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# DIRECTOR'S REPORT



Reflections on the year 2013-2014 coalesce on two main areas. First, CDL continued to develop and refine its portfolio of services at a remarkable pace, with seven major milestones or releases completed during the year: Zephir (a component of HathiTrust); UC Open Access Policy Implementation; Web Archiving Service interface update and new curator tools; DMPTool, version 2; DataShare at UCSF and the beginning of Dash for other campuses; UC Libraries Digital Collection major milestones; and Social Networks and Archival Context (SNAC), version 2. In addition, we negotiated two major licensing agreements, Elsevier and SAGE, with excellent cost control, and shaped the innovative SCOAP3 initiative, described later in this report.

Second, we conducted a number of exploratory projects to inform our theme of "Scholars at the Center" to better understand the scholar's environment, changing research practices, and challenges. As a result, we defined four areas we will continue to investigate and start to shape services toward during the coming year: 1) understanding disciplinary differences; 2) investigating tools scholars use to "do it yourself" in managing their research process and determining whether to intersect with CDL services; 3) supporting new modes of getting credit for outputs of scholarly work such as research data; and 4) extending how scholars manage their scholarly identity and reputation such as various profile systems.

As this report will demonstrate, CDL's activities are very much in line with President Napolitano's mission of "Research for the World," both through supporting traditional forms of scholarly communication and increasingly through the open or public access movement. It continues to be a priority for CDL and UC libraries to make the raw materials of research openly available where feasible, from research data to primary resources. In addition, we continue to explore new models of disseminating research results for global impact, through our own services, national and international partnerships and sustainable business models.

Laine Farley

Executive Director

California Digital Library

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# Introduction

# EXPLORE CDL SERVICES & PROGRAMS

### **eScholarship Service**

The eScholarship service provides a suite of open access scholarly publishing services and research tools that enable UC departments, research units and individual scholars to have direct control over the creation and dissemination of their scholarship. eScholarship is also the University of California's repository destination for all research articles covered by the UC Open Access Policy. The service is managed by CDL's Access & Publishing Team and boasts the following:

Online views: 22 million+ Publications deposited: 73,000+ Participating research units: 324 Journals hosted: 69

### Introduction

A crucial component of the University of California's research mission, and by extension the California Digital Library's, is the diffusion of knowledge. For faculty, the publication of research findings in journals, books and other media is perhaps the most visible means of achieving this goal. For the CDL, active engagement in the development of new scholarly publication and funding models has been a primary focus over the past year.

In keeping with its strategic themes of "Explore, Advocate, Build, Connect," in 2013-2014 CDL established and made significant progress toward its goals relative to expanding global access to research:

### **EXPLORE**

Soal: Improve UC's understanding of open access publishing costs and sustainable business models via planning grants.

### **ADVOCATE**

Soal: Advocate for open access, open data, and open science by engaging in collaborative open access initiatives and by emphasizing open themes in outreach and communication.

### **BUILD**

**Goal:** Support the UC Open Access Policy by implementing a streamlined process for faculty to contribute publications to eScholarship, and establish a reporting mechanism for this process.

### **CONNECT**

**Goal:** Provide better coordination for advocacy, rights management information and expertise by establishing an Office of Scholarly Communication.

# Implementing the UC Open Access Policy

# THE NEED: Implementation of the UC Open Access Policy

The Academic Senate of the University of California adopted an Open Access Policy on July 24, 2013, ensuring that future scholarly articles authored by faculty at all 10 UC campuses will be made available to the public at no charge. Meeting the policy's "go-live" date of November 1, 2013 required the launch of an ambitious planning and implementation project.

# **CDL RESPONDS:** The Open Access Policy Implementation Project

### 2013-2014 Accomplishments

Following the adoption of the systemwide UC Open Access Policy by the UC Academic Senate, the California Digital Library, in partnership with campus libraries, created the following tools and services in support of the policy:

- Efficient manual process for deposit of journal articles into UC's eScholarship repository
- » Office of Scholarly Communication, including an OSC website with extensive educational materials about the policy and how faculty can participate
- » Open Access Policy Implementation wiki tracking the development of tools and services in support of the policy
- » Outreach materials for campus use
- » Waiver/Embargo generator
- » Purchase and implementation of an automatic publication harvesting system (expected launch date: Fall 2014)

Within CDL, the Access & Publishing Group assumed responsibility for leading the Open Access Policy Implementation Project. Throughout 2013-2014, the group consulted regularly with faculty, staff and librarians on the three pilot campuses (UCI, UCLA and UCSF) and well beyond via meetings with Academic Senate committees and campus presentations.

By redeploying existing CDL Access & Publishing Group staff, no new hires were required to meet the 2013-2014 demands of the Open Access Policy Implementation Project. The team will continue work throughout the 2014-2015 year, including extending the automatic publication harvesting system beyond the three pilot campuses to the entire UC ten campus system.



# MEET THE CALIFORNIA DIGITAL LIBRARY

"After UC's Academic Senate passed the Open Access Policy, the Access & Publishing Group partnered with campuses to imagine, and then implement, a system that will not only support the OA deposit requirements for the faculty, but also become a robust source of scholarly publishing information for the university."

