

## A "Strategic Resource" for UC

Laine Farley, Executive Director UC Berkeley Library Committee March 19, 2013

## Road Map

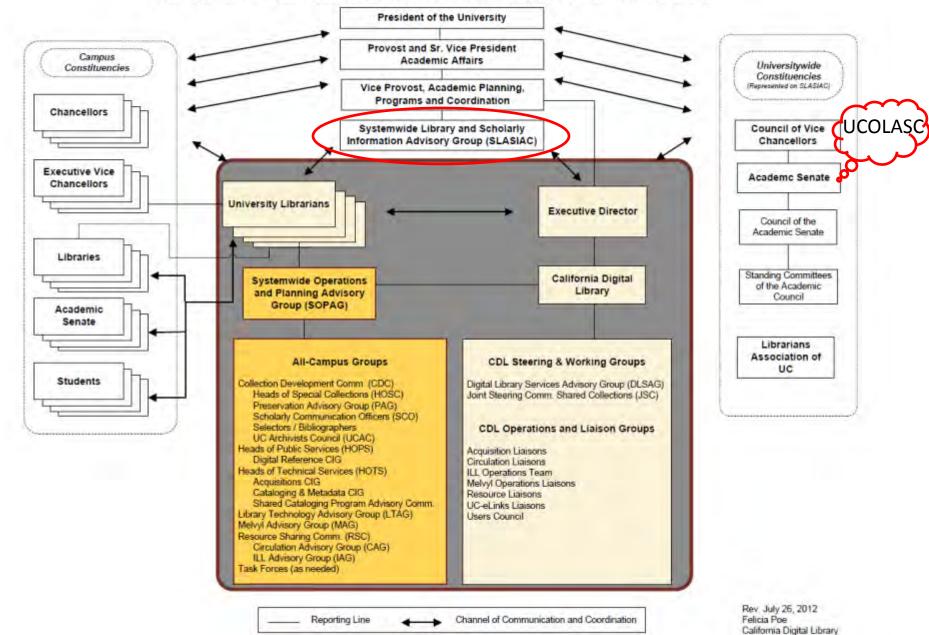
- Brief background
- What is a digital library anyway?
- What's new?
- How does CDL help the campuses?
- Utopic vision: what CDL could be if it had ideal staffing and funding



1885 map prepared for the Oakland Daily Evening Tribune http://content.cdlib.org/ark:/13030/kt4d5nd22w/?order=1 Source: Oakland Public Library

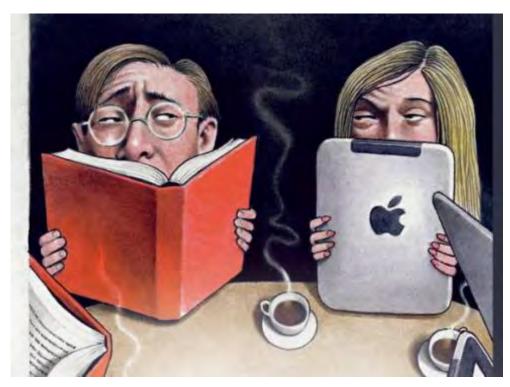
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CALIFORNIA President		HOME MIS	SION OR		INITIATIVES
UCOP Academic Affairs Academic Planning P	rograms and Coordination	-	-		
Academic Plann	ing, Pro	grams an	d Co	ordinat	ion
OVERVIEW	STAFF	ACADEMIC PLAT	NNING	PROGRAMS 8	INITIATIVES
We support academic planning and innovation.	Academic Planning, Programs and Coordination (APPC) maintains academic policies and supports planning and analysis of instructional activities throughout the UC system. It also provides oversight and financial management of academic programs and support for new initiatives.		Est ad scł	FDirectory tablished in dress cost o holarly mmunicatio	f
ACCREDITATION & PROGRAM REVIEW	INSTRUCTIONAL PROGRAMS		PUBLIS	PUBLISHING & LIBRARIES	
Accreditation procedures and resources	UC Online		Califor	California Digital Library (CDL)	
Academic program review	UC Education Abroad Program (UCEAP)		UC Pre	UC Press	
	UC Washington Center (UCDC)			UCTV	

