Case Study: The California Digital Library

2nd Workshop on the Open Archives Initiative: Gaining Independence with e-prints archives and OAI

October 2002, CERN

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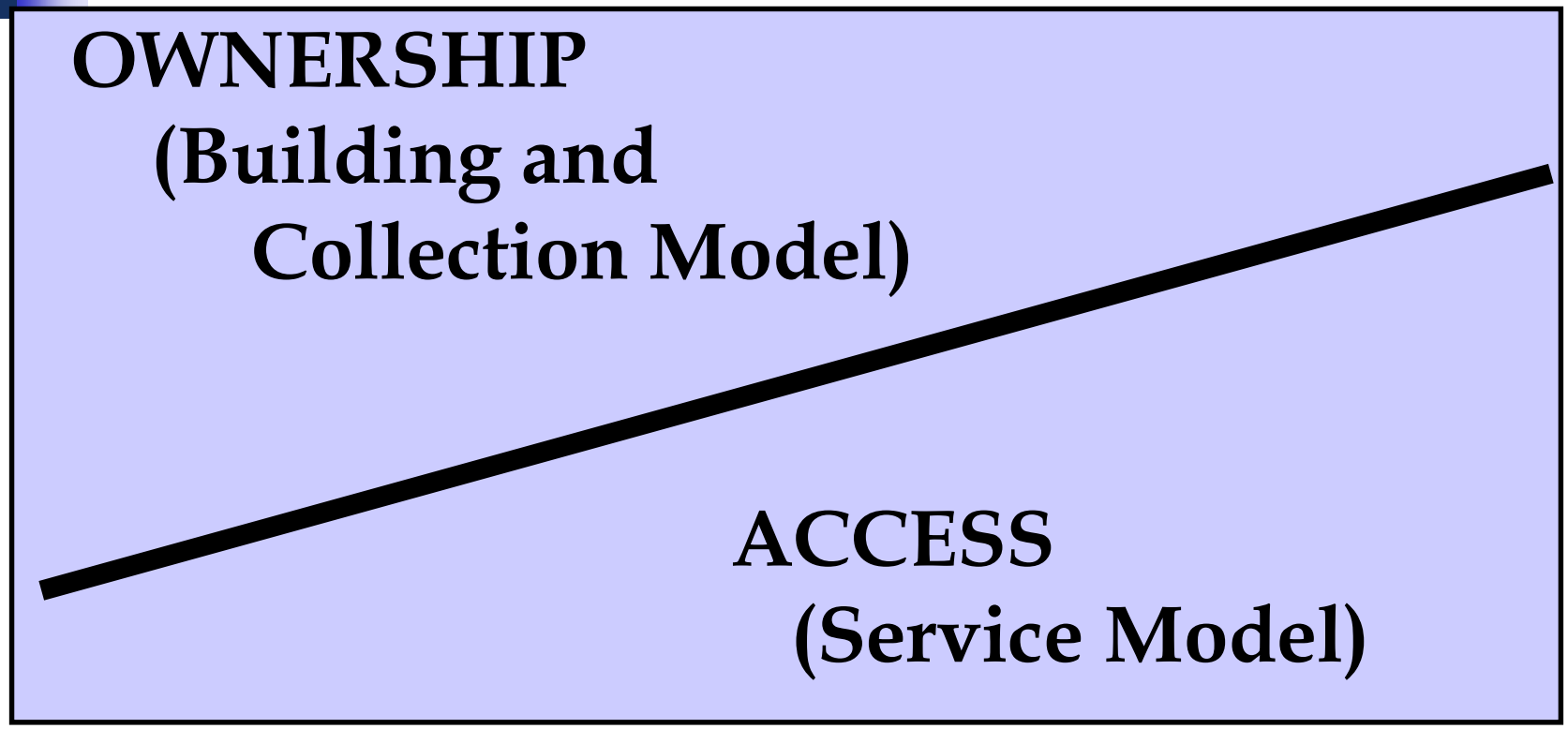
California Digital Library
www.cdlib.org