### Kirk Hastings

Senior Developer
CDL Access & Publishing Group

# The Economics of New Publishing Models



# THE NEED: Evaluation of new scholarly publishing models

Authors who wish to publish their research in open access journals are sometimes asked for compensation by the publisher to recover routine publication costs. These fees, called Article Processing Charges (APCs), are intended to replace the revenue lost when publishers do not charge subscription or other fees for open access journals. APC-funded scholarship has become increasingly common as open access journals gain in popularity, but the implications of this publishing model remain largely unexplored.

# CDL RESPONDS: Explore the economic implications of the Article Processing Charge

### 2013-2014 Accomplishments

In November 2013, the UC Libraries undertook a planning grant to investigate the implications of the emerging Article Processing Charge (APC) publishing model. Funded by the Andrew W. Mellon Foundation, the project team included MacKenzie Smith, UC Davis University Librarian (Principal Investigator), Laine Farley, Executive Director of the California Digital Library (co-Principal Investigator), and Ivy Anderson, CDL Director of Collection Development and Management.

The final report of the initial planning project team, submitted in March 2014, outlines a proposal to investigate areas impacted by APCs, including:

- The overall cost to publish scholarly journals and the value of different components to editors and authors
- The cost to UC and similar large research institutions under a variety of rigorously-modeled scenarios
- » Reasonable financial models for publishing research that cover basic costs and ongoing innovation

The next stage of the UC Libraries inquiry is expected to commence in January 2015, subject to funding approval. The key question to be investigated is whether a large-scale conversion to open access scholarly journal publishing funded via APCs would be viable and financially sustainable for large research institutions such as the University of California.

# **International Scholarly Publishing Initiatives**



Many scholarly journals and books are still funded by the fees that individuals, libraries, and other organizations pay to access them. Recent decades have seen shifts from paper to electronic formats and from outright purchase to licensing fees, but the basic publishing models remain the same: the cost is borne by end users and their institutions.

# CDL RESPONDS: UC Libraries join the SCOAP3 partnership

### 2013-2014 Accomplishments

In January 2014, SCOAP3, the Sponsoring Consortium for Open Access Publishing in Particle Physics, became a reality. This ground-breaking initiative is making a large proportion of the formal literature in high energy physics openly accessible worldwide, through direct financial support of the peer review and publication process by libraries and funding agencies. The initiative has its organizational home at CERN, the European Organization for Nuclear Research located in Geneva, Switzerland.

The University of California Libraries have long supported the SCOAP3 initiative and in late 2013 confirmed participation in a formal memorandum of understanding between the California Digital Library and CERN, designating UC as a SCOAP3 Partner.

SCOAP3 relies on a unique funding model which utilizes the redirection of library licensing fees to fund article processing charges in participating journals, without requiring payments from individual authors. Due to the competitive structure of its bidding process, the average SCOAP3 Article Processing Charge (APC) is significantly lower than standard publisher APCs for comparable journals. Participating institutions – including UC – will be able to obtain a feed of SCOAP3 papers authored at their institutions for deposit into institutional repositories.

CDL's Director of Collection Development and Management, Ivy Anderson, was involved with SCOAP3 throughout its formative stages as a member of the Steering Committee and chair of the Technical Working Group, and currently serves on the Executive Committee and as Deputy Chair of the SCOAP3 Governing Council, which oversees the operation and further development of the initiative.



# MEET THE CALIFORNIA DIGITAL LIBRARY

"Finding sustainable open access models is critical to institutions such as UC, whose scholars and scientists publish a significant percentage of the world's research literature. CDL's involvement in SCOAP3 is helping us explore new financial models and ultimately shape the future of scholarly publication. It's a privilege to represent UC in this ground-breaking effort."

# Ivy Anderson

Director of Collection

Development and Management

CDL Collections Program

# Introduction



### Introduction

The topic of data – whether it's big data, research data, data management, or data curation – is ubiquitous in today's popular media. Essentially, data is everywhere. The classic field notebook, for centuries used by scientists and researchers to record their findings and observations, has transitioned to a digital format. Technological advances in data capture and access have resulted in an avalanche of information which must be managed, documented, retrieved, and preserved.

Many University of California researchers face a new challenge: major funders, including the National Institutes of Health and the National Science Foundation, now require grant proposals to include data management plans and public access to information. A cultural shift is unfolding within the broader research community, and the California Digital Library is helping UC researchers to both lead and adapt.

UC scholars benefit from the efforts of the CDL as we help build communities and services in support of data-intensive research. CDL goals established in 2013-2014 relative to supporting and raising awareness about data-intensive research issues include:

#### **ADVOCATE**

- » Goal: Advocate for open access, open data, and open science by engaging in collaborative open access initiatives, and by emphasizing open themes in outreach and communication for DataUp, DMPTool, EZID, and Merritt.
- **Goal:** Advocate for good data management practices by promoting the use of CDL services throughout the research data lifecycle.
- Soal: Encourage authors to deposit data produced in the course of research using CDL services.

### **BUILD**

**Goal:** Help researchers conform to funder requirements and institutional policies by adding new functionality, guides and help resources to the DMPTool.

