

University of California Libraries Shared Services Assessment

Prepared for May 7, 2012, SLASIAC Meeting
May 1, 2012

In December 11, 2011, the University of California Systemwide Library and Information Advisory Committee issued its Library Planning Task Force Report (LPTF). The Report contained a variety of recommendations with respect to UC Libraries and library planning structures. One of these called for the Council of University Librarians (CoUL) to undertake “regular and systematic assessment of the operations and finances of the entire portfolio of [shared] library services.” The Task Force report commented that,

“It is evident that the University’s emerging planning and budgeting environment will involve some new formalities, a greater need for detailed planning, financial and programmatic analysis and assessment, and closer coordination among the groups involved in the organizational framework. The Task Force concurs that responsibility for systemwide library planning rests with the Council of University Librarians, which should be provided with resources to marshal the library, analytical and financial expertise required to successfully meet the planning charge. Initially, the CoUL will focus on developing the methodology for the periodic review of the service portfolio, and thereafter manage and support the reporting process.”

As noted in the report, the Universities’ current financial environment has increased the need for the Libraries to provide data on the success of their shared endeavors.

“The shift of UCOP budgeting from a central allocation model to the Funding Flows model of a flat tax on campus funds means that

- *“Systemwide funds,” including budgets currently allocated to existing shared services, will increasingly be derived from and justified in terms of the systemwide assessment on campus budgets.*
- *Complete transparency in budgeting and decision-making is a foundational requirement for systemwide and shared services that use Funding Flows dollars.*
- *Campuses, particularly through COVC, will have much greater input into decisions related to UCOP investments in shared services.*
- *Analysis at the program/service level is likely required in order to set and justify the “tax rate.”*
- *It follows that where existing systemwide/shared services are financed with Funding Flows dollars, transparency and communication requirements demand regular and formal assessment of the operations and finances of those services.”*

In the new fiscal environment, campuses may well question the need to contribute to shared services. They may decide that they would prefer to retain their funds rather than contribute to services, including library services, provided at the Office of the President. Even distributed shared services that rely on contributions from the campuses may be questioned; many of the libraries’ shared services require contributions in terms of staff time, if not in dollars, from each of the campus libraries. At a minimum, therefore, the new funding model makes it imperative for the Libraries to be able to clearly document the beneficial effects derived from collaboration, particularly those that require significant investments of local staff time and/or centralized facilities or administration.

The Task Force directed CoUL to prepare an initial assessment of the current portfolio of shared library services by the spring of 2012. In response to that charge, the current report summarizes progress on *CoUL Plans and Priorities*¹ and provides a preliminary analysis of those areas in which further methodologies for assessment may need to be developed to provide the desired level of accountability.² As will be evident from this report, the UC Libraries are continuing to leverage their collective resources to achieve the major goals outlined in the LPTF report: 1) Acquire and preserve digital resources, 2) Coordinate collection development and acquisition, creating efficiencies and reducing redundancy, and 3) Maximize the use of existing space by reducing unnecessary duplication in collections. However, additional metrics will be required to achieve the desired level of accountability.

I. Acquire and preserve digital resources

Current Programs and Services:

Even before the founding of the California Digital Library in the 1990's, the UC Libraries were collectively moving to create a digital collection. The Libraries realized very early in the shift from print to electronic resources that they could achieve substantial economies of scale by working together to license needed resources. Subsequently, it became apparent that in order to fulfill one of the important missions of research libraries, to preserve the scholarly record, means needed also to be found to collectively preserve the electronic content UC had acquired. In addition, the libraries recognized that the move to digitally created files had placed much of the unpublished information created by UC students and faculty at risk with respect to long term preservation. So while initial efforts concentrated primarily on licensing electronic resources available from established publishers, more recent efforts have focused on acquiring and preserving content created by University faculty and students. Current programs include:

