SOPAG Task Force on UC Libraries Collections Space Planning

Report

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Executive Summary

Based on current projections, the UC libraries need to reach a 0% growth rate within 5 years to be able to house physical collections within anticipated space. With delay, at best, of an SRLF III or any campus library additions, UC Libraries are now forced to become more aggressive in reducing print collection growth rates. The CDC collection budget reductions and increasing shift in collections acquisitions toward digital formats over print are likely to mitigate the rate of print collection growth for campuses, but to achieve the reduction needed, it will be necessary to embrace the expectations stated in CDC's 2009 paper *The University of California Library Collection: Content for the 21st Century and Beyond,*

> "The Libraries expect to decrease the collections' total physical footprint by reducing duplication".

The Task Force was charged to:

- Investigate what other academic libraries and national organizations are doing to address space issues. Identify opportunities for partnerships outside UC and options for developing collections regionally and nationally.

- Provide recommendations on defining the nature of the RLF collections in the future.

- Identify opportunities and challenges within UC for better managing RLF space in coordination with campus space plans, both in the short and longer term.

- Recommend long-term options, actions, and policies for best managing RLF collection space in coordination with UC campus space plans, and that take into consideration how mass digitization projects and digital preservation services will impact print storage needs and physical storage facilities.

- Provide analysis of costs and benefits of each recommendation.

- From these recommendations, prioritize the top 5 options to actions to explore and/or actions to implement.

This report describes past and current UC, regional and national initiatives addressing these issues, and presents both opportunities and challenges we still face in addressing collection space. Key elements in the success of the proposed recommendations are developing trust in repositories and achieving success in changing behaviors and expectations.

I. Introduction

The SOPAG Task Force on UC Libraries Collections Space Planning was charged with advising on a broad range of mission-critical collections space planning issues. The key components of the charge are broadly drawn:

- Investigate what other academic libraries and national organizations are doing to address space issues. Identify opportunities for partnerships outside UC and options for developing collections regionally and nationally.

- Provide recommendations on defining the nature of the RLF collections in the future

- Identify opportunities and challenges within UC for better managing RLF space in coordination with campus space plans, both in the short and longer term

- Recommend long-term options, actions, and policies for best managing RLF collection space in coordination with UC campus space plans, and that take into consideration how mass digitization projects and digital preservation services will impact print storage needs and physical storage facilities.

- Provide analysis of costs and benefits of each recommendation.

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II. Methodology

Because of the broad scope of the charge, the Task Force has concentrated much of its work on information gathering and analysis: collecting background documents, identifying relevant current, proposed and prior work, as well as related initiatives including UC and national task forces; and defining issues relevant to the first three of our charges. Trying to determine what actions have been taken, which have not, and why has formed the basis for many of our findings and recommendations that follow. We held weekly conference calls, developed a wiki to post relevant documents and notes, and consulted with a number of relevant CDL and UC personnel, including:

- Scott Miller (NRLF) and Colleen Carlton (SRLF) regarding RLF perspectives and planning.

- Emily Stambaugh (CDL) about the CDL Shared Print. Emily talked about prospective monographic and journal subscription shared print coordination proposals being discussed and put forward by the CDL Shared Print Steering Task Force, such as the shared print in place proposal (draft to CDC in Sept 2009), the common access for shared print policy (draft to CDC in Sept 2009), proposals for standard acquisition practices and bibliographic service standards, and shared approval plans for prospective monograph collecting, area studies, and general/major monograph vendors (currently under investigation). Emily also mentioned potential coordination for current print journal subscriptions.

- Martha Hruska (UCSD) and other NGTS Steering Committee members regarding Next Generation Technical Services and their potential recommendations about use of the RLFs, in particular. Two of the NGTS task forces will issue their reports and recommendations in early 2010

- Heather Christensen (CDL) regarding Hathi Trust and Mass Digitization, and the impact those programs may have on space planning.

- Ivy Anderson (CDL) regarding the WEST grant and Google Settlement.

- UC Collection Development Committee regarding the types of materials that should be housed in the RLFs.

Several overarching issues, expectations and trends emerged from reading the various reports, projects, and proposals and from interviewing key UC personnel. In synthesizing the great deal of past, current, and proposed work by a number of UC, regional and national task forces that relate to space issues, the task force has looked in particular at those current and proposed initiatives that overlap some aspects of this task force's charge. This report identifies cases where the there is duplication of effort with our task force charge, such that results of other groups and task forces will best inform choices to be made. These initiatives will be noted in relevant sections of the report. A complete list is included in Appendix B.

