35, 140
- R**
- Radford University McConnell
 Library
 collection development unit,
 141–42
 interlibrary loan acquisitions
 through collection
 development: collection
 analysis for, 153–55;
 identifying gaps in the
 collection, 151–52; lessons
 from, 152–53; procedures
 for purchasing frequently
 requested material, 149–51;
 procedures for permanent
 acquisition of materials,
 144–49; turning problems
 into opportunities, 142–52;
 what the future holds for ILL
 and collection development,
 155–56
 interlibrary loan unit, 141
 introduction to, 139–40
- Radical Collaboration*, 329
 RapidILL Pod, PALCI, 314
 Relais D2D service, 159, 166
 Request for proposal (RFP) process,
 9–10
 Robert Gordon University, 259
 Romaine, Siôn, 222
 Rossmann, Doralyn, 292
- S**
- Salisbury University, 279
 Sapon-White, Richard, 226
 Scherer, Dave, 293
 Schmidt, Kari, 222, 223, 224
 Scopus system, 291
Serials Directory, The, 86
 Sharp, Alan, 330–31
 Short-term loans (STLs), 19–20
 Shrauger, Kristine J., 134
 Sierra, Innovative Interface Inc., 85,
 91–94, 317
*Six Challenges Facing Collection
 Development at Public Higher
 Education Institutions in
 Florida*, 328
 Southeastern Universities Research
 Association (SURA), 258
 Southern California Electronic
 Library Consortium (SCELC),
 239
 Stakeholders in purchasing, 42–43
 Stamm, Andrea L., 223
 Stand-alone integrated library
 systems, 74–75
 Statewide California Electronic
 Library Consortium (SCELC),
 43

St. Mary's College, 279
 Syracuse University, NOTIS system
 at, 55–59
 SysAid system, 189–90

T

Taber, Anne Marie, 260
 Tamm, James W., 329
Technical Services Quarterly, 259
 Technology, rapidly changing, 95–97
 Textbook reserves program, UMD,
 182–85, 185
 Theses Canada, 259
 Toll Access, 363
 Triangle Research Libraries Network
 of North Caroline (TRLN), 311,
 351

U

Unified Library Management System
 (ULMS) project, 240, 241
Union List of Serials, 124
 United Nations Educational,
 Scientific, and Cultural
 Organization (UNESCO),
 259
 University Microfilms International
 (UMI), 258
 University of Baltimore, 279
 University of Colorado (CU) system
 libraries consortium
 benefits of consortial cataloging
 and access model for,
 353–55
 conclusions on, 360–61
 establishment of CLAD by,
 350–53
 establishment of CLERT by,
 344–48

future of CLAD and CLERT in,
 357–60
 introduction to, 343–44
 overcoming challenges of
 informal consortium, 355–57
 pros and cons of consortial
 purchasing model for, 348–50
 University of Illinois at Urbana–
 Champaign (U of I) Library,
 105
 CARLI-funded PDA for state,
 14–16, 15
 CARLI I-Share pilot, 10–14, 11
 CARLI system, use of 9
 Collection Development
 Committee (CDC), 8
 e-books acquisitions, 16–19, 17
 evidence-based purchasing,
 19–24, 21, 23
 introduction to the library, 6–7
 new system for acquisitions
 process, 8–10
 putting the data-driven puzzle
 pieces together, 24–26, 25
 request for proposal (RFP)
 process, 9–10
 University of Maryland, Baltimore
 County (UMBC)
 consortial and campus
 institutional repository:
 conclusions on, 289–90;
 developing knowledge
 and support for, 276–77;
 evaluation and future
 planning, 288; finding money
 for, 277–78; implementation,
 284–86; introduction to,
 275–76; moving forward with,
 278–79; post-implementation,

- 286–88; pre-implementation, 280–84; transitioning to implementation group for, 279–80
- electronic theses and dissertations (ETDs)
 - management at: acquisitions taking responsibility for, 257–58; acquisitions working with the graduate school on, 261–62; conclusions on, 265–66; institutional repository, 294–95; introduction to, 255–56; literature review, 258–61; working with library colleagues on, 262–65
- Health Sciences and Human Services Library, 269–73
- University of Maryland, College Park (UMCP), 279
- University of Maryland (UMD)
 - Libraries
 - acquisitions and cataloging
 - collaboration: conclusions on, 118–19; introduction to, 101–2; literature review, 103–7; new organizational structure for growth through, 114–18, 117; reframing expectations, 107–9; revealing the gaps, 112–14; staff learning from each other in, 109–12
 - course reserves and acquisitions
 - collaboration: benefits and challenges, 190–93, 191; book ordering procedures, 180–82, 182; conclusions on, 193–94; introduction to, 177–80, 178; reporting e-resource problems in, 189–90; textbook reserves, program development for, 182–85, 185; vetting and purchasing e-books, 185–89, 189
- University of Michigan, 258
- University of Nevada, Reno, 106
- University of New Mexico (UNM)
 - Libraries
 - integration of workflows:
 - background, 73; cloud environment, 75; conclusions on, 83–84; cross-training, 77–79; in-house training and live webinars, 79–80; new roles and workflows, 81; obstacles, 82; old workflow versus new workflow at, 75–77; outside training, 80–81; solutions to challenges, 82–83; stand-alone ILS and departmental divisions, 74–75
 - introduction to the Libraries, 71–72
- University of Southern Mississippi
 - Cook Library
 - background on the university libraries, 29–30
 - merger of acquisitions and collection management
 - positions: benefits of, 35; conclusions on, 36–37; disadvantages of, 36; post-merger roles and responsibilities, 32–35; pre-merger roles and responsibilities, 30–32
- University of Waterloo, 259

University System of Maryland
and Affiliated Institutions
(USMAI), 101–2
U.S. News and World Report,
255

V

Verstak, Alex, 368
Vertical consolidation, 88
Virginia Tech, 258–59
Virtual Library of Virginia (VIVA)
Consortium, 139
Voyager system, 70, 89, 248

W

Wang, Xiaocan (Lucy), 260
Wayne State University, 106
Web of Science, 291
Weinheimer, James L., 106
Welburn, William C., 259
Wesolek, Andrew, 292
Wiley (company), 309, 326
Wiley, Lynn, 9
Winter, Debra, 260
Wolverton, Robert E., Jr., 259
WorldCat and ILL, 124, 131–32

WorldCat knowledge base (WCKB),
110–11, 112–14
WorldCat UMD, 110
WorldShare Collection Manager, 352
WorldShare Management Services
(WMS), 73, 75, 77, 85, 89–91,
105
in-house training and live
webinars on, 79–80
new roles and workflows with, 81
obstacles in implementing, 82
solutions for implementation
challenges, 82–83
WRLC (Washington Research
Library Consortium), 66,
68–69

X

Xu, Amanda Z., 260

Y

Yang, Zheng Ye (Lan), 292

Z

Zopfi-Jordan, David, 132
Zou, Qing, 260