#### COMPONENTS OF THE PLANNING & CONSULTATIVE STRUCTURE FOR UC LIBRARIES





## What is a digital library?

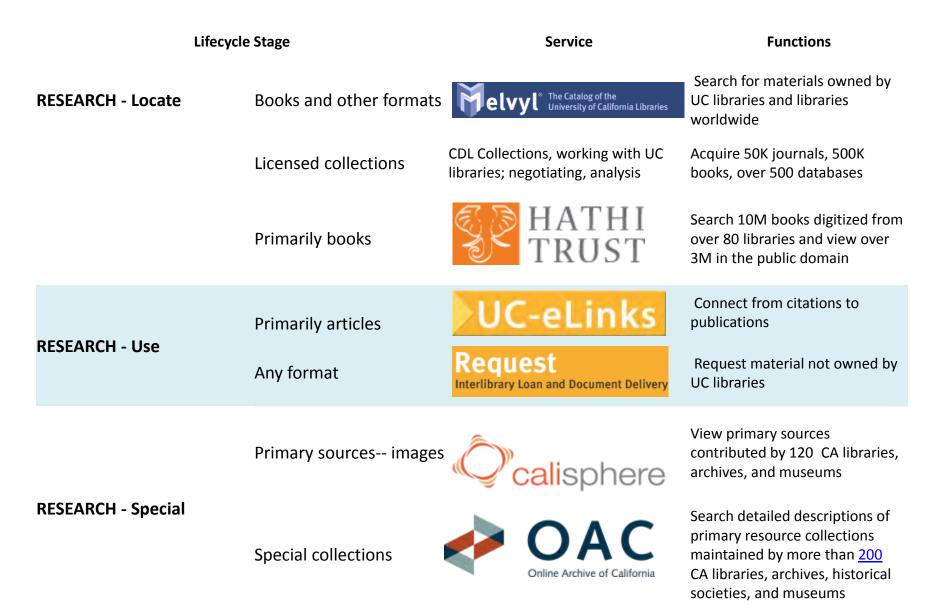


## CDL provides...

### Over 20 <u>award-winning</u> services supporting the



## What libraries have always done...



## And now, moving farther up the life cycle...

Lifecycle Stage		Service	Functions
PLAN	Grant application	BINDETOOL Guidance and Resources for your Data Management Plan	Create, edit, share, and save data management plans to meet funder requirements
COLLECT	Data collection	* DATAUP Describe, Manage, & Share Your Data	Open source add-in and web application for Microsoft Excel as a data collection tool
		web archiving service	Collect and manage ephemeral web-published content
MANAGE , SHARE, SAVE	Tracking, management citation		Create and manage persistent identifiers
	Storage, management, sharing		Curation repository: store, manage, and share research data
PUBLISH	Scholarly publication	eScholarship University of California	Open access scholarly publishing services: 50,000 papers; 50 journals; books, seminars, and more
	Data publication	Data Publication platform	An infrastructure to publish and receive credit for sharing research data





## What's New?



## New in data curation

UCCC University of California, San Francisco | About UCSF | UCSF Medical Center

DataShare Open Data for the global research community

Search

Home About Browse Upload

### 

e.g. HIV, radiology

Browse by: All Records Lab/Department Researcher

### Recently uploaded research data

- Progression of white matter degeneration in amyotrophic lateral sclerosis: A diffusion tensor imaging study.
- White matter damage in frontotemporal dementia and Alzheimer's disease measured by diffusion MRI.

Partnership with UCSF Library, CTSI Uses CDL infrastructure (Merritt, XTF)

### 📤 Share data

Upload research data

### Learn more: About DataShare Why share research data? FAQ

#### **Researcher voices**



"Making data transparent and available is going to accelerate all of science. It's a relatively inexpensive way to get more value out of all of the work that we do." —Dr. Michael Weiner UCSE

## New for



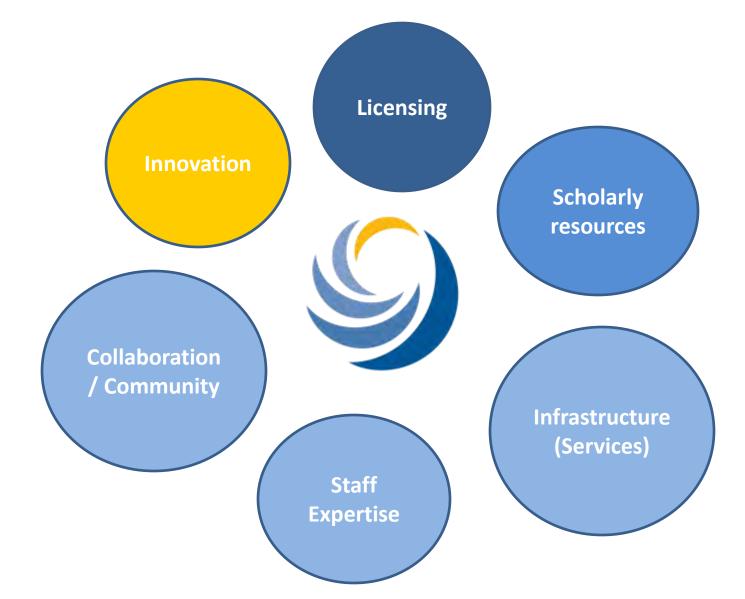
- HathiTrust Research Center
  - "A box that's opened for the first time"
    - Copyrighted works: Safe and secure access, safe computational environment
    - Ask questions within HTRC without violating copyright
  - "We will see whole new patterns that were invisible before" ...that you can't see as an individual reader
    - "Glimpse patterns in 19<sup>th</sup> c. literary history"
    - Make results available; ability to repeat methods
- Video: <a href="http://www.hathitrust.org/node/1172">http://www.hathitrust.org/node/1172</a>