These findings make it very difficult to make long-term recommendations and raise serious questions about the ability to do a truly scientific cost-benefit analysis tied to any set of recommendations. The following report draws together the principle issues impinging on collection space planning for the coming years, and we believe it responds to the charge in an informed and pragmatic fashion.

III. Background

UC SPACE & GROWTH PROJECTIONS

Based on current projections, the UC libraries need to reach a 0% growth rate within 5 years to be able to house physical collections within anticipated space. With delay, at best, of an SRLF III or any campus library additions, UC Libraries are now forced to become more aggressive in reducing print collection growth rates. The CDC collection budget reductions and increasing shift in collections acquisitions to digital formats over print are likely to mitigate the rate of print collection growth for campuses, but to achieve the reduction needed, it will be necessary to embrace the expectations stated in CDC's 2009 paper *The University of California Library Collection: Content for the 21st Century and Beyond,*

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RLFs

The University of California Regional Library Facilities (RLFs) contain nearly 1/3 of the holdings of the UC Libraries (approximately 12 million volumes or volume equivalents). Currently, the RLFs accommodate just over 50% of the current annual collection growth which means just under 50% is not accommodated.

At current deposit rates, the Southern Regional Library Facility, which has a capacity of 6.9 million volume equivalents, will be full in November 2011—less than 2 years from now. (However, some or all of the space currently occupied by the Film and Television Archive (over 650,000 volumes) may be reclaimed for library deposits when the Archive begins moving out in 2011-12. There are no projections yet about how much space would be reclaimed.)

The Northern Regional Library Facility, with a capacity of 7.55 million volume equivalents, will be full in November 2015 at current deposit rates. The current annual deposit rate at SRLF is approximately 285,000 items at SRLF and 220,000 items at NRLF per year. It should be noted, however, that the types of materials space available varies considerably. At SRLF, space for maps, drawings and microfilm will be filled by Spring 2010; manuscripts and archives, Spring 2012; microfiche 2016; but standard volumes by November 2011.

There are a number of expectations for the use of RLF facilities that assume there will be adequate space. Both NGTS and the Shared Print Program have already or may propose use of the RLFs for centralized services that could impact space and the types of materials that should be housed centrally, such as:

- Mass digitization processing in conjunction with shared print archives

- Centralized technical processing centers

- Housing of shared print collections

- Handling campus excess collections during construction and campus reallocation of space

See Appendix C for background on the RLFs.

Campus libraries

According to systemwide library planning data, campuses have estimated that by 2017 they would be adding a total of over 7.5 million print volumes to their collections, including on-campus and remote storage space. The survey showed that the majority of the increase (5.5 million volumes) is anticipated to be stored in an RLF. The remaining 2 million volume increase on campuses is for the most part contingent on new library buildings, as an additional 155,000 square feet of usable library space (or ASF) would be required to house the volumes. Four campuses have local off-site storage facilities: Davis, San Diego, Santa Barbara, and Santa Cruz. Since that survey was conducted, campuses have closed branches and building additions have been delayed, putting increased pressure on both campus and RLF storage expectations and the need to withdraw volumes from collections. While reduced collections budgets, along with increasing emphasis on acquisition of digital format resource, may somewhat mitigate short-term space needs, annual net volume increases for campuses as reported in *University of California Libraries Statistics, Table 1: Bound Volumes and Serials Received* through 2008-2009 do not show appreciable reductions.

See Appendix E for campus growth projections.

STUDIES AND PROJECTS

There is an extensive list of UC and third party initiatives and studies—past, present and projected—included in the appendices that gives a sense of the extent of work that has been

done related to collections space, normally in the frame of shared collections. Appendix B lists the major initiatives the Task Force reviewed.

Related UC initiatives

The task force reviewed a number of studies, projects and programs done in the last several years within UC that relate to collection space issues, where expectations for use of collection space have been articulated.

CDL Shared Print (SPP) and Shared Print Steering Task Force (SPSTF)

Because of the potential benefits for shared collections saving space, a major player in planning for UC collection space is CDL UC Shared Print program. Emily Stambaugh shared with the task force a summary of CDL Shared Print's current and near term shared print projects and programs, along with ideas for future use and services through the RLFs. (See Appendix D) CDL Shared Print has done extensive cost analysis of specific proposals and initiatives that give good indications of cost benefits for many of the programs proposed. *Other*

There is a wide range of studies and task forces that have or are contributing to our understanding of space issues. RLF space and projected growth rates for campus and RLF space has been reviewed for each RLF addition; de-duplication has been analyzed most recently by a task force in 2006 and less formally by CDC. The persistence policy and its implementation have contributed to creating trust in the stability of the RLF collections. There has been considerable cost analysis of various initiatives. In addition to the extensive RLF cost and space analysis, each shared print initiative has generated cost analysis of RLF and technical processing operations, as have past de-duplication task forces and government documents shared collections proposals. It is anticipated that the Next Generation Technical Services will provide cost analysis, as well.