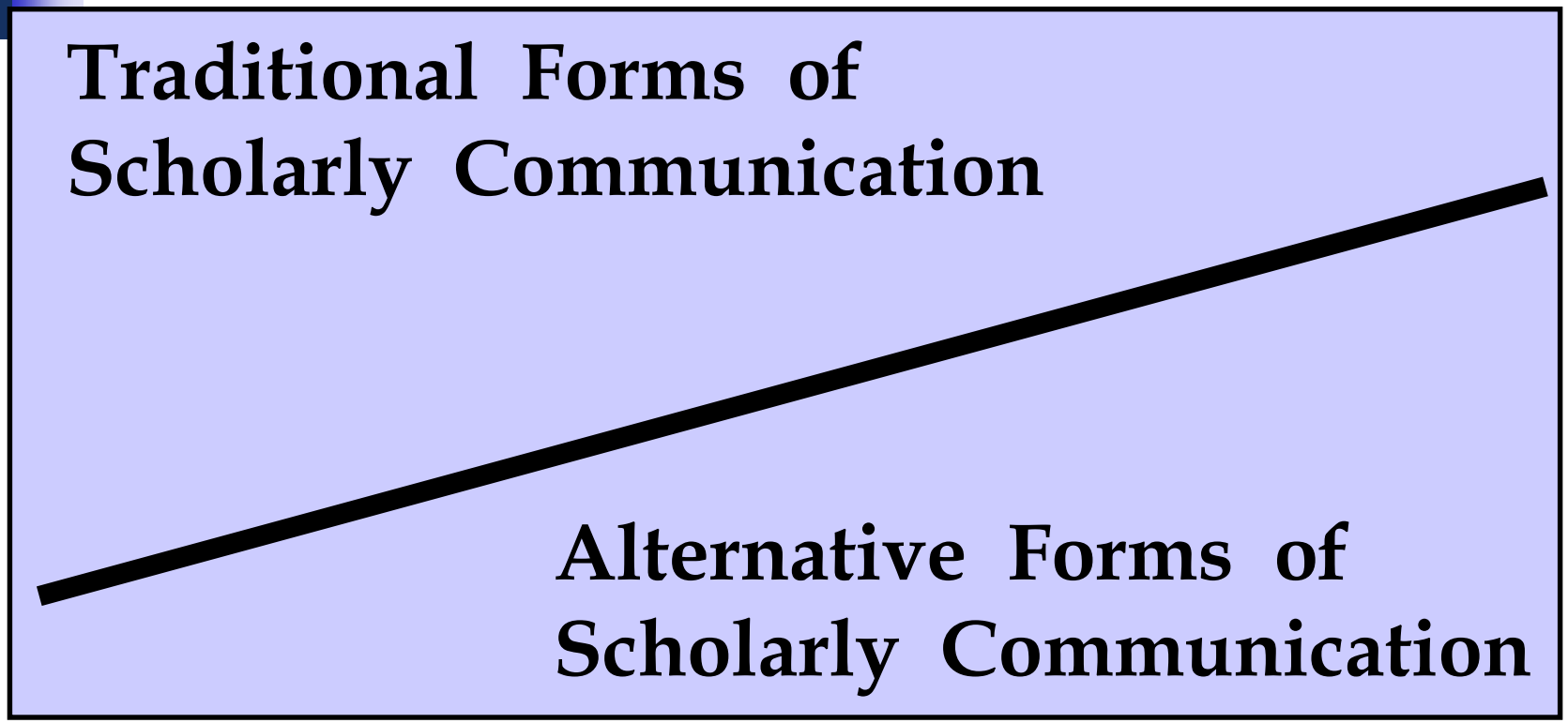
CDL History

- Founded in 1997; digital "co-library" of the 10 Univ. of California campuses
- Response to ***crisis*** in scholarly communication and the ***opportunity*** presented by digital technologies and the Web
- Charged to create a **comprehensive system for the management** of digital scholarly information
- *"...and facilitating and supporting scholar-led innovations in scholarly communication."* (CDL mission statement)

Challenges, opportunities



Challenges, opportunities



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CDL Overview

- $14 million budget
- 50 employees on site; ~10 on campuses
- Digital resources
  - 200 databases licensed
  - ~6 locally-hosted databases incl. 24 million record catalog
  - 7000 online journals licensed
  - ~200,000 images and documents hosted
  - ~ 2500 social science data sets
- ~25 million searches/year on hosted data

CDL's eScholarship Program was started to:

- Monitor emerging technologies and experimental applications
  - Use of repositories in physics, economics, etc.
  - XML/structured text, etc.
- Understand needs of scholars and researchers
  - Readiness to experiment, desire to enhance communication, to lower barriers to access
  - Concern with Peer Review and Permanence of the scholarly record