- a. Multi campus licenses to over 34,500 electronic journals and databases and 508,000 electronic books, avoiding close to \$6 million in subscription fees in 2012. Subscription needs are determined by a joint CDL/campus library task force; licenses are negotiated by the CDL in consultation with campus libraries.
- b. On-going contributions to the HathiTrust. The Trust began in 2008 as a collaboration of the thirteen universities of the Committee on Institutional Cooperation, the University of California system, and the University of Virginia. The goal of the Trust, now with more than 60 partners, is to establish a repository to archive and share members' digitized collections. HathiTrust aims to build a comprehensive archive of published literature from around the world, and to develop shared strategies for managing and developing members' digital and print holdings in a collaborative manner. The Trust provides secure, reliable, long-term preservation for deposited materials. To date the University of California Libraries have contributed 3,292,163 digital volumes to the Trust, and remains one of its largest contributors, accounting for 33% of the content. Two members of CoUL, Brian Schottlaender (UCSD) and Laine Farley (CDL), are on the Trust's Governing Board.
- c. The Web Archiving Service (WAS) hosted at the CDL, which captures and preserves critical web sites to ensure lasting access to web content. WAS provides tools for librarians and scholars to capture content as well. To date WAS has 47 public archives and 19 partners. Over 3000 websites have been archived, with a total of over 400 million documents on topics ranging from California wildfires to tobacco control.

¹ UC Libraries Systemwide Plan & Priorities, FY 2012-2015

http://libraries.universityofcalifornia.edu/about/vision_mission_goals.html

² Appendix 1 provides a complete list of the initiatives outlined in this report

d. The Merritt Digital Repository, a comprehensive repository service that allows UC users to manage, archive, and share digital content easily. Hosted at CDL, Merritt also provides:

a. A preservation repository for Electronic Theses and Dissertations (ETDs). If desired, these materials can be displayed in the University of California's eScholarship institutional repository. To date, the repository has over 3500 ETDs, representing deposits from UCI, UCSD, UCM, and UCSF. UC Merced and UCSD provide access to their dissertations through eScholarship.

b. Tools to make it possible for University of California researchers to manage, curate, share and preserve data sets.

e. eScholarship, which provides a suite of open access, scholarly publishing services and research tools that enable departments, research units, publishing programs, and individual scholars associated with the University of California to have direct control over the creation and dissemination of the full range of their scholarship. Over 45,000 documents have been deposited in eScholarship and there have been more than 14 million publication views since 2002.

New Initiatives

1. CoUL has charged a small team to proceed with the creation of a University of California Digital Collection. The team, which is just beginning its work, is charged to select and implement a systemwide Digital Asset Management System (DAMS) for the seven UC campus libraries that do not yet have such a system in place; select and implement a discovery and display system capable of showcasing the richness of the UC Library Digital Collection; aggregate existing UC Library digital assets, from all campuses, into a UC Library Digital Collection for purposes of discovery and display; aggregate existing UC Library digital assets, from all campuses, into the Merritt Repository for purposes of long term preservation; and establish a UC Library Digital Collection Service designed to support and manage the resources and processes relative to the UC Library Digital Collection. The task force is currently gathering requirements for a system-wide Digital Assets Management System (DAMS) with discovery and display options and developing an aggregation strategy.

2. A task force is currently comparing the costs and benefits of various approaches to increasing collective access to e-books. Details on this initiative are provided in section III, below.

Assessment needs

Table 1 illustrates the current state of assessment for shared services devoted to either acquiring and/or preserving digital resources. As can be seen, with the exception of the nascent UC Digital Collection, metrics are available to measure the volume of activity for each of these services. Web archiving, eScholarship, and electronic theses and dissertations also have measures that can be used to demonstrate success in terms of participation in these services by the campus community. Multi-campus licensing efforts have metrics that can be used to evaluate the savings provided by this service and its value to the user community.

Table 1. Existing metrics for shared services to acquire and preserve digital resources

Shared Service	Metrics to measure volume of activity	Other metrics currently available
Multi campus licensing of electronic content	Number of active licenses Number of journals and books made accessible	Dollars saved compared to separate campus licenses Usage of electronic resources Number of campuses participating in, or dropping out, of contracts
HathiTrust Deposits	Number of items deposited	
Merritt	Amount of content, number of items, collections and contributors	
Web Archiving	Number of sites archived	Number of partners
ETDs	Number of theses	Number of campuses participating
eScholarship	Number of items deposited; number of publication views	Number of research units participating; number of journals
UC Digital Collection		Number of existing campus collections

To provide further accountability, it may be advisable to consider the following additional areas for regular assessment:

1. The effect of joint licensing efforts on access to information by UC faculty staff and students. Some preliminary data suggests that in addition to reducing subscription costs, the number of journal titles available to University of California faculty, staff and students have been significantly enhanced by these efforts.
2. The cost per use of services that might be provided by outside agencies at greater cost such as web archiving, ETDs and Merritt.
3. The success of the UC Library Digital Collection in meeting its goals to both extend access to content and to mitigate the need for campuses to invest in local digital management systems.
4. The success of the Libraries efforts to preserve their digital assets, as reflected in the proportion of UC digital assets in preservation repositories such as HathiTrust or Merritt.