Related regional and national initiatives

The task force was charged with investigating what other academic libraries and national organizations are doing to address space issues and to identify opportunities for partnerships outside UC and options for developing collections regionally and nationally. The task force discussed initiatives with UC personnel working on regional and national projects and reviewed numerous articles regarding other initiatives underway at peer institutions from which UC can learn if not collaborate, including several studies and initiatives in the area of shared print conducted by OCLC Research (RLG), CRL, Ithaka and others. A full list of the work uncovered is appended to the report (APPENDIX B)

Major findings and recommendations from the various national studies repeatedly outline the infrastructure and policies needed to implement shared and consolidated print collections.

- Trusted and sustainable archives—both digital and print.

- Level of validation essential in driving number of print copies need to be preserved

- Adherence to accepted digitization standards

- Common methods for access and disclosure of archived collections

- Development of financial models to support shared collections across institutions

- Formalizing retention commitments

- Criteria for exceptions

These issues are not new to UC. The task force found that UC is already engaged, frequently in a leadership capacity, in these initiatives. This is appropriate given the collective nature of the challenges. There have been some failed attempts to create national and regional shared collections, such as the OCLC supported Cooperative Collection Management Trust (CCMT). The prospects for initiating the UC/CRL E-Journals Shared Print for Licensed Content (Prospective) have dimmed very recently due to the lack of libraries willing to invest at this point. However, there are collaborative initiatives that are presently underway that hold the possibility for changing the set of options in a profound way. UC's investment and leadership in such national initiatives will continue to inform short as well as long-term collection management and space planning.

Major initiatives:

- A very promising planning initiative is the WEST regional distributed retrospective shared journal archive planning proposal. This planning effort, due to be completed in June 2010, is an attempt to leverage and optimize remaining storage facility space by coordinating and distributing responsibility for journal backfiles across libraries in the Western region. The project goals are to design a business model, selection criteria, and standards for low-level validation for a distributed, retrospective shared print repository service for journals across multiple institutions. Some aspects of the WEST charge directly overlap work this task force is charged to do. At this point, WEST seems to offer the most likely scenario for regional cooperation. In tandem with the WEST effort, UC Libraries may also coordinate and reduce duplication of prospective print journal subscriptions to further optimize the physical footprint of our collections.

- A similar proposal for an IMLS grant sponsored by Lyrasis for a "cloud" library of monographs that is being suggested that would investigate options for shared print of retrospective monographs similar to the strategies in the WEST proposal for journals.

- UC is working nationally on efforts to modify the 583 MARC field to allow libraries to record retention commitments and potentially item condition information, and to support tools that would indicate presence or absence of that field. Wide adoption of this standard would allow the growth of reliable information about retention decisions across library systems to allow network development nationally and regionally. Discussion is ongoing in the cataloging community.

- UC's JSTOR Dim Archive, as a trusted print archive, contributes to national shared collections planning by providing an opportunity for campuses and other institutions to withdraw material.
- There are initiatives in ASERL and CIC to work on managing government documents in combination with digitizing projects. University of Minnesota has sent 86,000 documents to Google, and approximately 80,000 of those should be available in Hathi Trust Digital Repository. Other CIC libraries will also be sending documents to be digitized later in 2010. A related project is working by GWLA is working on digitizing and providing

persistent and unrestricted access to pre-1975 federal technical reports. It is expected that this project will transition to CRL sometime later in 2010.

IV. Opportunities and Challenges

The task force discussed opportunities within UC for better managing RLF space in coordination with campus space plans, both in the short and longer terms as well as in terms of managing the legacy collections and rethinking prospective collection development. Below is the list of what could be opportunities and challenges, some of which will be recommendations later in the report.

Opportunities

Reflecting on our fact-finding activities, the Task Force identified a number of 'opportunities' for making more efficient use of existing space. These included in no particular order:

- Develop UC Shared Print Monograph Collections acquired collectively and located at an RLF or "in place" on a campus. This would provide the opportunity for campuses to prospectively reduce the rate of increase in their physical collections. Consider both system-wide and multi-campus (selected campus participation) plans.

- Develop consolidated and coordinated UC wide Approval Plans.   Encourage multi-campus prospective approval plans where appropriate to reduce low-use, duplicate materials and leverage UC's resource-sharing infrastructure.