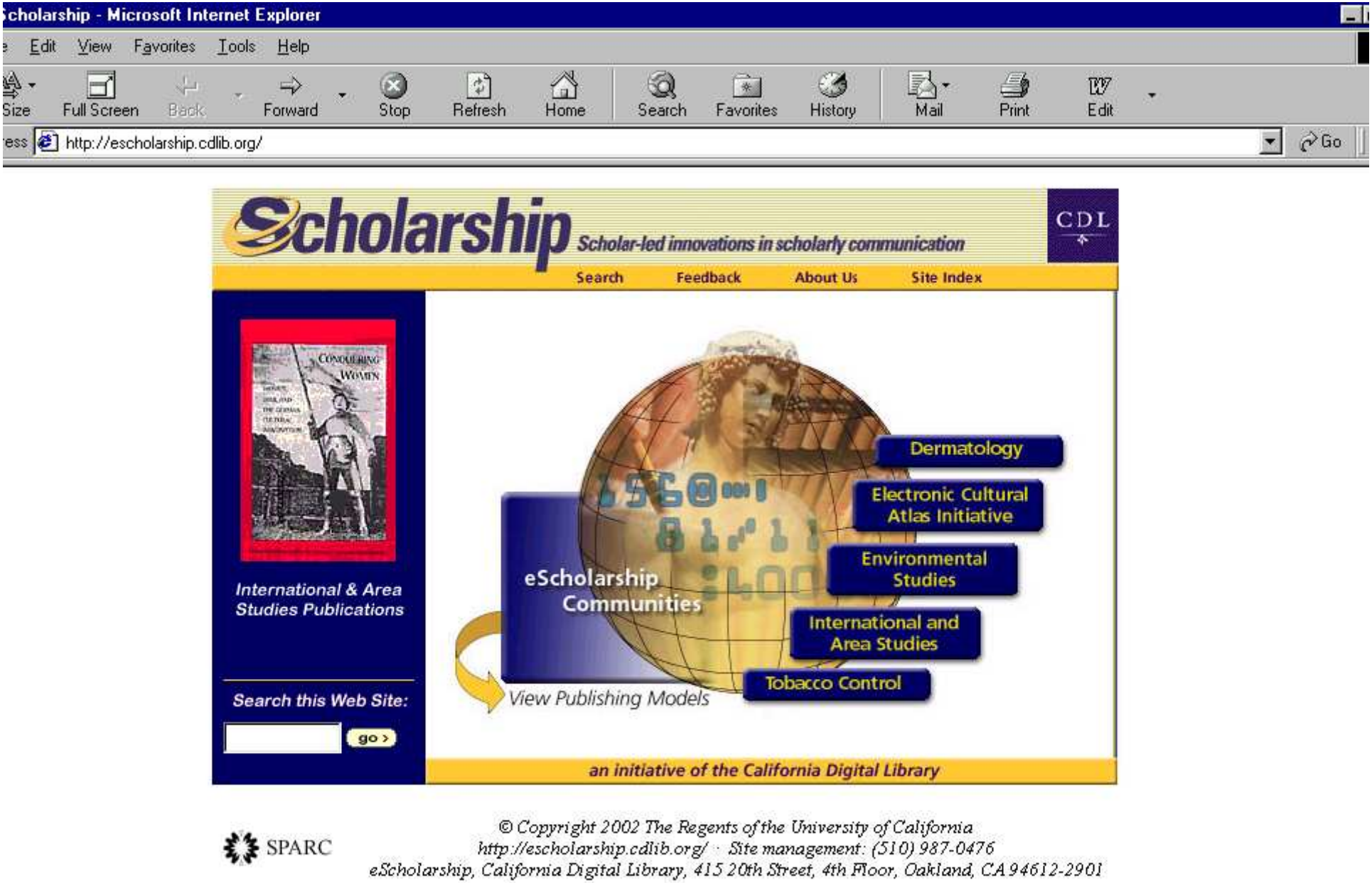
Conclusion: Experiment w/components of scholarly communication

eScholarship: *Use of technologies*

- *Traditional: familiar things in better way*
  - Digitally reformatted Books
  - Digital Journals
  - New digital monographs
- *Experimental: newer things…*
  - Discipline-based Digital Repositories for self-submission and self-archiving
  - Standards-based metadata and data sets to ensure interoperability
  - "Publication" of [Dynamic] Digital Data Sets

eScholarship: *Discipline-based experiments*

- Repository of Working Papers in Social Sciences and Humanities
- [California] International and Area Studies: Digital pub of monographs from repository articles; new business model
- Dermatology Online Journal and eNvironment: enhancements to journal articles, supplementary material
- Optical Society of America (w/ Univ of Cal Press) multi-part digital and print reference work



SPARC

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http://escholarship.cdlib.org/ · Site management: (510) 987-0476
eScholarship, California Digital Library, 415 20th Street, 4th Floor, Oakland, CA 94612-2901

