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Every year, a theme seems to emerge that characterizes CDL's work during the academic calendar. This year is no exception, where we saw a progressive maturation of CDL services grounded in a deepened understanding of the needs of UC campus libraries and researchers. Complementing these developments were projects of exploration and formal research that added further depth to CDL’s efforts, laying the foundation for ongoing service evolution.

Over the past year, the UC Open Access policy implementation moved forward with the launch of a new publication management system at the first three campuses, with others ready to follow by the end of 2015. The WEST collaboration to ensure the long term availability of print journals, a project for which CDL serves as the administrative host, continued into new archiving phases and embarked upon a business model that is independent of grant funding. And the UC Libraries Digital Collection project, which is built upon the long standing Online Archive of California and Calisphere, launched several new services. With these and other 2014-2015 projects, the underlying functions of registering, managing, harvesting and providing access to digital content have now been disaggregated into a more flexible and responsive suite of services so that libraries can use whatever fits their situation.

On the research front, the focus shifted to implications for researchers and libraries of several major trends that are reshaping scholarly communication, including Gold Open Access and how it might be sustained, and data as a legitimate research output worthy of peer review, publication and citation. CDL staff also participated in user studies, primarily of librarians and archivists, around how a cooperative program for creating archival descriptions might work as part of future planning for the Social Networks and Archival Context (SNAC) project. Again, these efforts seek to deepen and enrich our understanding through research into attitudes and future service implications.

As I write my final preface to the Annual Report, I am pleased to note the productivity and creativity that has been a hallmark of CDL during its first two decades. As an organization, it occupies a unique place between the local expertise and priorities of campus libraries, the systemwide view of what can be leveraged and expanded, and a link to the broader library and higher education environment where emerging directions take shape. The coming year will bring new leadership and many opportunities to continue CDL’s collaborative impact at UCOP, the UC system, regionally, nationally and internationally.

Laine Farley
Executive Director
California Digital Library
SUPPORTING THE UC OPEN ACCESS POLICY

The Launch of the UC Publication Management System

THE GOAL: Manage the building blocks and products of scholarship and research, including content created by UC scholars

CDL RESPONDS: Support the implementation of the UC Open Access Policy with the launch of the UC Publication Management System

2014-2015 Accomplishments

The California Digital Library, in partnership with the UC Office of Scholarly Communication and campus libraries, began the process of developing infrastructure to support the implementation of the UC Academic Senate Open Access Policy following the adoption of that policy on July 24, 2013.

Early infrastructure included a manual deposit mechanism, a waiver and embargo generator, and policy support materials made available on the Office of Scholarly Communication website. The primary goal of this first phase implementation of the OA Policy was to provide Senate faculty at all ten UC campuses with a means of complying with the policy by depositing their articles in eScholarship (UC’s open access repository) and opting out of the policy for individual articles, should circumstances require it.

2014-2015 witnessed the completion of the second-phase technical implementation of the UC Open Access Policy. Phase 2 marks a transition from manual metadata collection/deposit tools to a robust Publication Management System (Symplectic Elements) with the ability to automate much of the work of compliance on behalf of the faculty. CDL has launched the system at three campuses (UCLA, UCI, and UCSF) and it is slated to go live at the remaining campuses by January 2016. All deposited publications are automatically transferred into eScholarship, UC’s open access repository, where they are made freely available to readers worldwide, and benefit from long-term access and preservation strategies.

The launch of the Publication Management System has dramatically increased faculty participation, but there is still a gap between claiming and depositing behavior that CDL is working to understand and improve. In the midst of rolling out the Publication Management System, we established relationships with the groups that manage faculty information systems on the pilot campuses in the hopes of building toward a more integrated model of faculty publication tracking and thus realizing efficiencies for the faculty in their reporting activities.

In addition to completing the launch and integration of the UC Publication Management System across the ten-campus system, in 2015-2016 the CDL will work closely with a Library Partners Group and an eScholarship Users Group to conduct a redesign of the eScholarship web interface. The redesign will ensure that the service remains relevant and compelling for a growing community of users.

EXPLORE UC OPEN ACCESS POLICY RESOURCES

CDL and the UC Office of Scholarly Communication

The UC Office of Scholarly Communication (OSC) focuses on monitoring significant developments in scholarly communication, with a focus on implications for the UC academic community.

OSC coordinates and provides central access to a rich array of educational resources on the UC Open Access Policy, rights management, state and national legislation, emerging publishing and distribution models, data publication, and the development of new value metrics.

OSC members include: CDL staff; UCI, UCLA and UCSF library staff; UC Press staff; and UCOLASC faculty representatives from UCSC and UCSD.
ENGAGING IN SCHOLARLY COMMUNICATION
The Emerging Role of Research Data

THE GOAL: Support scholars throughout the research life cycle and expand UC Libraries’ engagement in scholarly communication practices.