## How does CDL help the campuses?

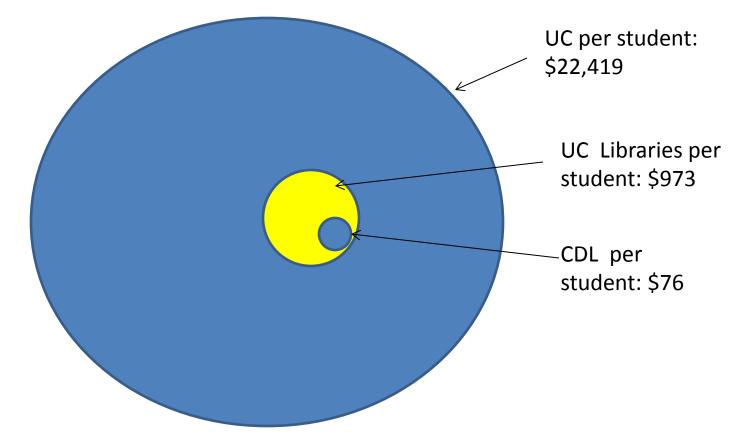
## **CDL Review - Value Statements**



### **From CDL Review**

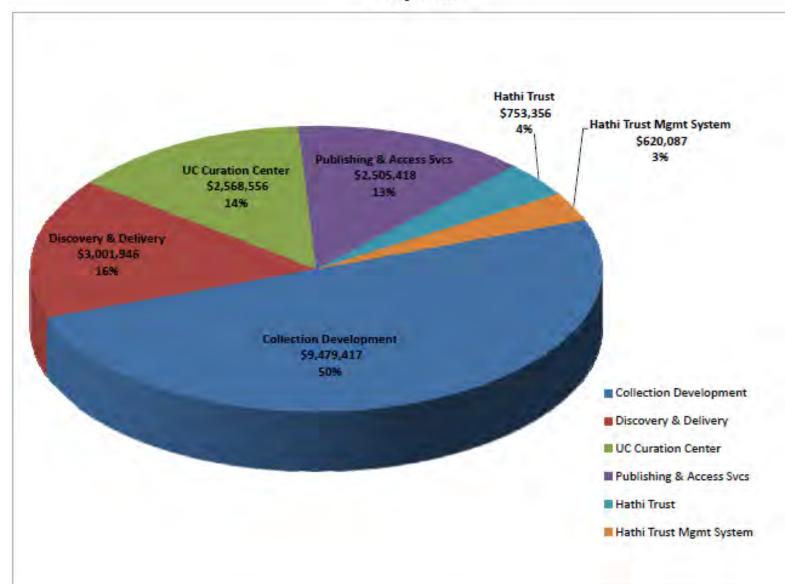
Value - "A strategic resource for UC..."

The CDL operates at a current annual cost-equivalent of \$68 per UC faculty, student, and academic staff member (based on 2010 budget and data).