eScholarship:
Collaborations & Partnerships

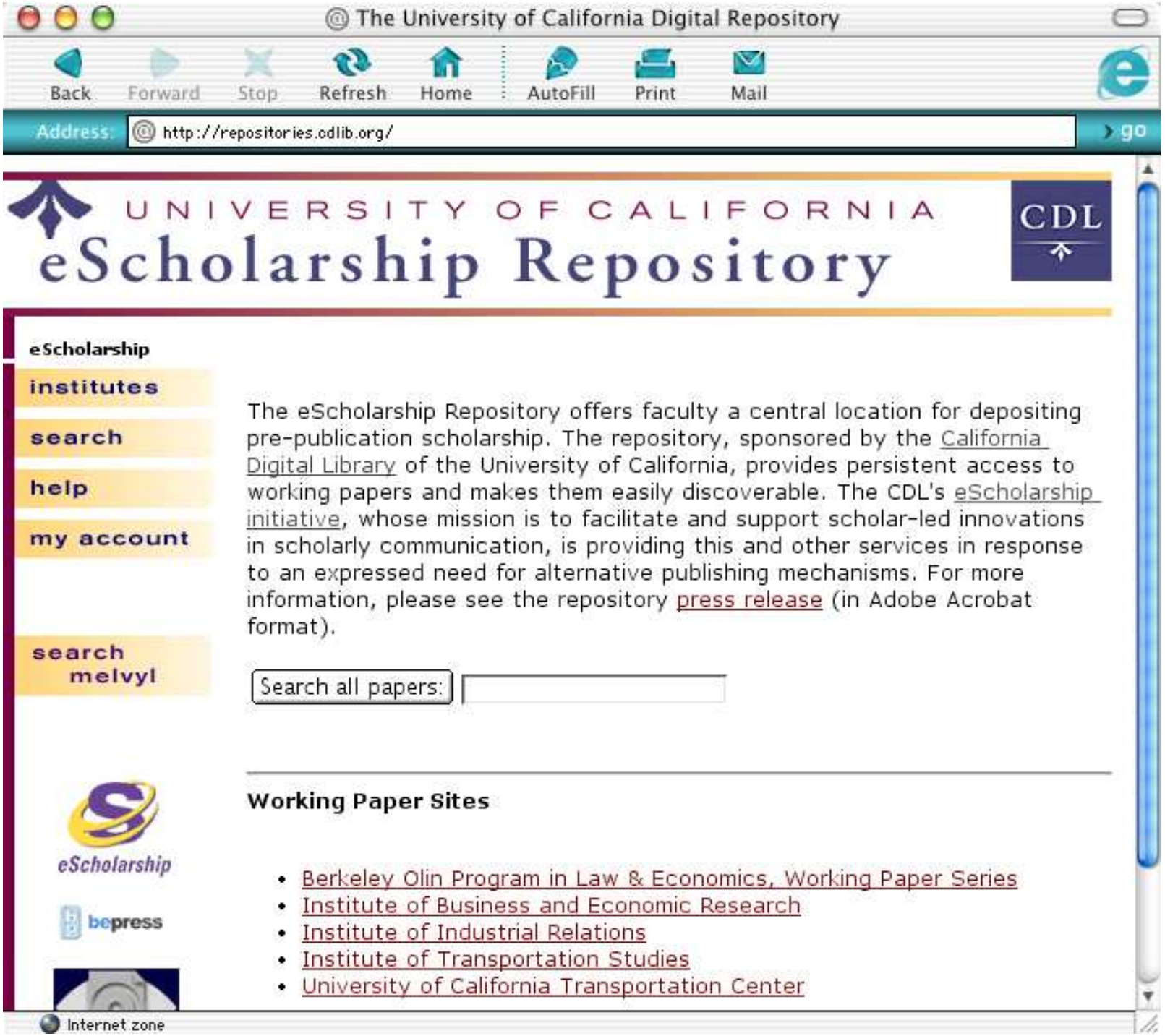
- University of California Press: leverage their expertise (editing, business models)
- SPARC: grant supports experiment to use adv tech to communicate in new ways
- bepress: toolkit for peer review journals; co-developing tools for digital repository

bepress

- UCB faculty start-up company
- EdiKit: Web-based peer review journal software. Features include:
  - Easy article submission process
  - Assignment and tracking of reviewers
  - Automatic email notifications
  - Pre-publication review process
  - Publication of single articles or entire issue

CDL & bepress

- CDL has two relationships with bepress:
  - license for their EdiKit software for e-journal, e-book, and working paper repository publication and management
  - A co-development agreement that enables CDL to specify future enhancements
- CDL positioned to take a commercial-grade product and tailor it to library needs (e.g., interoperability with other repositories using OAI)