II. Coordinate collection development and acquisition, creating efficiencies and reducing redundancy

Current Programs and Services

The use of automated library systems, which extends at least back to the early 1980's, allows libraries throughout the world to distribute the workload attached to acquiring library materials. By sharing cataloging records, libraries avoid the need to recreate records locally. UC libraries have been active participants in this arena, regularly contributing original cataloging to cooperative services such as OCLC

where they can be used (“copied”) by other libraries, including those in the UC system. Sharing responsibility for collection development presents more challenges than sharing cataloging records; however, UC Libraries have launched a number of projects over the years to share responsibility for collecting rare or expensive items. For example, in the early 1990’s, the University’s science libraries assigned “holder of record” responsibilities to particular libraries for expensive foreign titles, such as Russian translation journals. MELVYL has been an important element in efforts to coordinate collection development; not only does it make it easy for users to find holdings at all campus libraries, but it also helps to minimize duplication; bibliographers regularly use MELVYL to determine if a particular item they are considering for acquisition or deselection is already owned within the UC system. The systemwide structure set up to encourage library collaboration includes bibliographer groups in a number of disciplinary areas. Through these bibliographer groups, programs that minimize unnecessary collection duplication and maximize effective use of financial resources have been implemented. Patron initiated interlibrary loan has also helped UC libraries to make their collections available to faculty and students throughout the UC system.

Current initiatives include:

1. Cooperative cataloging arrangements between two or more campuses to cover cataloging of specialized materials. These agreements allow campuses that acquire relatively small amounts of such materials to avoid outsourcing cataloging, which often doubles the cost, to private individuals or firms. Examples include: catalogers at San Diego copy catalog compact discs for Santa Barbara; a cataloger at Riverside provides regular cataloging of Thai language materials for Santa Barbara and Berkeley; a cataloger at Berkeley cataloged German monographs for San Diego; and five campuses performed original cataloging for documents issued by 28 California agencies and distributed the records systemwide. In addition, all campuses contribute to the cost of a full-time cataloger for Chinese materials.
2. The Shared Cataloging Program, housed at the UC San Diego Library, which provides bibliographic records to other campuses for remote-access CDL-licensed materials and for designated open access electronic resources to the UC campuses.
3. The Joint Steering Committee on Shared Collections (JSC), which develops principles and rationale for the California Digital Library’s collection development and advises the CDL on sustainable budget and co-investment models for the University of California’s shared digital collections. The JSC is chaired by the Director of Collections at CDL and has five campus members.

New initiatives

In 2009, the Libraries began a concerted effort to look for other efficiencies in acquiring and processing materials, an effort called Next Generation Technical Services (NGTS). NGTS identified a number of promising initiatives, and teams are now working to implement the NGTS recommendations subsequently approved by CoUL, which call for:

1. Establishing a University of California shelf-ready contract for the UC Libraries. “Shelf-ready” services provide materials to libraries with cataloging and classification already in place. Five UC campuses are already using shelf-ready services for some portion of their acquisitions. A small group has been charged to determine if a systemwide contract could allow UC libraries to obtain a discount for services and/or higher vendor service standards for speed of processing and services delivered. A recently published study puts the savings in labor attached to shelf ready processing at 5.7% of the cost of

processing an approval book; this same study estimates that books processed shelf ready reach the shelves 17 days earlier than their traditionally processed counterparts.