### 2012-2013 Budget

CDL FY1213 Budget Program Cost

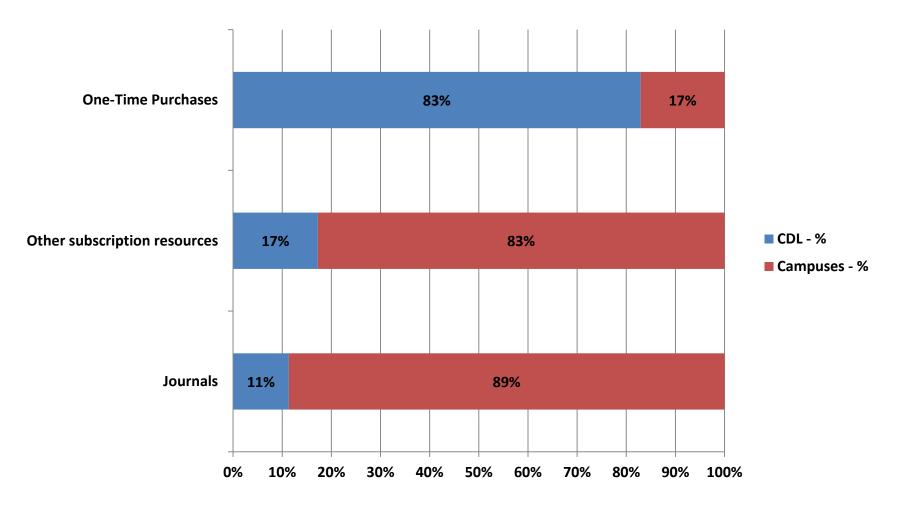


## 2011 Systemwide Content Expenditures

 Total Expenditures \$35,000,000 \$32,481,869 - \$38,743,006 \$30,000,000 С а \$25,000,000 CDL m р - \$6,261,137 \$20,000,000 u S - 16% е \$15,000,000 S \$10,000,000 Campuses \$6,261,137 - \$32,481,869 \$5,000,000 CDL - 84% \$0

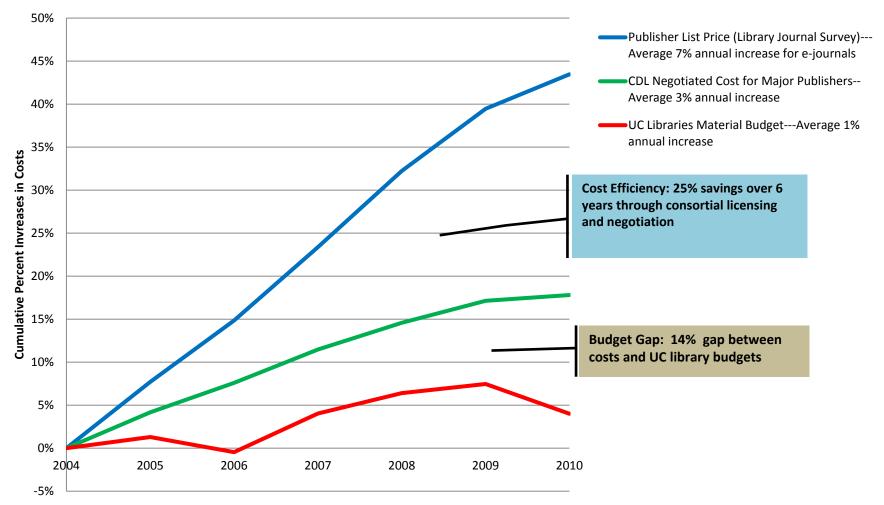
**CDL vs. Campus Expenditures** 

## CDL vs. Campus Contribution for Content, By Category



## CDL efficiencies can't make up the entire budget shortfall

CDL Cost Efficiency for e-Journals vs. Budget Gap Over 6 Years



## Budget 2012-2013 Augmentation Rationale

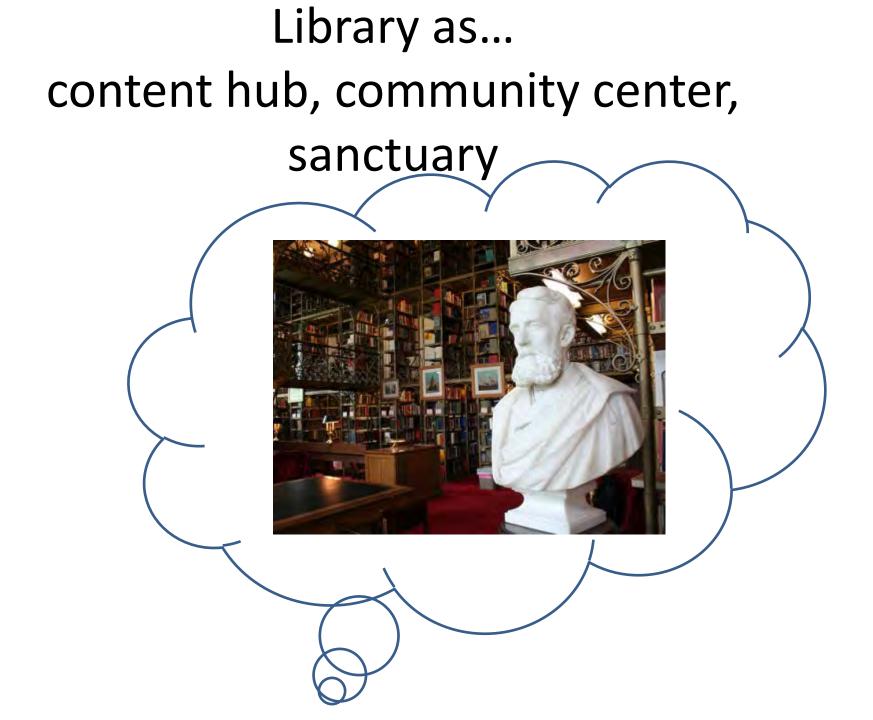
- Example: In 2006-2007, UC Libraries purchased 10,600 print copies of Springer books
- Between 2009-2011, conversion to a shared digital license had the following benefits:
  - lowered the unit cost per title per campus from \$120 to \$24
  - largely eliminated print, producing \$1.7M in capital cost avoidance
  - increased the number of titles available at each campus to over 3500 new titles per year (equal to 35,000 copies systemwide)
- Cumulative expenditure savings over three years: \$1.3M