The University of California Digital Repository
Back
Forward
Stop
Refresh
Home
AutoFill
Print
Mail
Address:
http://repositories.cdlib.org/
go
UNIVERSITY OF CALIFORNIA
eScholarship Repository
CDL
eScholarship
institutes
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The eScholarship Repository offers faculty a central location for depositing pre-publication scholarship. The repository, sponsored by the California Digital Library of the University of California, provides persistent access to working papers and makes them easily discoverable. The CDL's eScholarship initiative, whose mission is to facilitate and support scholar-led innovations in scholarly communication, is providing this and other services in response to an expressed need for alternative publishing mechanisms. For more information, please see the repository press release (in Adobe Acrobat format).
Search all papers:
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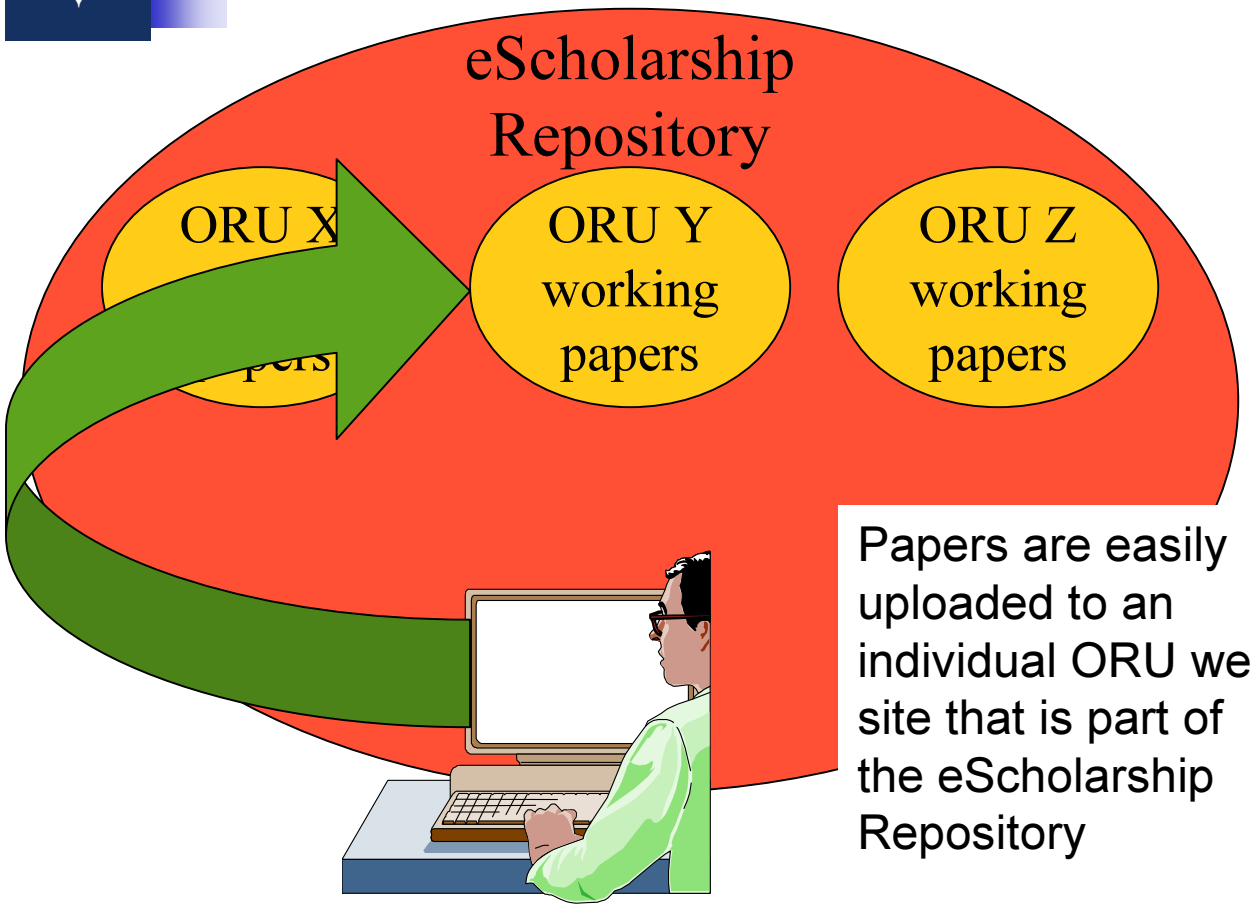
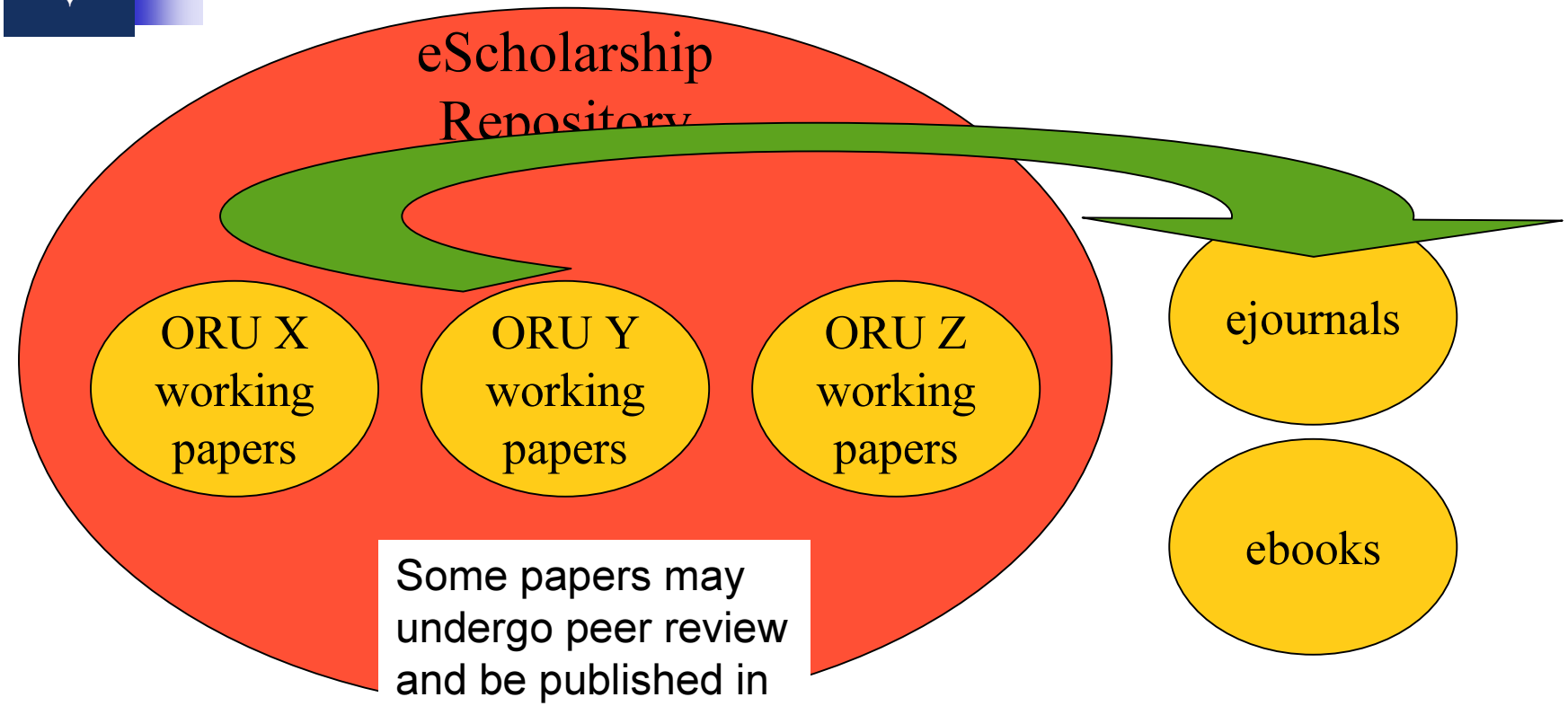
Repositories: Faculty Perspective