# **Data Management Plans**

# THE NEED: Ready-to-use data management plans

University of California researchers in all fields of study are on the cutting edge of a profound shift in how research is conducted and the types of data generated. Importantly, funders of research – including federal, state, and other non-profit entities – are increasingly requiring that data generated as part of the research process be managed, preserved and made publicly available.

## **CDL RESPONDS: DMPTool**

### 2013-2014 Accomplishments

As research data are increasingly considered a valued end product by funders, regulatory agencies and the public, data management plans (DMPs) have become a required component of grant applications and the research planning process.

Released by CDL and its partners in May 2014, the expanded DMPTool (version 2) supports researchers within and beyond UC in creating ready-to-use data management plans tailored to specific funding agencies. Institutional administrators of the tool, including librarians across the 10 UC campuses, have customized it with local branding, templates and assistance tailored to their campus.

In June 2014, there were over 120 DMPTool partners that had either established institutional authentication for the DMPTool (e.g., Shibboleth, LDAP) or customized it for their users, representing 41 states and the District of Columbia. California leads all states with 20 DMPTool partners, including the ten UC campuses and the Lawrence Berkeley National Lab.

Funding for the DMPTool (version 2) development project came from the Alfred P. Sloan Foundation and the Institute of Museum and Library Services. Institutions collaborating on the DMPTool (version 2) development project included the CDL via the UC Curation Center (UC3), the University of Virginia Library, the University of Illinois at Urbana-Champaign Library, Purdue University Libraries, the Smithsonian Institution and DataONE.



# MEET THE CALIFORNIA DIGITAL LIBRARY

"Because the DMPTool application serves a broad community of users, frequent collaboration between key project partners was essential to delivering a successful service. Throughout the recent redesign, input from researchers, librarians and curators allowed the CDL development team to translate user stories into a flexible. customizable application. It's exciting to watch as the tool's number of users continues to expand."

#### Marisa Strong

Application Development Manager CDL UC Curation Center (UC3)

# A Tool for Sharing Datasets

# EXPLORE CDL SERVICES & PROGRAMS

### **UC3 Co-Sponsors IDCC14**

The 9th International Digital Curation Conference (IDCC14), held in San Francisco in February 2014, was organized by the Digital Curation Centre UK in partnership with the University of California Curation Center (UC3) at the California Digital Library and the Coalition for Networked Information (CNI). The focus of the conference was how data-driven developments are changing the world around us. Over 200 individuals from the U.S., Europe, and Asia attended, representing universities, governmental and non-profit institutions, and the private sector.

# THE NEED: A simple self-service tool for researchers to archive and share datasets

Data sharing is critical for the advancement of research. Researchers benefit from increased collaborations, validation, and recognition of their work; institutions and funders benefit from the measurable increase in the impact of their resources; and society benefits from the potentially faster pace of research.

Researchers wishing to provide access to their data need a self-service tool specifically designed to allow them to easily and quickly share their primary research data.

# **CDL RESPONDS: Dash**

### 2013-2014 Accomplishments

In response to researchers' need for a simple, self-service tool for archiving and sharing their datasets, the California Digital Library's University of California Curation Center (UC3) program is making the Dash data curation tool available to all UC campuses. Dash is a centralized CDL-hosted service, with campuses having full control over the service's branding, including the campus domain name in public URLs and the inclusion of a campus logo.

The Dash project began as DataShare, a collaborative effort between University of California San Francisco's Clinical and Translational Science Institute (CTSI), the UCSF Library, and UC3. The Dash tool utilizes the UCSF DataShare codebase and allows any UC-affiliated researcher to archive and share research datasets, with appropriate permissions. Data in the Dash repository is made publicly available free of charge; anyone can access the datasets, download them, and use them, provided they give proper attribution. All data submitted to Dash will be preserved in the Merritt repository hosted by CDL.

In early 2014, the UC3 project team began working with several UC campus libraries to set up campus-specific instances of a CDL-hosted Dash service, including Berkeley, Irvine, Los Angeles, and Merced. For 2014-2015, it's expected that researchers on these campuses will begin utilizing Dash to easily describe, deposit and share their research data publicly.

# **Unique Identifiers for Research Outputs**



# **THE NEED:** Manage and cite research outputs

Scholars need to manage, find and access their own research outputs, as well as those generated by others. Without reliable, durable reference to such outputs, the scholarly record is incomplete. Access to datasets underlying scientific research results, for example, is critical to being able to reproduce and verify them.

# CDL RESPONDS: EZID, unique persistent identifiers for research outputs

### 2013-2014 Accomplishments

In response to scholars' critical need for unique identifiers, CDL's EZID (easy-eye-dee) service offers Digital Object Identifiers (DOIs) and Archival Resource Keys (ARKs) to UC research units and institutions around the world. EZID allows them to create and manage identifiers so that they can track usage of their research data, get credit for their work, and promote access and reuse. For DOIs, CDL joined with other research and national libraries to found DataCite, a global organization with these same goals: the sharing, access and reuse of data.