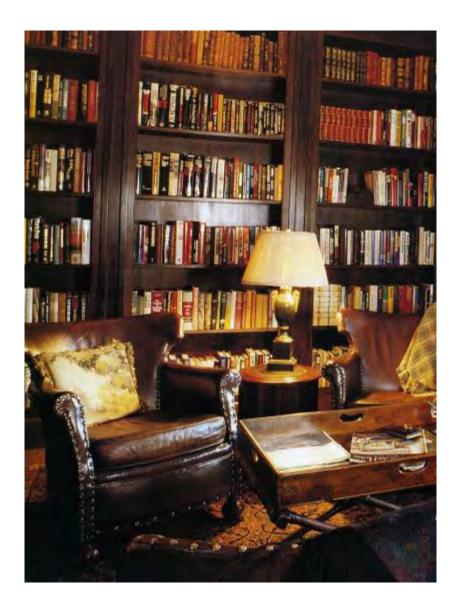
University of California











Where is the "deep leather chair"? We all build a personal library of what inspires and challenges us.

> The library is the student's office. – Paul Courant

## Assumptions

- Print collections will exist
  - How many copies?
  - Where?
- Campus physical libraries will exist
  - What services?
- A systemwide view, not just CDL or single campus

The library will be a global/local entity... able to transform without losing the fundamental purpose.

- Dr. Kevin Starr

## **Building Blocks**

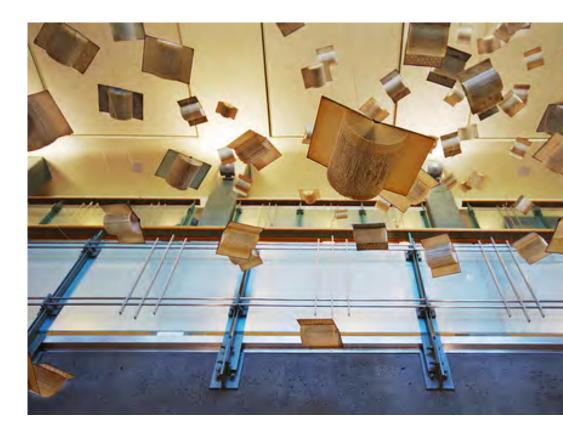
- Collections
- Tools
- Communities

"What is unique about the ...Library is its conception of what a 21<sup>st</sup> –century learning environment should be. It transitions from being a place you go to take way information in book form to a place that provides an intellectual home for you to deeply experience the knowledge that you are interacting with"

- R. Michael Young, NCSU

## **Collections: Existing Print Digitized**

- 38M volumes @ UC
  - 3M digitized in 6 years
  - Shared access in HathiTrust to 10M
    - Median duplication 31%
  - Complex legal, rights situation
  - Surrogates, not replacements



## Digitized collections enable...

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

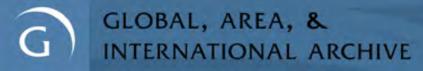
UC historian on sabbatical

## Collections: UC reclaims responsibility

- for scholarly products/assets and uniquely owned materials
  - original publication
  - research data
  - library-acquired content (shifts from licensed to special collections)



Bancroft Library



INIVERSITY OF CALIFORNIA

open-access scholarship for a global network of readers and thinkers

## Special Collections: Described and Digitized

"Imagine a UC library with more than **half a million volumes**, carefully acquired and protected, many of them **singular or not commonly held** by others in the world.