- Remove all duplicate print copies of JSTOR Archive titles from the RLFs. Strongly encourage further space reductions at campuses based on the SRLF-based JSTOR trusted archive.

- Expand and implement the RLF Persistence policy. Promote and support implementation guidelines currently under development by a CDC task force (http://libraries.universityofcalifornia.edu/cdc/taskforces/) that can facilitate increased campus-based withdrawal processes.

- Discourage and eliminate duplicate formats. Take advantage of digital archiving projects. Encourage reduction of campus-based dual-format collection, particularly where either a trusted shared print copy is held in UC and/or digital archiving programs such as Portico, LOCKSS, and CLOCKSS can mitigate concerns about preservation and access.

- Expand shared print collections and processing to NRLF. Affirm that NRLF has the resources for processing operations to handle shared print materials parallel to SRLF processing operations.

- Leverage UC's relationship with OCLC to fast track the development of the 583 MARC tag for indicating shared/persistent copies and metadata for preservation. If OCLC is unable to implement changes in the near term, develop independent disclosure mechanisms that are interoperable with our union catalog.

- Establish criteria and sunset dates for ceasing shared print for licensed e-journals. In 2006, CDC discussed and drafted criteria for determining when to create a shared print archive for licensed e-journals, which by default also begins to define when one may no longer be needed.   Similar criteria have not yet been developed for monographs.

- Leverage investment in Haithi Trust. Identify ways to incorporate Hathi Trust preserved and accessible content into local and system-wide collection space planning decision-making.

- Continue to promote the type of partnership articulated in the outstanding CRL/UC proposal for a Shared Print archive for licensed e-journals. Although it is not clear that the current CRL/UC partnership will gain enough support, UC should continue to press for this kind of national collaboration.

- Reduce campus RLF deposit allotments to accommodate a priority for housing shared collections in the RLFs and to enforce needed changes in expectations and behaviors related to collections space availability.

- Coordinate shared collections for public domain materials, specifically government documents. This has been discussed by government information librarians over several years. Attempts have been made to modify depository agreements. A recent Ithaka paper outlines a proposed model for coordinating digitization with creating shared print archives for the Federal Depository Library Program (FDLP).

Challenges

A number of challenges (behavioral, technical, procedural) exist that restrict the capacity for developing efficiencies were also identified:

- Development of sustainable funding models for processing and managing shared print collections. While there are longstanding campus cost share models for acquiring content, the lack of sustainable cost sharing funding models, particularly for funding necessary personnel, to maintain facilities and process shared collections hinders progress in creating these collections that would encourage reduced duplication across UC collections.

- Need for non-labor intensive, low overhead approaches and solutions for establishing processes and procedures and managing shared print collections.

- Changing existing behaviors and expectations within UC in particular to take advantage of opportunities: Withdrawing materials, sharing work processes.

- Inadequate and inaccurate holdings information. Having access to adequate local holdings records to identify duplication across UC collections, or with others outside UC. Collections that would otherwise make excellent candidates for de-duplication (e.g. government information) have such poor records that it is labor intensive to conduct a project.

- Inadequate tools and solutions to do required detailed collection analysis. The OCLC Collection Analysis Tool has given some useful information, but has proven to be inadequate for the extensive analysis needed.

- Determining the number of print copies needed in UC, regionally and nationally for ensuring access and risk management. (Or, developing trust in a single copy for the system policy). Yano[1] has conducted the most significant risk management study to date, proposing the number of print copies needed depending on the level of validation and type of archive.

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[1] Yano, Candace et al. *Optimizing the number of copies for print preservation of research journals.* October 2008.

While it is clear that UC needs to work with external partners to ensure adequate print, there is not yet adequate coordination of any such initiatives.

- Methods and costs for discarding and de-accessioning massive amounts of state property. While massive discard projects win political points in some arenas, the same may cause political problems for some campuses. Such projects are also labor intensive.

- Campus cost avoidance that is often calculated for shared print projects by using space savings (asf) for potential to withdraw duplicate collections is not actual funding available to be repurposed.

- Lack of consensus on acceptable levels of validation. Reaching agreement on an acceptable level of validation for print archives that is sustainable. WEST and some of the other organized research projects will help with this. The Preservation Advisory Committee (PAG) is currently reviewing issue-level validation standards at the request of CDC and the Shared Print Program.

- Lack of a reliable "registry" of records for shared/persistent items. CRL is looking at ways to inventory and publicize library archiving efforts. A current CRL Mellon Grant is trying to determine what such an inventory should capture to help libraries make collection management decisions.