CDL is also the maintenance agency for the ARK identifier scheme, which is popular with museums and archives, with over 260 organizations registered. EZID has been adopted by all 10 UC campuses and over 60 other institutions in and beyond California, including Caltech, the National Center for Atmospheric Research, and the US Geological Survey.

In early 2014, CDL's EZID team designed a thorough consultative process with its users to identify and prioritize EZID service enhancements. Through that consultation, the team surfaced users' current needs related to metadata editing, link checking and usage statistics. The team established a development roadmap and users can expect enhancements to be released throughout 2014-2015.

At DataCite's bi-annual General Assembly in March 2014, EZID was given the Gold Award for the most DOIs registered. EZID clients have created more than 500,000 DOIs and more than 1,000,000 ARKs since the last General Assembly in December 2012.

# Introduction



### Introduction

The high standard of research and scholarship pursued by University of California students and faculty demands ready access to an expansive universe of online knowledge resources, from current cutting-edge research to rich historical content needed to sustain wide-ranging academic inquiry.

In keeping with its 2013-2014 strategic themes of "Explore, Advocate, Build, Connect," CDL made significant progress toward the following goals relative to building collections for UC faculty, students, and the public:

### **EXPLORE**

**Soal:** Explore digitizing additional UC public domain content, including federal government documents.

### **ADVOCATE**

- » Goal: Advocate for increased access to special collections and archives by supporting the UC Libraries Digital Collections registry of digital collections.
- Soal: Advance community licensing standards in the area of text and data mining (TDM), and negotiate and/or enhance TDM provisions in CDL contracts.
- **Soal:** Advocate for policies supporting increased public access to library collections by participating in national forums on copyright reform.

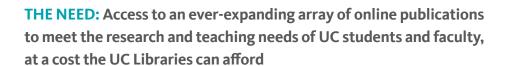
### **BUILD**

- Soal: Lay the foundation for the UC Libraries Digital Collection by implementing the Digital Asset Management System, loading initial collections, and building an organizational infrastructure.
- **Goal:** Accelerate the digital conversion of collections by extending the Google book digitization project to new campus locations.
- **Goal:** Ensure best use of shared resources and space across the Western region by implementing Year Three of the WEST distributed print journal archive.

### **CONNECT**

- **Goal:** Promote the interests of the UC Libraries by taking on increased roles in national and international networks, such as the Digital Public Library of America.
- **Soal:** Release the Zephir Metadata Management System (the first HathiTrust major development effort by a HathiTrust partner).

# The Collective Buying Power of the UC Libraries



To acquire an ever-growing number of online publications and support trends in multicampus research collaboration and online instruction, the UC Libraries must leverage their collective buying power to build pre-eminent shared collections available to the entire academic community.

# CDL RESPONDS: Leveraging the collective buying power of the UC Libraries

# 2013-2014 Accomplishments

One of CDL's core functions is to serve as a consortial licensing agent for the UC Libraries. Through collaborative co-investment, CDL and the UC Libraries provide systemwide access to more than 66,000 online journals, well over 200 databases, and hundreds of thousands of ebooks. CDL strives to maximize access to content at the lowest possible cost and assure long-term cost control for the nearly \$41 million dollars in shared content that it licenses annually on behalf of the UC campuses.

In 2013-14, CDL successfully renewed important multi-year agreements with two of its major journal publishers, Elsevier and SAGE, achieving significant cost control in both contracts that will produce millions of dollars in long-term savings for the UC Libraries. A recent article on journal licensing practices by a respected UC economist noted that UC's Elsevier contract alone has produced savings for the University of over \$4 million per year compared to industry norms. Also resolved to mutual satisfaction this year was a long-standing pricing dispute with the Nature Publishing Group.

Campus library expenditure increases for content licensed through CDL in 2013-2014 were held to a little more than 2% over the previous year, including new content purchases.

Twenty-eight new resources were added to the Libraries' systemwide content portfolio, with fifteen of them wholly funded by the CDL, including: major ebook packages from Elsevier and the Royal Society of Chemistry; new Nature journals; several JSTOR journal collections; the new Data Citation and Book Citation indexes from Thomson-Reuters; and the Foreign Broadcast Information Service (FBIS) Daily Reports.

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# MEET THE CALIFORNIA DIGITAL LIBRARY

"Adherence to our established licensing principles in vendor negotiations assures that our user community has maximum access and the flexibility to use materials in all ways legally possible. In some cases, we have been the first institution granted license terms that later became the industry standard."

### **Curtis Lavery**

Licensing Manager
CDL Collections Program

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# EXPLORE CDL SERVICES & PROGRAMS

### **The Licensing Toolkit**

"For any licensing issue, I have been turning to the California Digital Library's excellent standard agreement in its Licensing Toolkit. I like the fact that there is mutual indemnification for failure to comply with warranties. I particularly like the patron confidentiality clause and have been using it in licenses whenever I have been asked."

### Peter Hirtle

Senior Policy Advisor Cornell University Library Ebook acquisitions are a major focus for the UC Libraries and new purchasing models continue to emerge. In addition to five new ebook package purchases (three of them funded wholly by the CDL), CDL licensing staff have handled vendor negotiations and ongoing management for several "demand-driven" agreements in which large numbers of ebooks from different publishers are available for access by students and faculty, with individual titles triggered for purchase only when they are used above a certain threshold.