Imagine the contents lining thirteen and a half miles from end to end—more than one Bancroft Library's worth of material—but **all of it invisible and inaccessible to users.** 

That library represents the self-reported aggregate of the **unprocessed backlog** of special collections and archives materials owned by UC. "

71,605 linear feet unprocessed: up to23.6 years to eliminate backlog

46,662 collections: 12% do not have a collection description

16,781 described collections: only 2% have associated digital items



## **New Collections**

- Better models for new works
  - eBooks models in flux
    - University presses asking 150% of print prices
    - Authors want a more flexible format/platform
  - Open Access
    - What does it really cost?
    - Who pays? A more diverse economy?
    - Rights management issues

## **Collections: Born Digital**

- Web-published
  - When sites are redesigned, when new administrations take office, or when organizations shut down, we witness the wholesale disappearance of information.
  - Studies of web citations are showing that up to half of the citations in scholarly journal articles can cease to function within four years. Even if a web citation still returns a page, there is no guarantee that you are looking at the same content the author cited.



"Our mission is forever" – Paul Courant

## **Collections: Faculty Created**



### **Recent Posts**

#### NEH Summer Institute at UCLA: Digital Cultural Mapping (June 18-July 6, 2012)

presner | December 16, 2011 | In Uncategorized

HyperCities Los Angeles Launches

NEH Summer Institute at UCLA: Digital Cultural Mapping (June 18-July 6, 2012)

by presher | December 16, 2011 | In Uncategorized

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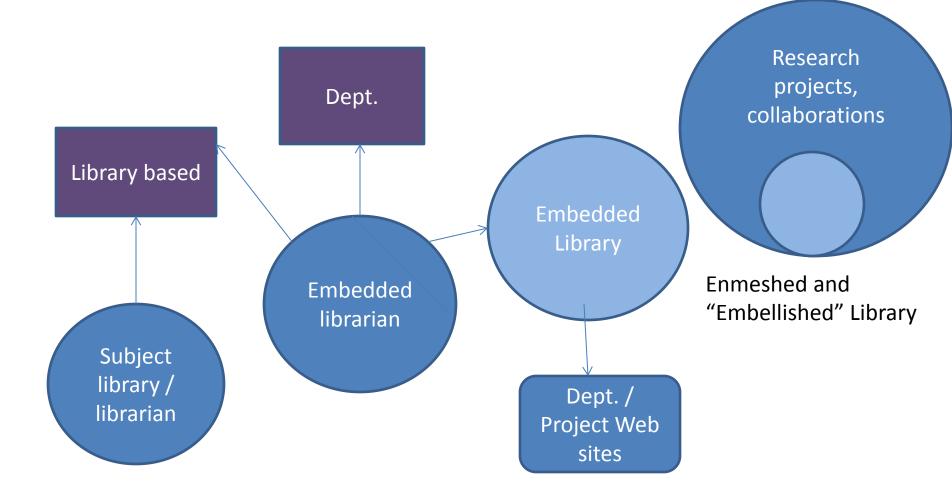
Directed by: Todd Presner, Diane Favro, and Chris Johanson





## A new subject library?

## An evolving model



## **Open** Folklore

HOME SEARCH BO

### 21K in HathiTrust

VLIT JOURNALS NEW

### Books

Open Folklore-now being created by the American Folklore Society and the Indiana University Bloomington Libraries-is a new scholarly resource that will make a greater number and variety of useful resources, both published and unpublished, available for the field of folklore studies and the communities with which folklore scholars partner.

#### Why Open Folklore?

While exciting recent developments in digital preservation and publication have positioned folklore studies to be a leader in scholarly

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Monographs and edited The collections are key to the development of folklore sore scholarship. Books produced by profolklorists document local cultural nor practices and are frequently of oth great interest to artists, tradition and bearers, and source The communities. Open Folklore the facilitates free access to a from growing number of books. Learn more eScholarship

### Gray Literature

Much of the work that folklorists produce falls into the category of what has been called gray literature: it is not widely accessible because it was never formally published or intended to be widely distributed. Learn more here Web Archiving Service

### Websites

There are many web sites devoted to folklore and folklife, some created by academic programs or public sector and non-profit organizations, and others developed by enthusiasts and amateur interest groups. There is much of value in all of these sites, but they all suffer from two problems that all web

re heir to. Learn more

### Journals

In folklore studies, scholarly journals are crucial. Peer-reviewed research articles as well as reviews of other scholarly works are essential to advancing knowledge in the field. Open Folklore facilitates free

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### OF News

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Technology Lead Garett Montanez Interviewed About his Open Folklore Work

21 Oct 2012 - 2:41pm The School of Library and Information Science at Indiana University recently interviewed alumnus and Open...

### Digest: A Journal of Foodways and Culture Relaunches as Open Access Title

27 Sep 2012 - 10: 23pm Many back issues of Digest, the journal of the Foodways section of the American Folklore Society Were:...

World Oral Literature Project, Open Book Publishers and UnGlue. It Release New, Open Edition of Oral Literature in Africa.