- Developing trust in both print and digital archives to aid in de-accessioning print equivalents. CRL has just completed a successful audit of Portico. They will also be auditing Scholar's Portal and Hathi Trust.

- Retrospective weeding of collections is very labor intensive and not likely to yield usable space except in targeted areas, such as journal runs. Need automated strategies.

- Weeding RLF collections could be problematic. With the persistence policy already in place, campuses have already been discarding campus copies based on the assurance that the RLF copy will remain permanently in the collections. There would need to be additional assurance and criteria to allow discarding persistent titles to honor this trust.

- Campuses are closing and consolidating branches, losing physical space.

- Federal government information depository retention requirements. There is active national discussion on ways to allow depository libraries to reduce their print collections.

- SRLF, in particular, has limited space for particular types of materials, such that future deposits for maps, drawings and microfilm will be filled by Spring 2010.

V. Defining RLF Collections

The task force was asked to provide recommendations on defining the nature of the RLF collections in the future, considering the several specific questions below. RLF policies, procedures and space projections have been analyzed repeatedly in support of building additions to the two facilities.

As conceived in 1977, the original role of the RLFs was "primarily to provide secure, high-quality, low-cost space for infrequently-used print materials of continuing research value…and

provide the services required to process and control the deposited material, and to retrieve and deliver items to the requesting library…" [2] Throughout the years, campus and system-wide needs for RLF space have evolved as user confidence in the level of service for materials has greatly improved and acceptance of remote storage has increased. Campus deposits have been primarily un-coordinated, in that, except for specific shared print projects and policies about not duplicating titles already held, the materials deposited in the RLFs have been based largely on campus decision-making and not in consultation with other campuses. By default, the persistence policy now makes these materials shared collections. The creation of CDL Shared Print, which formalizes specific types of shared collecting and is based on more coordinated decisions on collections, has also created demand for neutral RLF space. As a consequence, the RLFs have evolved such that current roles include:

- Storage of less frequently needed materials in all formats
- Preservation imaging at SRLF (microfilm images, microfilm reels, digital images)
- Depository for single system-wide print copy of journals received only electronically by campuses.
- Facility for housing designated shared print collections through the Shared Print Program.

Issues of duplication and "permanence" of materials housed in the facilities, have generated new policies in the last few years, including the policy on persistent deposits. There has been increased priority for processing and housing specifically identified shared collections (print for e-journals, JSTOR Archive) and their related services, creating a dilemma between meeting the needs to house low use campus materials and the expanding shared print collections in the limited space available.

A. Identify the types of materials that should be given priority for inclusion in the RLFs.

Considering the range, scope and character of initiatives underway at the local, regional, and global levels, the task force, in consultation with CDC, recommends development of collection policies to govern the RLFs that prioritize the following categories in the RLF general collection designated spaces. As user access option evolve, and as policies such as the Persistence Policy, the establishment of the JSTOR dim archive, and de-duplication activities suggest that over time the characteristics of the RLF collections will bear closer similarity to that of a special/archival collection rather than a general collection.

- Shared Print Collections Material (material that has received some form of formal "UC treatment")

- Microformat material. Due to declining use, in combination with RLF space availability, there is the possibility that prioritizing microformat materials could promote elimination of redundant microformat content - both with digital and other microformats. And it could possibly be tied to implementation of new microform view-over-internet technologies.

- Special Collections. The growth of digital versions of general collections material suggests the possibility that RLF spaces might over time be re-purposed around the concept of prioritizing Special Collections. It is likely that analog special collections will

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[2] Regional Library Facilities Planning Task Force *Report*, December 2004.

be growing for the foreseeable future and this content is least subject to mass digitization technologies. Low-use, high-value, high risk or highly unique research materials. This is a more traditional category of content focus for the RLF's and it remains an important role for RLF space in the view of the task force. In addition, UC should be careful to ensure that the RLF's should not be tasked with housing high-use materials, since this results in a false savings (savings of campus space in exchange for increased ILL/document delivery costs).

> *B.* **How retrospective and prospective shared collections fit into RLF strategies, including the potential for decentralized shared collections that could be housed across campuses and/or RLFs;**

It is clear that shared collections have the potential for reducing and avoiding unnecessary duplication across campuses and maximizing scarce shelving capacity at the local campus level. CDC has identified shared collections as a priority for RLF space. The materials in the RLFs that are persistent form a basis for increasing campus copy withdrawals, where appropriate. Going forward, it will be necessary to concentrate both retrospective and prospective RLF deposits in priority types, requiring campuses to consider the best use of their space for both local collection needs and absorbing some portion of shared print in place collections.