Securing favorable license provisions that enable unfettered use for academic purposes is also a central tenet of CDL negotiations. CDL negotiated new text and data mining (TDM) provisions in several of its journal renewal agreements in 2014 to support this emerging mode of research for scholars, and was also successful in securing explicit author rights provisions to support UC authors in complying with the UC Open Access Policy.

# **Connecting Users with Unique Digital Collections**

# THE NEED: Infrastructure for managing, aggregating, and displaying the UC Libraries' unique digital resources

The University of California libraries create, own, and maintain vast numbers of unique and historical digital resources (such as scanned photographs, oral histories, films and letters). A shared management system can provide economies of scale and an integrated presentation of collections that showcases the breadth of the UC Libraries Digital Collections.

# **CDL RESPONDS:** The UC Libraries Digital Collection Project

### 2013-2014 Accomplishments

After the libraries concluded an investigation of its collective workflows, needs, and current technologies for managing unique digital resources, the UC Council of University Librarians (CoUL) approved a project to:

- Implement a coordinated, multi-campus digital asset management system (DAMS)
- Aggregate content from a variety of platforms
- Create a public access interface for the resulting systemwide collection

In May 2013, CoUL requested that the California Digital Library assume responsibility for establishing a UC Libraries Digital Collections (UCLDC) implementation team. CDL created an internal core project team and partnered with individuals across the 10 UC campus libraries to form an all-inclusive, systemwide initiative.

In June 2014, the project achieved a major objective: the installation and configuration of the Nuxeo DAMS. The DAMS is now available for the UC campus libraries to use for uploading files, creating and editing metadata, and building and managing digital objects. Existing collections from six campuses (Davis, Irvine, Merced, Riverside, San Francisco and Santa Cruz) have been loaded into the DAMS, and new collections will soon follow.

An ambitious development schedule will continue in the coming fiscal year. Progress has been made in designing the user interface where all publicly accessible UCLDC collections will be aggregated and made available to scholars and the public. When the site launches in June 2015, it will be optimized for desktop, mobile and tablet users and will showcase the unique and historical digital resources of the UC Libraries, alongside those of libraries, archives, and museums from across the state that are currently accessible via the CDL-managed Calisphere service.



## **MEET THE CALIFORNIA DIGITAL LIBRARY**

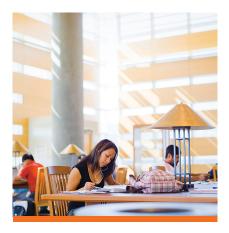
"The Web Production Team develops user interfaces for many of CDL's services. Our emphasis is on standardsdriven practices and Responsive Web Design methodologies with the goal of creating a seamless experience for users of desktop, mobile and tablet devices."

### **Eric Satzman**

Team Manager CDL Web Production Team

L-R: Craig Thompson, Joel Hagedorn, Eric Satzman

# **Contributing to a National Digital Library**



# THE NEED: A freely available, single point of access to digital resources from libraries, archives, and museums across the United States

Similar to the University of California Libraries, museums, public libraries and academic libraries across the United States manage a treasure trove of unique digital resources. Uncovering this material can be problematic as there is not a single point of access to the collections, and much of it is not easily discoverable via search engines.

# **CDL RESPONDS:** Participation in the Digital Public Library of America

### 2013-2014 Accomplishments

The Digital Public Library of America (DPLA) is an initiative to build a national digital library of books, images, historic records and other materials currently managed by public libraries, universities, museums and other institutions across the country.

In June 2013, through its membership in the HathiTrust Digital Library partnership, the UC Libraries began contributing to the DPLA collection when metadata for 3.6 million public domain digitized books was shared with DPLA by the HathiTrust. Over 600,000 of those 3.6 million volumes are items owned and digitized by the UC Libraries, demonstrating again that the digitization efforts of the UC Libraries play a significant role in building a single point of access to freely available books for the world.

In April 2014, CDL and the 10 UC campus libraries officially assumed the role of a DPLA Content Hub. As such, CDL will be sharing metadata records from Calisphere, a website containing approximately 250,000 digital primary source objects contributed by libraries, archives, and museums across California.

For 2014-2015, the National Endowment for the Humanities and DPLA have provided CDL with funding to consult with Calisphere contributors, the San Francisco Public Library and the Los Angeles Public Library on sharing metadata records and further refining CDL's technologies for aggregating metadata, thereby expanding opportunities to provide access to even more resources in the future.

# **Expanding Digital Access to UC Book Collections**

# EXPLORE CDL SERVICES & PROGRAMS

### **HathiTrust Digital Library**

As of July 2014, of the approximately 11.4 million books digitized and deposited into the HathiTrust Digital Library by its institutional partners, over 4 million of those fall within the public domain.

As a HathiTrust Digital Library partner, the UC Libraries have contributed over 3.6 million volumes from six campus libraries and two regional library facilities, with over 600,000 of those being within the public domain.

### THE NEED: Increased access to the UC Libraries book collections

The combined University of California Libraries book collection is impressive – an estimated 39 million print volumes. Increasing awareness of these materials and expanding digital access by students, faculty, and the public not only supports scholarship, but also helps UC fulfill its public service mission.