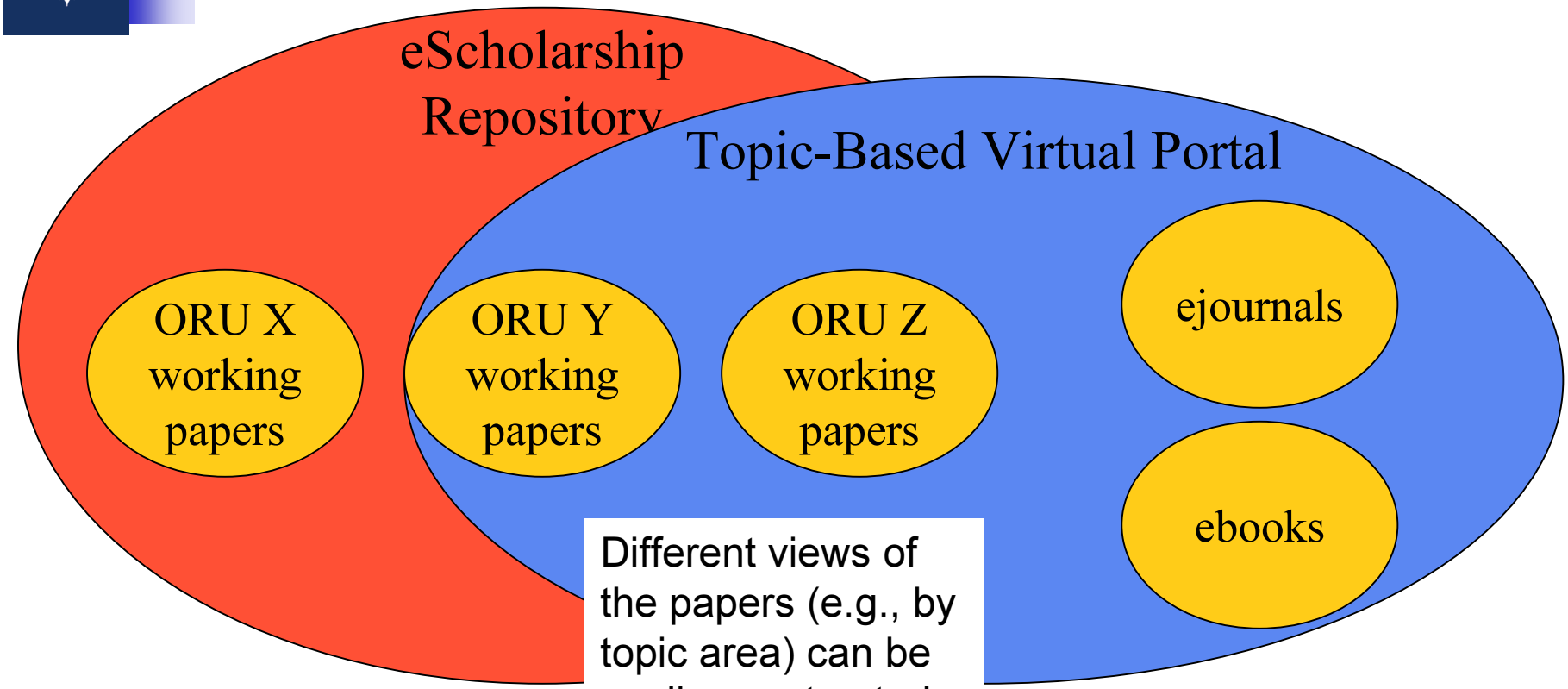


Papers are easily uploaded to an individual ORU web site that is part of the eScholarship Repository