## Open Folklore

#### HOME SEARCH BOOKS WEBSITES GRAYLIT JOURNALS NEWS ABOUT OF AFSETHNOGRAPHIC THESAURUS

### Harvested Content Available for Open Folklore Search

As of its initial release, the search function in Open Folklore provides integrated search of the following journals and repository-based folklore collections:

Folklore Studies-Related Collections in the IUScholarWorks Repository, Including:

- American Folklore Society Publications (Selected)
- · Publications and Other Materials of the Indiana University Department of Folklore and Ethnomusicology
- Folklore and Folk Music Archivist Backfiles
- Fund for Folk Culture Publications
- New Directions in Folklore Backfiles
- Publications from Trickster Press, Including:
  - Folklore Forum Backfiles (Including Special Series)
  - Selected Trickster Press Books

and Other IUScholarWorks Repository Hosted Materials of Likely Interest to the Folklore Studies Community.

Folklore Studies-Related Journals Published Through the IUScholarWorks Journals Program, Including:

- Anthropology of East Europe Review
- Museum Anthropology Review
- New Directions in Folklore

### OF News 🛛 🔊

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### **Featured Article**

Do Frogs Get Their Kicks on Route 66? Continental U.S. Transect Reveals Spatial and Temporal Patterns of Batrachochytnum dendrobatidis Infection

Traveling along U.S. Highway 66 and U.S. Interstate 64 from California to Virginia, researchers found that a fungus that is detrimental to amphibians is more or less present from coast-to-coast.



### **Recently Added Articles**



Microbiology of the phyllosphere: a playground for testing ecological concepts Katrin M. Meyer, Johan H. J. Leveau Oecologia | Added 2012 March 19

### Curators & Steering Committee



Patricia Miloslavich is a professor of marine biology at the University Simon Bolivar (USB) in Caracas, Venezuela.

oil warming alters oitrogen cycling in a New England forest; implications for ecosystem

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## Biodiversity

## Curatorial role – PLoS Hubs

- The vision behind the creation of PLOS Hubs is to show **how open-access literature can be reused and reorganized, filtered, and assessed** to enable the exchange of research, opinion, and data between community members.
- PLOS Hubs: Biodiversity provides two main functions to connect researchers with relevant content.
  - …open-access articles on the broad theme of biodiversity are selected and imported into the Hub.
  - ...the content will also be enhanced so that the articles are connected with data, and we will provide features to make the articles easier for people to use.
  - These two functions aggregation and adding value build on the concept of open access, which removes all the barriers to access and reuse of journal article content.
- As examples of the added value that we plan to deliver via PLOS Hubs, we have enriched three articles with additional publicly available information such as a taxonomy hierarchy, species images and descriptions, and maps with specimen overlays. All the articles also feature information on the number of Hubs page views, and PLOS articles display their full suite of article-level metrics.

Librarians – and graduate students – can also contribute these curatorial skills, moving from care-taking to contextualizing

## Combined with a special library...

BHL **Biodiversity Heritage Library** 



Mailing List

Frowse By: Titles | Authors | Subjects | Map | Years | Languages | Contributors | Collections



**BioDivLibrary The annual** @NYBG #orchidshow opens 2day! ow.ly/i8hNM See 1000s of orchids, incl. Cymbidiums ow.lv/i8i1C #bhlib 1 days ago · favorite

Welcome to the Biodiversity Heritage Library, a consortium of natural history and botanical libraries that coo biodiversity held in their collections and to make that literature available for open access and responsible use as a part of foundational literature component of the Encyclopedia of Life (EOL).

	Q Search Tips
earch	

Advanced S

#### Today's Picks View additional images on BHL's Flickr stream



Feedbac

## ...and specialized museums

HOME CALENDAR BROWSE SEARCH

EDUCATION

#### About BNHM

BNHM Intranet Contact Information Informatics Genomics Mission Statement Grad Student Info Origins Org Chart (pdf)

Education Projects

BioKeys Science Cafe Paleoportal GK-12 Project Understanding Evolution Research Projects

Global Change Mapping / GIS CA Biodiversity Ctr

### Berkeley Natural History Museums

The Berkeley Natural History Museum collections total over 12 million specimens and represent the most complete holdings of living and extinct California flora and fauna.

#### view past headlines

#### AmphibiaWeb featured on Scientific American Website



The video feature on the Scientific American Website focuses on Dave Wake, amphibians, and AmphibiaWeb. Of particular note is the recording of the 3,000th species on the AmphibaWeb pages.

View the video on the Scientific American Website.

(posted on August 30th, 2012)

### Scientists Look to Past to Predict Future



100 years.