2. Defining and implementing a “good enough” record standard for original cataloging, based on the needs of selectors and users. Full records would still be provided for the vast majority of library materials. However there are substantial cataloging backlogs in UC Libraries, and this project is designed to find a way to reduce those backlogs without adding additional staffing, thereby making more material in UC collections accessible to users even in a time of budgetary stringencies. A group is currently identifying the costs and benefits of using such a record; one possibility under consideration is the BIBCO Standard Record developed by the Library of Congress. A recent study on use of a similar record conducted at the University of Washington showed a 26% reduction in cataloging time when this record was used.

3. Accelerating the processing of archival and manuscript collection to eliminate current backlogs in this area. The UC Libraries plan to implement a system called the Archivists Toolkit as well as to develop a manual of best practices. The goal, based on previous studies using the proposed procedures, is to process collections at four hours/linear foot. Achieving this goal would halve the time needed to process many campus backlogs, currently estimated at from .2 to 23 years. A small team is developing a plan for required training and infrastructure to move this forward. The team is also charged to develop an assessment plan.

4. Establishing systemwide Collections Service Centers, which support collaborative cataloging/processing for UC collections. As noted above, the UC Libraries already have some of these arrangements in place, including a shared Chinese Cataloger and the Shared Cataloging Program. The goal of this initiative is to provide a wider range of options including selection, licensing, acquisitions, cataloging, preservation, digitization, etc. on behalf of the UC system. The group currently working on this initiative plans to establish pilot projects and standards for such centers, asking campuses to self-identify for the projects.

5. Transforming collection development practices by reviewing current cooperative activities (as described above) and defining new roles for bibliographers. It is expected that the need to share cataloging expertise will only grow with the advent of more shared licensing arrangements and the decline in staffing budgets. Roles such as shared bibliographers and shared licensing experts will be required to function in this environment. A team is working to define these roles and, longer term, to develop an assessment to determine the effectiveness of UC coordinated and shared collection development policies and practices.

6. In addition to the above, CoUL is studying a proposal to create an ongoing mechanism to identify and fund collaborative initiatives. Currently these initiatives, which extend beyond those mentioned here to services such as preservation microfilming, UC-eLinks, courier services for interlibrary loan materials, and a host of other items, are funded in a variety of ways. Often they are organized and identified at the campus rather than the systemwide (CoUL) level. A proposal is before CoUL that would allow them to formalize the process and determine which activities should be collaboratively funded.

Assessment Needs

Not all of the new initiatives described above have measurable outcomes; initiatives to identify collection service centers, describe new roles for bibliographers, and establish ongoing funding

mechanisms are still in a very formative stage. Once concrete plans have been developed, metrics should be created to measure the effectiveness of the resultant programs; for example, once pilot projects for service centers are identified, the output and cost savings of each service center should be tracked. Others of the above new initiatives are more defined, but as they also are still in the planning stages, few, if any, usable metrics are available. As shown in Table 2, most of the Task Forces will be developing metrics as part of their charge. The shelf ready, minimum record and archives processing projects have also been charged to include, with a timeline due in spring 2012, a “proposed definition of success criteria; should be specific, measurable and achievable.”

Table 2. Existing or anticipated metrics for coordinating collection development and acquisitions.

Shared Service	Metrics available or expected
Shared Cataloging Program	Number of items cataloged Access points (links) provided
Joint Steering Committee	See Multi-campus licensing in Table 1
Cooperative cataloging (cataloging of material for one campus by another)	Individual projects may have metrics. None overall
Shelf-ready project	Charge: “Plan for assessing service (to include quantifiable criteria) and effectiveness of UC consortial shelf-ready project.”
Minimum record project	Charge: “Discussion paper on the benefits and losses to UC”
Archives processing improvement	Charge: “Develop assessment plan for testing the effectiveness ofprocessing methods.”

To provide further accountability, it may be advisable to consider the following additional areas for regular assessment:

1. The overall success of the new initiatives in terms of reducing costs and increasing efficiencies. While the task forces have been charged to evaluate potential cost savings, actual cost savings will depend on participation rates. For example, the cost savings and/or reduction in processing times that result from using a “good enough” record will depend on how many items are cataloged using such a record. Some baseline data has been collected; the current use of “shelf-ready” cataloging is available as is the number of items currently in UC library cataloging backlogs. It would be advisable to identify and fill in gaps in existing baseline data now, and to develop plans to track participation rates going forward, so that an analysis of overall success can be made at a later date.
2. An assessment of the effects of these new initiatives on access to the University Libraries’ collections. As noted, several of the Task Forces involved with these initiatives are charged to enumerate the costs and benefits to users of the efficiencies proposed. However, an actual assessment of the effect of these developments on access to materials is beyond the scope of the small groups charged to move these efforts forward.