Repositories: Faculty Perspective



Repositories: User Perspective



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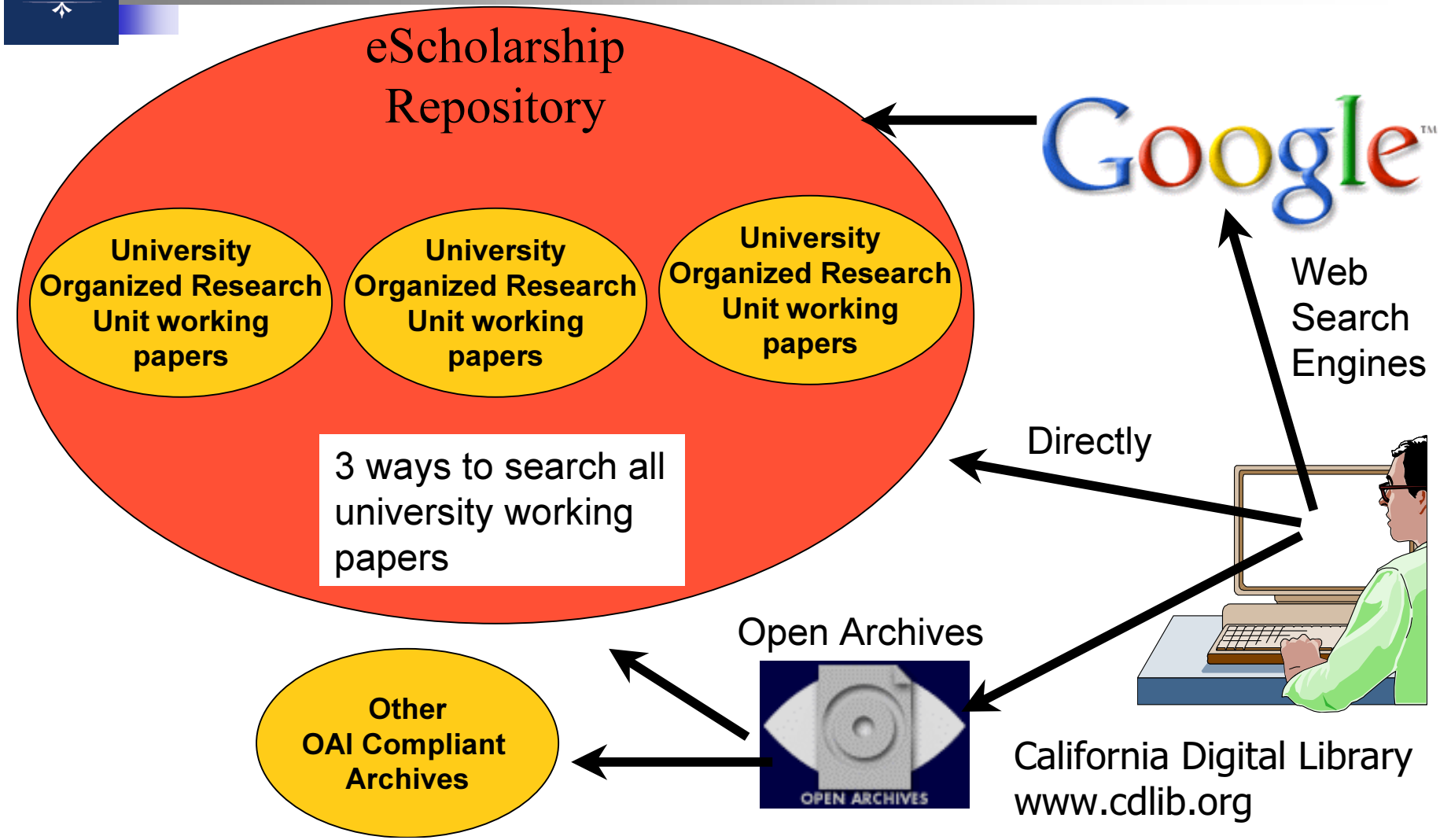
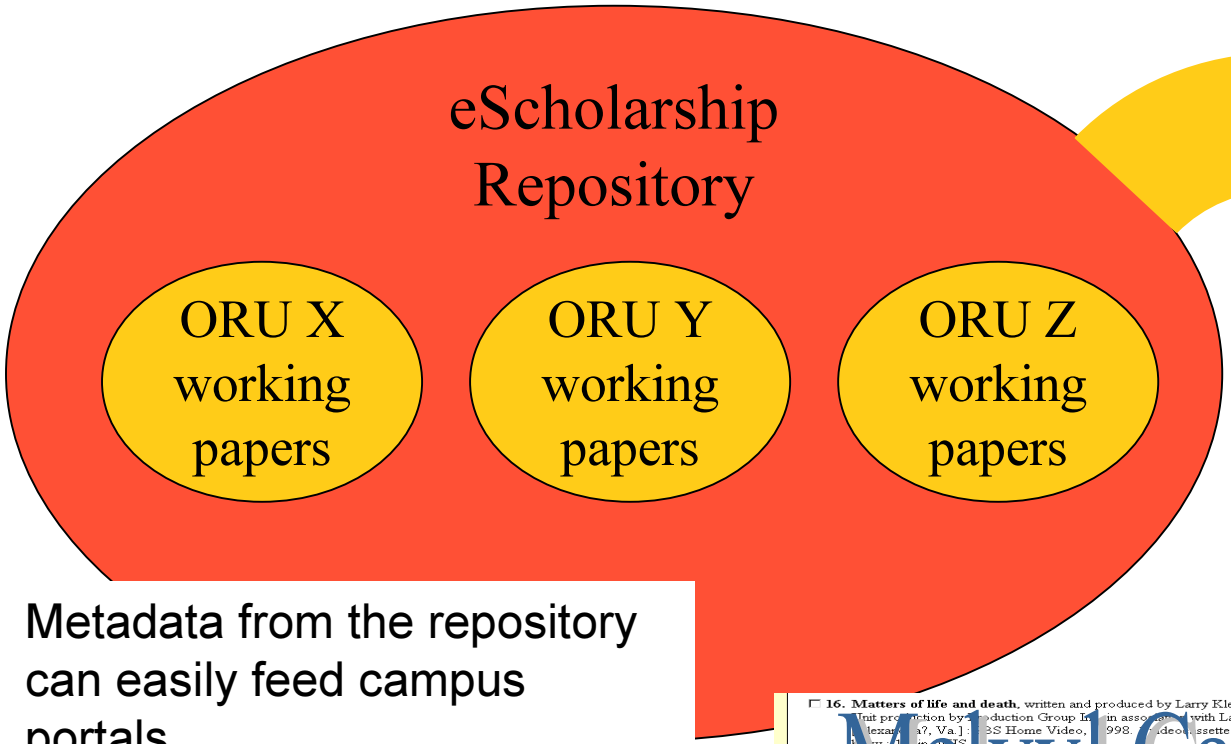