CDL RESPONDS: Researching and promoting incentives and tools for scholars to share their research data.

2014-2015 Accomplishments
There is growing recognition within the academic community of the importance of managing and sharing research data as a formal output of scholarly communication, but the cultural and curatorial practices needed to make that a reality are still at an early stage of development. Primary research and community-building efforts by CDL staff over the past year produced multiple publications that help articulate and promote incentives for researchers to share their data. These articles appeared in journals relevant to both the research and library communities, such as PLOS ONE, Scientific Data, and the inaugural issue of PeerJ Computer Science. They have been widely read and discussed, and cumulatively downloaded more than 1,600 times and viewed nearly 20,000 times.

Two papers, Researcher Perspectives on Publication and Peer Review of Data and Making Data Count, present the results of surveys of researcher attitudes conducted by the CDL. Both investigate what data publication features and metrics would be useful to persuade researchers that sharing data is a valuable and prestigious scholarly activity.

Funded in 2014 by the National Science Foundation Early Concept Grants for Exploratory Research (EAGER), Making Data Count is a collaborative project between the CDL, PLOS, and DataONE, designed to explore and test the data-level metrics used to capture activity surrounding research data. Outputs of the project have successfully defined and implemented a practical suite of metrics for evaluating the impact of datasets, a necessary prerequisite to widespread recognition of datasets as first class scholarly objects.

Data Publication Consensus and Controversies, comprehensively maps the current landscape of varied activities taking place under the umbrella term ‘data publication,’ taking pains to distinguish areas of broad consensus from points of ongoing contention.

A central theme running through all three papers is the role of formal data citation in ensuring that research is reproducible and that researchers who share data are credited for their work. The importance of data citation is already an area of strong consensus within the scholarly communication community, but implementation has proven difficult. Achieving Human and Machine Accessibility of Cited Data in Scholarly Publications, the output of an international working group including CDL staff, offers data repositories detailed technical guidance in making their data accessible and citable.

EXPLORE CDL SERVICES & PROGRAMS

Dash

Increasingly, researchers are being asked by funders, publishers, and their home institutions to proactively ensure management of data resulting from their research activities.

In late 2014, CDL’s UC Curation Center (UC3) launched the Dash development project, funded by a grant from the Alfred P. Sloan Foundation. Dash, a data repository service made available to UC researchers, provides open access to, and the long-term preservation of, research output.

Significant progress on the project has been made in 2014-2015, including: requirements gathering, the redesign of both the technical back-end and the web-based front-end, and the launch of the technical development phase.

The redesigned Dash service is expected to be released in the second quarter of 2016, and will host an array of enhancements, including support for geospatial data, integration with any standards-compliant repository, and an intuitive, easy-to-use interface.
OPTIMIZING SHARED LIBRARY SERVICES

Shared Print Activities

**THE GOAL:** Ensure retention of print journal backfiles for the future while optimizing use of campus library space

**CDL RESPONDS:** Manage UC Libraries’ efforts to form a network of distributed, shared print repositories of scholarly journal content

**2014-2015 Accomplishments**

A primary commitment of the UC Libraries is to preserve the scholarly record by effectively managing its print journal collections. CDL actively partners with the UC Libraries in meeting this goal through its management of UC Libraries’ Shared Print activities, and by serving as the administrative host for the Western Regional Storage Trust (WEST) program. CDL staff provide leadership and hold positions as WEST Program Manager and WEST Collections Analyst, as well as serving on the WEST Executive Committee and WEST Operations and Collections Council.

In 2015, JSTOR and UC Libraries celebrated the ten year anniversary of the UC JSTOR Shared Print Archive with staff at the UC Southern Regional Library Facility (SRLF). The UC JSTOR Archive is one of two page-verified archives in the nation. It not only serves an essential preservation function, but has also catalyzed the development of other programs, including WEST. This year, UC and JSTOR completed the last phase of page-verification for the archive and will transition future development to UC.

In 2014-2015, UC and WEST libraries made significant investments in decision-support tools and metadata standards to improve and extend collaboration around print journal collections management. The UC Libraries adopted a Disclosure Standard for Shared Print Journals to support discovery, resource-sharing and analysis of UC’s shared journal collections. The standard allows better coordination of UC’s archiving activities with other research libraries.