III. Maximize the use of existing space by reducing unnecessary duplication in collections

As noted in the LPTF report, the two Regional Library Facilities are approaching capacity and existing campus library facilities will run out of space for new materials over the next 5-7 years (some are already at capacity). Lack of stack space in libraries is, of course, a perennial problem; the UC Libraries have been withdrawing duplicate materials in lieu of depositing them in the Regional Library Facilities for many years, and several campuses currently lease off-campus space to house collections. However, the absence of funds to create or lease new buildings to house collections has increased the sense of urgency to find ways to reduce the space required to store library materials and still insure continued availability of items needed by faculty and students. Fortunately, UC's rich collections contain many duplicate copies, some of which are of rarely used material or material now available electronically. The Libraries have therefore embarked on a variety of initiatives focused on establishing archival copies of print media now also available in electronic format, so that UC Libraries can deselect older duplicate volumes and still be assured of access to print should it be required. Newer initiatives focus on obviating the need to purchase duplicates of the same title throughout the 10 campus libraries.

Current Projects

1. The UC Libraries are contributing volumes to WEST, a project of twenty-two libraries in the western United States. WEST has identified titles of important journals which are also available in electronic format and widely duplicated among participants. The goal of the WEST project is to create an archival print copy of these titles at one of the participating libraries, thus obviating the need for other participants to retain their own older print volumes. The University of California savings, if volumes are withdrawn, is conservatively estimated at 60,640 ASF over 5 years or 1.5 years of UC Library stack space over 7 years. These figures assume that UC would also retain an additional copy of each title in WEST on a campus or in an RLF.

2. The UC Libraries have been contributing to the JSTOR paper repository project for over five years. JSTOR includes over one thousand leading academic electronic journals across the humanities, social sciences, and sciences, as well as select monographs and other materials valuable for academic work. The paper repository project began in 2004 and its intent is to create an archival print copy of all titles that are part of JSTOR. Archives are housed at the Southern Regional Library Facility and Harvard University Libraries. As of July 2011, the SRLF had validated over thirty million pages in JSTOR titles and compiled a print archive of over 57,000 volumes. As with WEST, the intent of this project is to allow campuses to deselect older print runs of these titles, because they know that a print copy is archived and, if needed, accessible to users. No current estimate exists of stack space that could be saved if duplicate volumes currently held in UC campus libraries were deselected; however there is clearly opportunity for savings as UC currently has print subscriptions to over 2000 JSTOR titles. Some campuses have launched their own projects to deselect JSTOR titles, but since these have not been coordinated on a systemwide level, there are no statistics to document space savings.

3. In 2004, as part of some systemwide electronic journal licenses, the University of California began regularly receiving, at no or very low cost, one print copy of titles also provided to all campuses in electronic format. These titles are held at the Regional Library Facility, providing an ongoing print archive for close to 4000 electronic journals, and allowing campuses to deselect these titles if they wish, knowing that a print archive exists.

New Initiatives

1. The Shared Print in Place program establishes collections of physical resources developed in full-service libraries that will be acquired and/or managed cooperatively; policies and procedures governing access, retention and persistence of these collections are explicitly formalized to ensure inter-institutional dependencies. The initial project in this program is one to share responsibility for acquiring monographic series. One campus volunteers to receive all volumes in the series, allowing other campuses to select only occasional volumes to meet campus needs. Currently thirteen series have been placed in this program.

2. Systemwide access to electronic books offers another avenue to reduce space needs for campus libraries. In 2008 - 2010, the UC campuses conducted a pilot project with Springer in which they obtained perpetual access to nearly every Springer Science + Business Media eBook published in English from 2005 to 2010. The collection included 24,000+ books from every scientific discipline and many social sciences. 2011 e-Books were purchased after the pilot. The pilot included a detailed assessment phase to evaluate the success of the pilot in the areas of collection development, technical services, and user experience. Final analysis of the results of that report will be forthcoming shortly; however preliminary results suggest substantial savings in terms of print books not purchased and concomitant reductions in the need for duplicative cataloging.