# **CDL RESPONDS: UC Libraries and the Google Library Project**

### 2013-2014 Accomplishments

The California Digital Library has coordinated the UC Libraries' participation in the Google Library Project since its inception in 2006, and in April 2014 the CDL joined the UC Northern Regional Library Facility in celebrating the shipment of its 3 millionth book to be digitized by Google. The digital volumes are made available to the public in the HathiTrust Digital Library, a large-scale collaborative digital library built and maintained by a partnership of research libraries across the United States, and Google Books.

In mid-2013, UC Davis became the fifth UC campus location to send out-of-copyright books and journals to be digitized as part of the project. To date, over 36,000 UC Davis books have been digitized, including materials on viticulture and enology, apiculture, Civil War medicine, and veterinary medicine.

CDL coordinated the operational and technical processes involved and facilitated the deposit of UC Davis' digitized volumes into the HathiTrust, as well as those from other UC campuses. This project is an outstanding example of the highly collaborative efforts by Google's Digitization Group, the CDL Digitization Team, and many UC library staff.

Beyond providing access to the digitized volumes via HathiTrust and Google Books, CDL launched the redesigned University of California Library Reprints website in October 2013, where thousands of the public domain books digitized by the UC Libraries are available for purchase in reprinted editions or to download for free.

CDL has also been active in advocating for the broadest possible use of these collections, participating in several national forums on copyright reform and mass digitization. In March of 2014, CDL submitted formal comments to the U.S. Copyright Office in response to its Notice of Inquiry on Orphan Works and Mass Digitization.

# **Discovering and Displaying Digitized Books**

# EXPLORE CDL SERVICES & PROGRAMS

# UC Libraries Digitization Project

"I was absolutely thrilled to find that so many titles I was looking for were available digitally through the HathiTrust Digital Library. As many of the Persian historical chronicles I am reading for my research were published in India at the turn of the 20th century, the HathiTrust volumes were fully accessible as downloadable PDFs. I found myself reading 16th-century Mughal chronicles published in 19thcentury India in 21st-century Newcastle upon Tyne, without having to go anywhere. I was able to engage in the kind of detailed research that would have been impossible for me to conduct without this resource."

#### Sholeh Quinn

Associate Professor of History UC Merced

# THE NEED: A source for discovering and displaying books digitized by the UC Libraries

Digitization efforts by the University of California Libraries have resulted in an impressive collection of digital material available to UC students, faculty, and the broader public. These materials must be managed, preserved, and made accessible to users through robust discovery systems.

# CDL RESPONDS: HathiTrust and the Zephir metadata system

# 2013-2014 Accomplishments

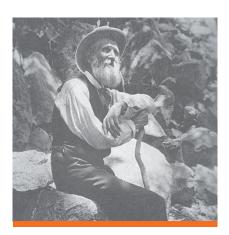
In November 2013, the California Digital Library's Discovery & Delivery Team, in collaboration with staff from the University of Michigan, launched a new bibliographic metadata management system, Zephir, for the HathiTrust Digital Library. UC is a founding partner and major contributor to the HathiTrust Digital Library.

Metadata submitted to and processed by Zephir populates the HathiTrust Digital Library online catalog, informs rights determinations that facilitate access to digitized resources, and triggers the process of moving digitized resources to the HathiTrust Digital Library repository.

The Zephir project is significant because it is the first core infrastructure component hosted by a HathiTrust Digital Library partner outside of the University of Michigan Library. It is particularly appropriate that this system was developed by CDL, an established leader in large-scale bibliographic systems, beginning with the original version of the Melvyl Catalog in the early 1980s.

Since its launch in November 2013, more than 790,000 new or updated bibliographic records for volumes from 28 sources have been loaded into Zephir.

# **Resources on Historic Persons and Organizations**



# THE NEED: New modes of inquiry for conducting research on historic persons

Students and faculty conducting research on the lives and work of historic persons and organizations struggle to uncover primary resources related to those individuals. Primary resources are often unpublished materials that are collected by university libraries and archives, such as letters, manuscripts and photographs. Identifying and locating primary resources on historic persons and organizations is time intensive and few tools exist to discover this valuable material which may be scattered across many institutions.

# **CDL RESPONDS:** The Social Networks and Archival Context Project

### 2013-2014 Accomplishments

The Social Networks and Archival Context Project (SNAC), launched in 2010, is a collaborative effort including partners at the University of Virginia, UC Berkeley School of Information, and the California Digital Library. The overarching goal of the collaboration is to create a system that will support scholars who are conducting research on historic persons, allowing them to discover a range of primary resources held by a vast network of archives, libraries, and cultural institutions.

2014 accomplishments include the completion of an enhanced prototype system featuring over 2.6 million searchable names. SNAC is also laying the groundwork for a sustainable international cooperative program for archival description which will be administered by the U.S. National Archives and Records Administration (NARA).

The project has been generously supported through grant funding received from the Andrew W. Mellon Foundation (2012-2015), the National Endowment for the Humanities (2010-2012), and the U.S. Institute for Museum and Library Services (2011).