While the RLFs serve as neutral, trusted locations for shared collections, without building additions to both RLFs, there simply isn't enough room in these centralized locations to house all shared print initiatives going forward. By necessity, campuses will need to house a portion of designated shared collections and provide the necessary preservation and access services for them, given that the bulk of the actual space is on campuses.

The Task Force is paying close attention to the work of the Shared Print Steering Task Force, which is working on initiatives, guidelines and procedures for prospective shared collections, and we believe this work should be strongly supported. APPENDIX D outlines a number of potential uses of the RLFs for shared collections, where they would expand their roles as for centralized acquisitions, technical processing and advanced delivery technologies for shared material housed centrally.

> C. **Potential of de-duplication across the RLFs, among collections on campuses, and with non-UC partners**

The Task Force reviewed the various historic reports analyzing options for de-duplication across the RLFs and comments of RLF managers regarding the labor-intensive and technically challenging character of monographic and journal de-duplication efforts. Several issues that past studies have indicated impede de-duplication remain:

- Poor records to compare holdings, although NRLF's move to Millennium may improve record comparison.

- Labor-intensity of work.

- Lack of usable space gains due to scattered shelving of duplicate items. While SRLF estimates internal duplication of approximately 126,000 volumes, and NRLF estimates 3-4% duplication within its holdings, these are scattered throughout the facilities and would yield very little usable space without massive shifting of the collections.

As indicated in sections above, there are still a number of issues to be resolved before de-duplication with non-UC partners can be realized. The WEST project is addressing the majority of these:

- Business models
- Retention agreements
- Accepted level of validation
- Adequate records for disclosure or archived materials and ultimately cross-collection analysis

While there is not an immediate system-wide option for cooperative programs with non-UC partners, withdrawal and removal of journal content that is housed in non-UC regional or national archives such as those proposed by UC/CRL or WEST initiatives should remain a primary goal, and UC should continue its active participation in developing such partnerships. The work of the WEST project has the potential to provide infrastructure models that could make these more viable. There is not yet enough confidence in withdrawal of all print where only a digital surrogate exists in trusted archives, but this may have future potential. The positive audit of Portico is a promising step in developing a level of trust needed.

The task force does, however, believe there is considerable potential for targeted, massive journal de-duplication processes within UC where there is a large benefit (in terms of space savings) for a smaller investment in bibliographic work. This de-duplication effort could be extended to intra and cross-RLF activities, such as:

- De-duplication of JSTOR holdings in general collections areas of both NRLF and SRLF with holdings in the JSTOR Dim Archive, IEEE and CoreSTOR. SRLF has discarded approximately 6965 volumes to date, and estimates that and additional 7000 volumes could be discarded.   Approximately 650 of those have been discarded.

D. **What are the benefits and issues of concern for any de-duplication among collections on campuses and the RLFs?**

Both the persistence policy for RLF materials and the rapid turn-around time for delivery of materials in the RLFs have been key in creating campus' confidence and trust that titles will remain (within reason) in the UC collections and be accessible. As digital delivery technologies improve, this confidence should increase.   A major benefit is that campuses are able to more aggressively withdrawing titles that are in RLF collections, with the potential for saving local campus space for storing more highly-used and new materials.   Through coordination in the SPP and bibliographer groups, there is also potential to build broader and deeper collective collections that avoid unnecessary system duplication.

There are still a number of concerns:

- Determining the number of copies of any title needed throughout the UC system to meet user demand.
- Increased resource sharing also means increased reliance on others, and lack of local control.
- Known and unknown new and ongoing costs:
    - materials may need to be shipped from elsewhere (loss of time, cost of transportation), risk of loss, diminished resolution from digitization, incomplete materials
    - shifting costs from one segment of the budget to another—savings in collections budgets creating potentially large increases in resource sharing costs.

OhioLink has developed a statistical methodology for monitoring the appropriate number of copies of a title needed in the system over time.[3] The libraries can continually assess the current number of copies and the demand for them. UC may want to explore the option to adopt a similar system to help determine appropriate withdrawals over time.

E. How mass digitization projects and digital preservation services relate to print storage needs

UC has invested considerable resources in digitization and preservation/access programs, such as HathiTrust and Portico. Initial estimates for the WEST project indicate that UC RLF holdings in Hathi are approximately one million titles, and approximately 300,000 titles in the RLFs are already included in Hathi. These programs should make it possible for UC to exclude (and de-accession) some duplicate content when there is more confidence that the material is reliably preserved and accessible for the long-term in digital format. Because there are still issues about rights of use, Google subscription scope, and confidence i**n** the quality of digitization, the task force thinks it is premature to de-accession any RLF titles included in mass digitization projects. What may be more feasible is de-duplication of such titles across campus collections where a shared copy exists in an RLF.