3. Currently a small task force is studying various options for licensing electronic books. The task force is charged to recommend principles to guide decision-making as to when to prefer systemwide acquisition of e-books through publisher packages, when to prefer a profile-driven model and when to prefer a patron-selection model. They will also recommend models for sharing consortially-acquired e-books which can be used in future negotiations with publishers for the systemwide acquisition of e-books.

Assessment Needs

Table 3 shows the existing metrics being collected for projects that could save space and/or reduce unnecessary duplication among the UC Library collections. While these metrics track progress in various ways, none of them can currently be used to determine the effectiveness of these programs at maximizing existing space.

Table 3. Shared strategies to maximize existing space

Shared Service	Existing measures
WEST	Potential space savings from deposit
JSTOR Repository	Volumes in the SRLF archive
Archived print issues of electronic journals	Number of titles with issues in the Regional Library Facilities
Shared print in place	Task Force charged to "Develop an assessment component to determine the effectiveness of UC coordinated and shared collection development policies.... Include metrics (measures) that show impact of UC

	coordinated collections...”
Electronic book licenses	Several implemented as part of the Springer Pilot Project could be extended to future licenses.

To provide further accountability, it may be advisable to consider the following additional areas for regular assessment:

1. The effectiveness of the JSTOR, West and SRLF journal issue programs in reducing space needs could be tracked by systematically collecting data on the number of volumes deselected in favor of archival copies.
2. The effectiveness of electronic book licenses programs could be tracked by measuring the concomitant reduction in print books not purchased. Several campuses are engaged in pilots of patron-driven Ebook acquisition; these pilots may also provide suggested metrics for use by CoUL to judge the effectiveness of systemwide patron driven acquisition programs.
3. Collaborative programs involving multiple bibliographers are among the most costly, in terms of staff time, for libraries to support. The cost effectiveness of the Shared Print in Place program could be measured by conducting a one-time study to estimate the amount of bibliographer time that needs to be devoted to coordinating and maintaining such programs, and then comparing those costs to savings from reduced duplication.

Selecting metrics

This initial assessment of the Libraries’ portfolio of shared services has shown that the UC Libraries have multiple shared services already in place that will meet the goals of the SLPTF report; a number of additional initiatives are in the planning stages. All of the Libraries’ existing initiatives have metrics that can be used to track output, and many of the new initiatives are expected to provide metrics as part of their planning process. However, the report identifies a number of additional metrics, for both existing and planned programs, which may be needed to establish that these projects are, in fact, meeting their stated goals. Collecting the data needed to establish the efficacy of many of these projects will not, necessarily be a straightforward task. There are many variables that affect the cost and speed of library processes, the libraries’ ability to acquire and preserve data, and the space occupied by library materials. The presence of so many variables makes it difficult to attribute reductions in cost, increases in efficiency, or changes in user access, to any particular initiative. At the same time, it is important to acknowledge that assessment itself is not cost neutral; individuals must devote staff time to collecting, reporting and analyzing the required data. Given the complexities of the environment and the cost of assessment, the Libraries will now need to establish priorities for additional metrics, including those suggested here, based on perceived needs for accountability and the cost to provide the data required.

Appendix One

Initiatives to acquire and preserve digital resources

Initiative	Focus	Source material
Consortial licensing	Access	Published material
HathiTrust	Preservation (future access)	Published material
Web Archiving Service	Preservation	Published material
Merritt Digital Repository	Preservation	Locally owned materials
University of California Digital Collection	Access & Preservation	Locally owned materials

Initiatives to coordinate collection development and acquisition

Sharing Processes
Create a minimum standard record
Reduce archival backlogs
Create a process to fund initiatives
Sharing People
Expand cooperative cataloging
Define new bibliographer roles
Establish collection centers
Joint negotiations
Cooperatively license electronic content
Negotiate a systemwide “shelf ready” contract

Initiatives to maximize the use of existing space

Focus on reducing existing duplication
JSTOR
WEST
SRLF holds print issues of electronic journals licensed systemwide
Focus on reducing future duplication
Shared print in place
Systemwide licenses for electronic books
Patron driven acquisitions