New grants from the W. M. Keck Foundation will and the Gordon and Betty Moore Foundation will help BNHM scientists build datasets and informatics tools to help understand past changes in climate, which will in turn aid in forecasting future changes in climate. One of the goals of this much needed funding will be used to digitize specimens collected in the museums dating over the last

Read more about this project at the Berkeley NewsCenter.

#### Member Museums



Essig Museum of Entomology



Museum of Vertebrate Zoology



Phoebe Hearst Museum of Anthropology



UC Museum of Paleontology



University and Jepson Herbaria



UC Botanical Garden



Human Evolution Research Center





Blue Oak Ranch Reserve



Heath and Marjorie Angelo Coast Range Reserve





## Tools



### Research + Tools

Developing publications and applications to define digital humanities for a new generation of scholars, librarians and museum professionals.



#### Zotero

Zotero [zoh-TAIR-oh] is a free, easy-to-use Firefox extension to help you collect, manage, and cite your research sources.

Learn More | <u>Visit the Site</u>



#### Omeka

Designed for cultural institutions, enthusiasts, and educators, Omeka is a platform for publishing online collections and exhibitions.

Learn More | Visit the Site



### Text Mining

Beginning in June 2008, CHNM will conduct a two-year study of advanced text-mining technology for the humanities.

Learn More | Visit the Site

## Tools: Solve the Browse Problem

### How BrowZine<sup>™</sup> Works



### CONSOLIDATE MULTIPLE DATABASES OF JOURNALS INTO A SIMPLE BROWSABLE NEWSSTAND

BrowZine<sup>™</sup> combines individual articles from databases to create complete journals and arranges them in an intuitive newsstand, then delivers these journals to patrons in an easy to use format optimized for the iPad. The result is an intuitive way for users to browse journals by subject, discover new titles, and easily read articles.

### SHORTEN THE DISTANCE BETWEEN THE USER AND THE CONTENT

At a time when more and more libraries are opting for e-only access to scholarly journals, the experience of browsing a library's collection of new issues to keep up with the latest research trends is an awkward task requiring setting up alert systems, RSS feeds and other clumsy technologies on multiple platforms.

By making content available in an easy to view, browsable format, libraries are able to pull away the layers of technology between the user and content. Each reader can create a personal bookshelf of favorite journals and BrowZine will soon be able to deliver convenient push notifications to indicate when new material is published.





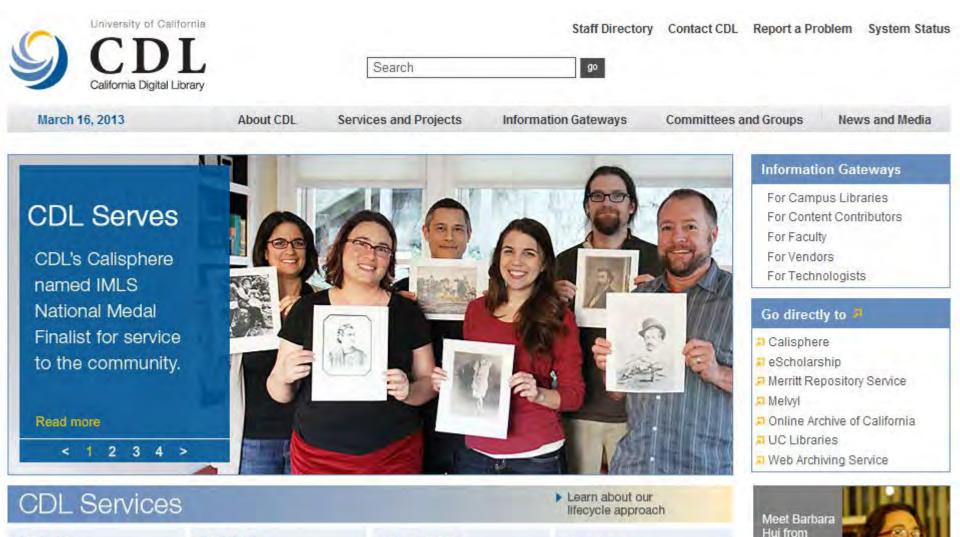


# A flexible infrastructure of hardware, software, and above all human talent

D-Lab, "Intelligent research design for data intensive social science"



## Comments?



### Collect

Licensed Resources, Shared Print, Mass Digitization, Digital Special Collections, OAC

### Publish

eScholarship, UC Publishing Services, UC Press E-Books, Publishing Tools & Technologies

### Preserve

UC Curation Center, Microservices, Consulting, Preservation Repository, Web Archiving

### Access

MelvyI<sup>™</sup>, UC-eLinks, Resource Sharing, Discovery and Delivery Tools Publishing and Access