The Solution: University Perspective



Descriptive information on available papers

Metadata from the repository can easily feed campus portals

eScholarship Repository

- Federation across arbitrary subsets as well as branding by source
- CDL's commitment to maintain over time (cf: CDL's preservation efforts)
- Formats can be normalized -> structured text
- Lowers entry barriers for digital publication
- Competition for commercial pre-print ventures with pay to deposit and pay to subscribe

Putting pieces together

- EdiKit: working paper repositories; journal and anthology publication; “data rescue” (from faculty websites)
- CDL’s XML/METS based content management system: book publication; comprehensive object searching; preservation

Plus

- Open archives initiative

Equals

- Flexibly managed content ready for inclusion in wider services; ready to seed UC-built services

CDL's Use of OAI

- All eScholarship objects are available through OAI harvesting
- All non-restricted CDL objects are (or soon will be) available through OAI harvesting (e.g. EADs, digitized objects)
- CDL uses OAI to harvest metadata from collection X for inclusion in a CDL access service across collections
- CDL may build OAI-based services (e.g. Social Science scholarship repository)
- CDL is helping/encouraging UC campuses to become data providers and service providers (e.g. UCLA music; UCSF tobacco control)

Organization and policies for collaboration, innovation

- **Funds** – *sought commitment from President, aggressive grant proposal writing, co-investment formulas*
- **Staff -** *invent jobs, aggressive staff development and skills inventorying, borrow staff from partners*
- **Understanding faculty** – *~45 focus groups; senior staff spend ~50%+ of their time communicating/visiting*
- **Technology -** *standards AND leaps of faith, formal advice, open-source, outsourcing*
- **Organization and procedures -** *team/matrix structure; invent policy*

Surface challenges – One organization innovating for scholarly communication

- Acquire expertise
- Assess user needs, declare priority actions
- Design projects and workflows
- Acquire technology
- Fund development

Deeper challenges

- Acquire expertise Maintain and refresh expertise
- Assess user needs, declare priority actions Become scholar-centered (rather than content or technology centered), refresh and revise systems
- Design projects and workflows Design an adaptive, learning organization
- Acquire technology Build or buy technology?; transfer technology, engage in research?
- Fund development Fund collaboration (high overhead), fund contextual activities (public relations; OAI)

Surface challenges – goals for scholarly communication

- Show scholars the benefits in joining
- Build data provider and service provider software
- Build ancillary services (citation referencing, ranking, etc.)
- Increase the number of participants
- Convince administrators to fund infrastructure

Deeper challenges

- Show scholars the benefits in joining/ Find/cultivate scholars who lead the innovation
- Build data provider and service provider software/Integrate across information and access silos
- Build ancillary services (citation referencing, ranking, etc.)/Influence reward system
- Increase the number of participants /Address scale, scope and interoperability issues
- Convince administrators to fund infrastructure /Test and establish viable business models

I’m finished