F.   Consider the issues related to the integrity of collections in the event of natural disasters or emergencies.

The Task Force has not devoted time to this issue, other than in reviewing the work of Yano that proposes models for determining the number of copies of any title needed, based on the level of preservation. We believe that this issue is best explored by the Preservation Advisory Group and CDC. Behind effective management of collections will continue to be the quality of information and records on which to base decisions. Mechanisms for coordinated preservation across UC should be a part of NGTS planning.

There is a promising potential risk assessment tool that UC Berkeley has been using, *Risk Assessment: Library Collections Tool*, http://www.ucop.edu/riskmgt/erm/libcollwb.html

that has just been introduced for UC wide use. As noted on the web site for the tool, the assessment can be applied to evaluating risk for a wide range of collections and assist in setting priorities for controls.

VI. Cost Benefit Analysis

Reducing the rate of growth for prospective print collections through collaboration and increasing digital information acquisition and creation will most likely be the most pragmatic and cost effective ways to deal with space issues. CDL Shared Print has done extensive cost modeling for various projects, including de-duplication of the JSTOR Archive titles. Past cost analysis, both by UC and others, indicates that de-duplication and reduction of retrospective collections is more labor intensive and costly, although there are potentially targeted reductions of collections that will have cost benefit. De-duplication of journal holdings is easier and most effective at saving space and in terms of costs, while de-duplication of monographs is very labor intensive and not very effective at saving space. Due to the way materials are housed in an

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[3] Kairis, Rob. "Consortium level collection development: a duplication study of the OhioLINK Central Catalog", *Library Collections, Acquisitions, & Technical Services*, 27 (2003) 317-236.

RLF, only targeted withdrawals of the RLF collections (such as print journal runs) will generate useful space in any cost effective way. Campuses, however, could more aggressively withdraw JSTOR titles to gain local space. Cost savings to campuses for withdrawal or space avoidance have been calculated by translating assignable square footage into dollars. While the figures can be used to demonstrate UC Libraries' responsible use of existing space to support proposals for future shared storage facilities, the dilemma is that the actually funding is not available to repurpose, since the "savings" are actually in avoidance of expenditure/long term housing costs for existing space and not line items in annual budgets.

WEST project planning grant is developing and investigating shared cost and models for cost recovery from external partners for developing shared retrospective journal collections with non-UC partners. The WEST project will be exploring best candidates for shared journal archives, organizational and cost models, development of cooperative agreements, and risk management factors.

VII. Recommendations

The task force was asked to recommend short- and long-term options, actions, and policies for best managing RLF collection space in coordination with UC campus space plans, taking into consideration how mass digitization projects and digital preservation services will impact print storage needs and physical storage facilities.

The task force struggled with this aspect of its charge. On the one hand, there are several current parallel activity streams both in UC and regionally that would impact a fully fleshed set of short- and long-term recommendations and it seems premature to make recommendations while this work is underway. On the other hand, it is clear that several practical concerns require immediate attention. Declining space at the RLFs is the principal concern, logarithmic increases in digital storage needs and costs another: SRLF will be full in less than two years according to current projections.

Specific factors and issues were listed in detail in the "Opportunities and Challenges" section, above. A few additional notes about what lies behind our recommendations:

- Increasing trust in both UC's persistence policy for shared collections and the viability of third party repositories (both print and digital) is critical to changing behavior and expectations about the need to maintain duplicative print collections. There is still not the same level of confidence in third party repositories as there is within UC. The recent positive audit of Portico by CRL is an important step in developing that confidence.

- A combination of retrospective and prospective activities will be needed in order to address the space challenges facing the libraries. It is necessary to both reduce the rate of print acquisitions and to withdraw materials from the campus and RLF collections. We understand that past studies have shown that some retrospective de-duplication projects are too costly for the expected benefit. It is costly to identify, process, and physically remove items from the shelves, and the space cleared might not be contiguous, requiring extensive shifting of materials to create usable new space. Because of the way items are shelved, it is likely more cost effective to withdraw duplicates from campus collections, where projects can be targeted to gain usable space.

- The lack of sustainable long-term funding for processing and managing shared collections has hampered the ability for past projects to succeed or be broadened in scale. The task force repeatedly discussed the importance of establishing a long-term

sustainable funding models as necessary for the following recommendations to succeed. Staff resources will be needed to accomplish any of the recommendations.