Project activities for the 2014-2015 year include enhancing and expanding the number of names available in the prototype system. Work is also underway to establish the legal and policy framework for the cooperative service, such as a legal charter and data ownership policies. CDL is leading activities pertaining to the development of userbased requirements for the cooperative's services, including conducting user studies and drafting design recommendations.

# **Connecting Students and Faculty to Scholarly Publications**

# THE NEED: An easy way for students and faculty to access the scholarly publications they need

As information pathways proliferate, it becomes harder for students and faculty to find what they need when they need it. The UC libraries have a network of different discovery and delivery systems that are inherently in flux. Even with a citation in hand, students and faculty may encounter multiple hurdles getting to their desired publication. Challenges can include logging on to the network, accessibility for disabled patrons, or confusion relative to a publisher's interface.

# CDL RESPONDS: Simplify the experience of utilizing UC-eLinks and Request, the UC libraries' delivery services

### 2013-2014 Accomplishments

In an exploration phase, a small CDL team investigated solutions implemented by peer institutions, and tested potential technologies, including Umlaut, developed by Johns Hopkins University. The exploration phase resulted in the recommendation to develop a new delivery aggregator platform at CDL.

In 2014, a project team launched with members from CDL's Discovery & Delivery team and CDL's User Experience Design team with a project nickname of Cedilla, a nod to Umlaut as the inspiration.

The team has developed initial functional requirements and wireframes, and is working on building technical infrastructure and a test suite. The focus is on replicating the existing functions of UC-eLinks for moving from citations to content or the option to request items from other libraries; enhancements will be built on this framework.

Separately, in late 2013, CDL's Request team engaged the services of UC Berkeley's Assistive Technology Teaching and Learning Center (ATTLC) to perform an accessibility review of the user interface of Request, the UC libraries' interlibrary loan service, hosted and managed by CDL. The ATTLC team produced a detailed report, demonstrating the experience of a blind or low vision person using Request. The CDL team was deeply impressed with the ATTLC's work, and their findings led to numerous improvements to make the Request user interface more accessible to people with visual disabilities.



# MEET THE CALIFORNIA DIGITAL LIBRARY

"As a public university that cultivates diversity, accessibility is paramount. CDL has gained deep experience working with state-of-the-art accessibility tools, standards, and practices. We've had success in advocating for improvements in the products we license, and most importantly, we've improved the user experience for our own CDL websites and products."

### Lena Zentall

CDL Discovery & Delivery Team

# **Collaborative Management of Print Journal Collections**

# EXPLORE CDL SERVICES & PROGRAMS

#### **AGUA**

During WEST's first phase, systems were developed to support both annual collections analysis across the region and retention decisions about what to archive next. Members supplied holdings information of print journal titles, overlaps were determined, and archiving plans for specific journals were proposed. More than 6 million library holdings records were analyzed over the course of three years to support overlap analyses and retention decisions.

In July 2014, WEST announced the launch of AGUA, a decision support information center (or "dashboard") that provides a graphical user interface to the collection analysis and reporting capability used in WEST's first phase. WEST members and archive holders can now review proposed title lists, make local archiving decisions and download collection comparison reports online.

CDL's Discovery & Delivery
Team undertook the AGUA
technical development project
during 2013-2014 on behalf
of the WEST membership.
Future AGUA developments
will include functionalities to
compare collections with other
print archives, and support for
regional collection analysis and
selection criteria.

# THE NEED: Preserve the scholarly record and effectively manage print journal collections

University libraries hold extensive collections of print journals as part of their commitment to preserve, organize and provide access to the scholarly record. UC and other research libraries seek to ensure retention of complete journal backfiles for the future and to optimize use of campus library space for print collections.

# **CDL RESPONDS:** Western Regional Storage Trust (WEST)

# 2013-2014 Accomplishments

The Western Regional Storage Trust (WEST) is a collaborative print journal archiving program with more than 100 participating research libraries in the western region of the United States. By participating in the Trust, UC Libraries and its research library partners agree to create and retain archives of complete journal backfiles at six storage facilities, including UC's Northern Regional Library Facility and its Southern Regional Library Facility. The combined efforts in the region form a network of distributed, shared print repositories of scholarly journal content.

WEST was launched with the support of an Andrew W. Mellon Foundation grant, awarded to the University of California Libraries in 2010; principal investigators included Laine Farley, Executive Director of the California Digital Library and Brian E. C. Schottlaender, Audrey Geisel University Librarian at UC San Diego.

In WEST's first implementation phase (2011-2013) approximately 170,000 volumes were archived corresponding to more than 1 million duplicates held by WEST library partners. Other accomplishments include the successful implementation of a business and operations model for a distributed archive, including policies, procedures, and administration of member agreements.

In 2013, WEST was awarded a second three-year grant from the Andrew W. Mellon Foundation to transition from a grant funded start-up to a fully self-sustaining library program. Goals for the second phase (2014-2016) include archiving an additional 120,000 volumes and conducting long-range strategic planning for the program.