UC and WEST libraries also completed development of the AGUA Information Center, a decision-support system which helps streamline group decisions about “what to archive next?” among the thousands of unarchived journal titles in a region. The system provides a dashboard for a collections analyst to iterate regional selection criteria, produce proposals of title lists for retention for distribution to more than 30 WEST Archive Holders based on the depth of their holdings, and capture local decisions to commit to retain titles. The AGUA system was developed by the CDL Discovery and Delivery Team, in collaboration with WEST’s project team and governance committees.

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**Research Libraries and Shared Print Programs**

*In late 2014, Emily Stambaugh (UC Libraries’ Shared Print Manager) and Rebecca Crist of the CIC’s Center for Library Initiatives, published ARL SPEC Kit 345: Shared Print Programs.*

The Shared Print Programs SPEC Kit explores the ecology of print retention in networks of academic and research libraries. The study explores participation of the Association of Research Libraries (ARL) and other libraries in shared print programs, current and planned investments in these programs, expressed benefits of participation and changing contexts of collaborative (print) collection management.

The study also investigates emerging “above the consortium” relationships for print collection management, characteristics of shared print programs, the nature of collections retained, and long-term use cases for print.
ENRICHING THE SYSTEMWIDE LIBRARY COLLECTION

Building the UC Libraries Ebook Portfolio

THE GOAL: Ensure the best value for licensed ebook content through a range of assessment, policy and licensing activities

CDL Responds: Conduct a value analysis of UC’s systemwide ebook purchases

2014-2015 Accomplishments
Integrating ebooks into the UC Libraries’ systemwide content portfolio has been a major focus at CDL over the past several years, and significant progress was made in 2014-2015 in assessing the value and savings associated with ebook purchases.

Licensing ebooks is particularly challenging for a number of reasons. Although users value access to ebooks, print monographs are still important in many disciplines, leading to concerns about duplicative purchasing. Ebooks involve new workflows and business models for both libraries and publishers, and knowing whether a given title will be published electronically and whether it will be included in a publisher’s ebook package is far from straightforward. In addition, standard lending practices such as interlibrary loan and other broad usage rights that users expect can be difficult to negotiate for this material. Finally, libraries remain concerned about becoming ‘locked in’ to ebook packages, as has become common for licensed scholarly journals.

Despite the associated complexities, CDL and the UC campuses have built an impressive ebook portfolio, with well over 55,000 ebooks primarily in science, technology and medicine (STM) focused packages available systemwide as of FY 2014-2015. However, demonstrating value is an important part of sustaining these purchases.

This year, CDL conducted a value analysis of UC’s systemwide ebook purchases to assess whether these collections are providing good value. Our analysis showed impressive savings of $7.4 million over three years compared with purchasing this same content locally in print (based on an average of between 3-4 copies typically purchased across the campuses at industry average print prices), plus an added value of $23.8 million in additional access at the remaining campuses, for a three-year combined savings and added value of $31 million. Additionally, usage analysis shows that ebooks in many fields are heavily used when they are available online: STM ebooks were used a whopping 4.3 million times in 2014, at an average cost per use of $0.50. Although our ebook collections offer demonstrable value, campus funds available for ebook purchases remain constrained by budget challenges. CDL funded 32% of the cost of major ebook contracts in 2013-2015, at a total cost of $1.7 million.

Complementing these STM packages, a ‘demand-driven acquisitions’ (DDA) pilot for ebooks from university presses is now in its second year. In this model, large numbers of ebooks are disclosed in campus catalogs for limited browsing; targeted purchases are made only after a defined number of uses (page views or downloads) by library users. The DDA model has proven very successful in controlling costs for lesser-used material while providing access to a wide variety of scholarly content.

EXPLORE CDL SERVICES & PROGRAMS
Pay It Forward: Modeling the Cost of Gold Open Access at UC
Pay It Forward is a joint project of CDL and UC Davis designed to study the impact of an ‘author pays’ open access model on large North American research intensive universities.

A collaboration among four major research libraries (Harvard, Ohio State, the University of British Columbia, and the University of California) the project’s goal is to determine whether immediate open access of journal articles funded via Article Processing Charges (APCs) can be financially viable for UC and other large research institutions that publish the lion’s share of academic research.

The study, generously funded by the Andrew W. Mellon Foundation and launched in 2015, runs through June 2016.
EXPANDING ACCESS TO UNIQUE DIGITAL COLLECTIONS
Providing Access to Unique and Historical Digital Resources

THE GOAL: Enrich the UC systemwide digital library collection by exposing previously hidden collections

CDL RESPONDS: Improve and expand the UC Libraries Digital Collection (UCLDC)

2014-2015 Accomplishments
Providing access to the treasure trove of unique and historical digital resources created, owned, and maintained by the University of California Libraries is a central goal of the CDL. In partnership with the 10 campus libraries, the CDL-based UC Libraries Digital Collection (UCLDC) project team made significant progress on three primary objectives defined by the UC Council of University Librarians for 2014-2015.