- Any project should take into consideration the academic field. While in some areas print is considered an archival relic, in others it is still the primary information resource.

- Whenever possible UC should leverage existing infrastructure and staffing. The Task Force hopes that CDL Shared Print may be the appropriate place for the coordination, tracking and reporting out related to any relevant UC-wide or campus initiatives.

Near-term Recommendations:

The task force recommends several near-term strategies to implement a number of policies and actions that will begin to require changed behavior and expectations by campuses.

1. Develop and implement system-wide cost sharing models for processing and housing shared collections.

2. Managing the RLF Collections by:

   - Establishing a no-duplication policy between the RLFs

   - Manage RLF space in closer coordination, by using NRLF for new shared print collections and for southern campus needs when SRLF is full.

   - Assign priority for RLF spaces to Shared Print Collections materials. Reduce annual campus deposit allotments to accommodate shared print collections ingested and to reinforce the need for campus de-duplication and space management over RLF deposit.

3. Pursue prospective collection management coordination, including:

   - Shared approval plans and increased collaborative purchase arrangements among campuses to reduce initial duplication within UC

   - Shared print in place as an alternative to RLF housing of shared collections

   - Acquisition of e-formats as the default where possible

   - House new shared print projects in NRLF (ensuring that it has capacity and resources) or on a campus (e.g. Springer books at UCM)

   - More coordinated, collaborative collection review by CDC.

4. Pursue retrospective collection management strategies, including:

   - Withdrawal of JSTOR titles from campuses.

   - Regional and national initiatives to consolidate journal volumes system-wide for both space avoidance on campuses and potential partial cost recovery from non-UC partners.

   - Shared print in place as an alternative to RLF housing of shared collections

- Withdraw titles on campuses that are held in designated shared print collections and/or persistent in one of the RLFs.

- Develop shared microform collections at RLFs that would allow de-duplication of campus microform collections. (e.g. newspapers)

Long-term Recommendations

Recommendations from the Next Generation Technical Services and Shared Print Steering Task Force will no doubt impact and feed into long-term strategies for collections space.

1. Consider carefully the range of service programs and staffing levels at the RLFs given the outcomes of the NGTS Task Groups and Shared Print Steering Task Force Recommendations and look for synergies.

2. Re-establish a system-wide management position that manages, coordinates, and oversees system-wide collection space issues outlined in this report.

3. Establish policy on appropriate levels of validation and disclosure (possibly MARC 583) that will promote trust to withdraw print and is consistent with light-weight, sustainable workflows and processes.

4. Explore new service models to insure quality and just in time services for faculty and students. Explore adoption of Internet delivery technologies at both campuses and the RLFs to provide rapid delivery of information resources remote from user (e.g. new microfilm Internet delivery options, print on demand, improved scanning).

5. Coordinate reduction of print collections with development of digital collections. Example: Investigate a joint project of digitizing government documents with withdrawal of multiple copies.

6. Re-examine the persistence policy to address criteria for the potential permanent withdrawal of materials when a trusted non-UC archive will suffice for access.

7. Discontinue selected prospective shared print journal programs for licensed content as trusted third party archives are created, such as the proposed UC/CRL archive. (Make exceptions for those not contained within Portico with post-cancellation access rights).

8. Continue to actively participate in and advocate for regional and national efforts to create collaborative collections.

NEXT STEPS

The task force was asked to prioritize the top 5 actions to explore and/or actions to implement. This is a somewhat longer list—it will be necessary to move forward in a number of areas in order to be successful in meeting space needs.

1. Share this task force report with the All Campus Groups (ACGs) for comments.
2. Work with the NGTS Team to develop cost sharing models for processing and housing shared collections and for clarifying intended services and functions at the RLFs.
3. Investigate NRLF infrastructure enhancements needed to become a more formal shared print deposit site.

4. Support Shared Print Program initiatives for shared print in place and prospective collection development.
5. Create powerful incentives and set targets for campuses to de-duplicate campus collections with those items at the RLFs in anticipation of reductions and/or elimination of the option to deposit materials in the RLFs.
6. Support WEST and monitor findings to apply to other shared print initiatives within UC and with external partners.
7. Review and revise RLF policies and deposit allocations to reflect priority for shared collections and reductions in campus deposits. Revisit historical campus deposit allocation proportions in light of prospective plans for the RLFs.

8. Conduct focused, cost effective retrospective de-duplication project in the journals and government documents areas. Work with CDC and the Government Information Librarians bibliographer group to identify potential cost effective projects to withdraw print in coordination with digitization.