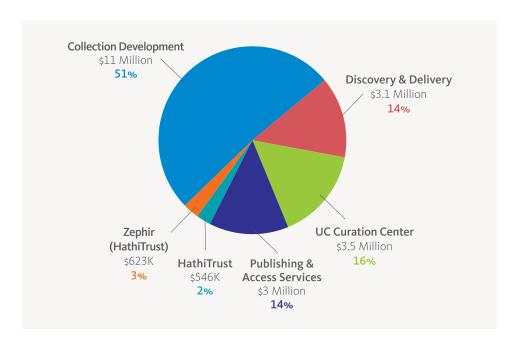
The California Digital Library serves as administrative host for the WEST program. CDL staff provide leadership and hold positions as WEST Program Manager and WEST Collections Analyst, as well as serving on the WEST Executive Committee and WEST Operations and Collections Council.

# CDI FUNDING

# 2013-2014

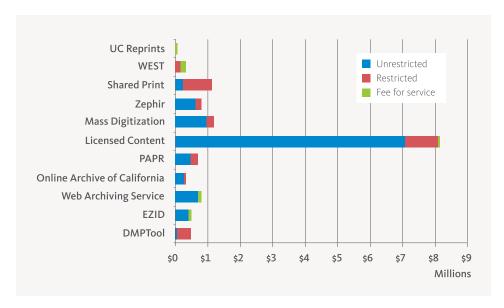
CDL has a budget of approximately \$19M from the campus assessment fund, augmented by \$1M from the state lottery fund as well as \$2M from grants, fee-for-service or other restricted funds. Below is a chart showing CDL expenses by program.

### **CDL PROGRAM EXPENDITURE 2013-2014**



# **CDL PROJECTS WITH RESTRICTED FUNDING 2013-2014**

Below is a chart depicting external funding by CDL program for unrestricted funds, restricted funds (grants), and fee-for-services (cost recovery).



# **FUNDERS/PROJECT**

**Alfred P. Sloan Foundation** (DMPTool)

### Andrew W. Mellon Foundation

(Western Regional Storage Trust; Social Networks and Archival Contexts Project)

### **Center for Research Libraries**

(Print Archives Preservation Registry)

Council on Library and Information Resources / Digital Library Federation

(Postdoctoral Fellow Support)

### Google

(UC Mass Digitization)

# Gordon and Betty Moore Foundation

(DataUp)

# Institute of Museum and Library Services

(DMPTool)

## **Internet Archive**

(UC Mass Digitization)

#### ITHAKA

(JSTOR paper repository)

# Microsoft Research

(DataUp)

#### **National Science Foundation**

(DataONE; DataUp)

## SYSTEMWIDE LIBRARY AND SCHOLARLY INFORMATION ADVISORY COMMITTEE (SLASIAC) 2013-2014 ROSTER

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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Coalition for Networked Information (CNI)

Council on Library and Information Resources (CLIR)

**DataCite** 

Digital Public Library of America (DPLA)

Digital Preservation Network (DPN)

HathiTrust

Improving Access to Text Project (IMPACT)

(....)

International Coalition of Library

Consortia (ICOLC)

International Internet

Preservation Consortium (IIPC)

**Library Publishing Coalition** 

Name Assigning Authority Number (NAAN)

National Digital Stewardship Alliance (NDSA)

National Information Standards Organization (NISO)

Open Access Scholarly Publishers

Association (OASPA)

OCLC Research Library Partnership

Open Researcher and Contributor ID (ORCID)

Preservation and Archiving Special Interest Group (PASIG)

Public Knowledge Project (PKP)

Portico

Scholarly Publishing and Academic Resources Coalition (SPARC)

Western Regional Storage Trust (WEST)

CERN (SCOAP3)

Center for Research Libraries (CRL) (WEST, PAPR)

CrossRef (EZID)

DataOne (NSF DataNet, DMPTool, Merritt Repository)

Data Curation Centre (DMPTool, data curation)

EDINA (DataCite)

EDUCOPIA (Scholarly publishing)

FORCE11 (Scholarly publishing)

Information Center for the Environment (ICE), University of California, Davis (DataONE)

Institute for Advanced Technology in the Humanities (SNAC)

JISC (EZID)

Lulu (eScholarship PLUS)

Moorea Biocode Project (DataONE)

OCLC (Melvyl, VDX)

Open Context, Alexandria Archive Institute (Merritt)

Office of Scientific and Technical Information (OSTI), Department of Energy

Portico (JHOVE2)

Peer REview for Publication & Accreditation of Research Data in the Earth Sciences

(PREPARDE) (Data publication)

Purdue University Libraries (DMPTool)

Public Knowledge Project (eScholarship)

Research Data Alliance (RDA) (Data curation)

San Diego Super Computer Center (SDSC) (Merritt Repository)

Smithsonian Institution (DMPTool)

Stanford University Library (IHOVE2)

Symplectic (eScholarship, UC Open Access Policy)

U.S. Geological Survey (USGS) (DataONE)

UC Berkeley School of Information (Social Networking and Archival Context Project)

UC Berkeley's Richard B. Gump South Pacific Research Station (Merritt Repository)

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University of Virginia Library (DMPTool)

University of Illinois at Urbana-Champaign Library (DMPTool)

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