In June 2014, CDL's UCLDC project team achieved a major accomplishment with its successful launch of a shared digital asset management system (DAMS), used by six campus libraries. The shared DAMS is just one component of the overarching UCLDC platform. The platform's modular architecture allows UC Libraries to employ only those components that meet their local needs; for example, libraries with their own digital platforms can seamlessly contribute content to the UC Libraries Digital Collection and have it displayed via the Calisphere gateway website.

The project team achieved the second objective by continuing to aggregate content from libraries, archives, and museums throughout the UC system and across the state. This content includes approximately 50 collections that were previously unavailable online from campus libraries at Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, and Santa Barbara.

In June 2015, the UCLDC team accomplished the third objective and announced the soft launch of the new Calisphere public access interface. The Calisphere BETA site aggregates more than 400,000 digital photographs, maps, diaries, letters, drawings, newspapers, oral histories, sound recordings, moving images, and other formats. All told, it includes all of the existing content from the old Calisphere site, plus 70% more digital items.

In addition to increased access to UC collections, the redesigned Calisphere site presents a clean modern look, user-centered design, and a slew of great new features for the many scholars, students, genealogists, and others who visit Calisphere for their research activities. The project will continue throughout 2015-2016 with the goal of incorporating even more collections and functionality.
CDL FUNDING
2014-2015

CDL PROGRAM EXPENDITURES 2014-2015
CDL has an annual budget of approximately $19.7M from the campus assessment fund, including $1M from the state lottery fund, plus $1.75M from grants, fee-for service or other restricted funds. The chart below shows CDL expenditures by program from unrestricted funds.

CDL PROJECTS WITH RESTRICTED FUNDING 2014-2015
The chart below depicts CDL projects with restricted funding, broken down by unrestricted funds, restricted funds (grants), and fee-for services (cost recovery).
Among other responsibilities, SLASIAC is charged to “develop policies and strategic priorities for the California Digital Library including policies that support the extension of CDL services beyond the University.”

libraries.universityofcalifornia.edu/slasiac

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MEMBER ORGANIZATIONS

Coalition for Networked Information (CNI)
Coalition of Open Access Policy Institutions (COAPI, SPARC)
Council on Library and Information Resources (CLIR)
Counting Online Usage of Networked Electronic Resources (COUNTER)
CrossRef
DataCite
Digital Library Federation (DLF)
Digital Public Library of America (DPLA)
Digital Preservation Network (DPN)
HathiTrust
International Coalition of Library Consortia (ICOLC)
International Internet Preservation Consortium (IIPC)
Library Publishing Coalition
National Digital Stewardship Alliance (NDSA)
National Information Standards Organization (NISO)
OCLC Research Library Partnership
Open Researcher and Contributor ID (ORCID)
Preservation and Archiving Special Interest Group (PASIG)
Public Knowledge Project (PKP)
SHARE
Scholarly Publishing and Academic Resources Coalition (SPARC)
Western Regional Storage Trust (WEST)

PARTNERS / SERVICE AREA

CERN (SCOAP3)
Center for Research Libraries (CRL) (WEST, PAPR)
DataOne (NSF DataNet, DMPTool, Merritt Repository)
Data Curation Centre (DMPTool, data curation)
EDUCOPIA (Scholarly publishing)
FORCE11 (Scholarly publishing)
Information Center for the Environment (ICE), University of California, Davis (DataONE)
Internet Archive (Web Archiving Service)
Lulu (eScholarship PLUS)
Moorea Biocode Project (DataONE)
OCLC (Melvyl, VDX)
Office of Scientific and Technical Information (OSTI), Department of Energy (DMPTool)
Portico (JHOVE2)
Purdue University Libraries (DMPTool)
Public Knowledge Project (eScholarship)
Research Data Alliance (RDA) (Data curation)
San Diego Supercomputer Center (SDSC) (Merritt Repository)
Smithsonian Institution (DMPTool)
Stanford University Library (JHOVE2)
Symplectic (eScholarship, UC Open Access Policy)
U.S. Geological Survey (USGS) (DataONE)
UC Berkeley School of Information (SNAC)
UC Berkeley's Richard B. Gump South Pacific Research Station (Merritt Repository)
UC Press (Scholarly publishing)
University of Virginia, Institute for Advanced Technology in the Humanities (SNAC)
University of Virginia Library (DMPTool)
University of Illinois at Urbana-Champaign Library (DMPTool)
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Member, HathiTrust Program Steering Committee
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Member, bioCADDIE Data Identifiers Recommendation Working Group (2) Member, NSF Identifier Services Advisory Board
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