Faculty Publications                                                    School of Information

March 2006

# Commons-based digital libraries

Anita Coleman
*University of Arizona*, charis.coleman@gmail.com

# Commons-based digital libraries

Anita Coleman
University of Arizona

Brown Bag, SLIS, Indiana University
31, March 2006
Bloomington, IN

# Overview

Commons-based digital libraries are an emerging phenomenon.  They are based on a new vision of digital information organization and use.  A definition of commons-based digital libraries, some examples, fundamental characteristics, emerging information behaviors, and preliminary results from a scholarly communication survey of LIS faculty will be presented.

# *Not just a matter of time...*

- *"Digital disciplinary corpora"*
- *"Open flow fields" and "closed flow fields" (chastity belts – peer review)*
- *"Communicative plurality and communicative heterogeneity are durable features in the scholarly communication landscape"*
  - *Kling & McKim (2000)*
- *"Action agenda"*
  - *Robbin (2005)*
- *"Distributed cognition"*
  - *Cronin (2004) & Cronin, Shaw & La Barre (2003)*

# The phenomenon is:

- *a global, trusted, open, commons-based digital library*
- *for the solution of large-scale problems;*
- *collections and communities are multi-disciplinary; resources include peer-reviewed research articles and diverse, digital objects of scholarship (datasets, learning objects);*
- *cyber-infrastructure and emerging behaviors such as scholarly self-archiving and end-user classifying facilitate peer organization, use, and peer production of knowledge.*

# Characteristics

- Global – users can be anywhere in the world
- Trusted – document and author certification
- Open – no economic or legal restrictions
- Standards – Metadata, Document formats

# Characteristics (contd.)

- Solving a problem – global and large-scale

- Peer production of knowledge

- Peer organization of knowledge

- Multiple uses/reuses of information

  - Sustainable information behaviors

    - Principle of least effort – citation bias

    - Authentication

    - Certification/Quality control (refeereable quality)

# Examples and Non-examples

- ✓ *Conservations Commons*
- ✓ *Public Library of Science*

- ✗ *Gutenberg Texts*
  - ✗ *Ascii texts*
- ✗ *Greenstone*
  - ✗ *Software*
- ✗ *California Digital Library*
  - ✗ *Hybrid library*

**dLIST**

Digital Library of Information Science & Technology

Firefox Help    Firefox Support    Plug-in FAQ    DLIST -    DL-Harvest: Home    Anita Coleman    DL-Harvest: Home

small text    normal text    large text

# conserve online

search    publish    discuss    collaborate

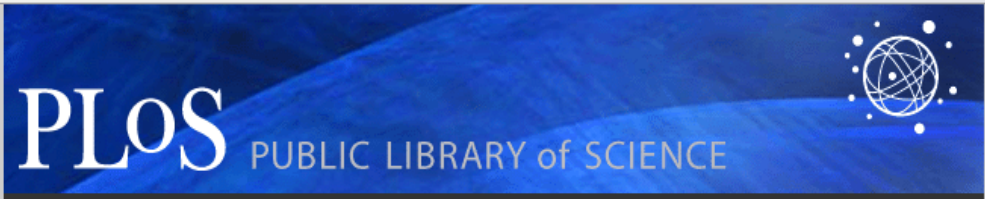you are here: home » about

## About ConserveOnline

**ConserveOnline** is a "one-stop" online, public library, created and maintained by The Nature Conservancy in partnership with other conservation organizations. The library makes conservation tools, techniques, and experience available to a broad community of conservation practitioners. This site is intended to foster learning and collaboration, and provide information and support to anyone making conservation-related decisions, from the staff of conservation organizations to land managers at government agencies to local land trusts to private landowners. Through discussion groups and information sharing, ConserveOnline is an open forum for sharing successes and failures, and for connecting scientific research with field-based conservation practice. We welcome anyone with documents, data, maps, or images relevant to the science and practice of conservation to make these resources publicly available through ConserveOnline, and to share their expertise through the discussion groups.

This new version of ConserveOnline features a major overhaul of the user interface and the underlying technology. More features will be added gradually and there will be plenty of opportunity for feedback. Please note: we perform regular maintenance on ConserveOnline every Wednesday morning, between 7-8AM, Eastern time. ConserveOnline may be briefly unavailable during that time.

More information about:

- The Nature Conservancy

- Collection of Conservation Websites

- GIS collection

- Partners who have contributed to ConserveOnline

- ConserveOnline technologies

### navigation

- ConserveOnline Home
- Browse Library
- Collaborate / Workspaces
- Help

### member log in

- Log in
- Forgot your password?
- Join as a new user?

About Us | News@ConserveOnline | Contact Us (Feedback Form) | Scientific Journals | Partners | Privacy Statement | Disclaimer

ConserveOnline is sharing 1460 documents and is part of the Conservation Commons.

PLONE POWERED

Done

# PLoS  PUBLIC LIBRARY of SCIENCE

PLoS BIOLOGY    PLoS MEDICINE    PLoS COMPUTATIONAL BIOLOGY    PLoS GENETICS    PLoS PATHOGENS    PLoS CLINICAL TRIALS CALL FOR PAPERS

**The Public Library of Science (PLoS) is a non-profit organization of scientists and physicians committed to making the world's scientific and medical literature a freely available public resource.**

The Public Library of Science (PLoS) seeks to catalyze a change from traditional subscription-based scientific and medical journal publishing to open access publishing. We work toward our goal by publishing our own open access journals and through advocacy for open access among producers and consumers of the scientific and medical literature.
*Find out more about our journals and what you can do with our content.*

Open access publishing takes advantage of the ability to exchange information more efficiently and creatively via the Internet, allowing barrier-free access to scientific and medical information for a global audience. If you are a scientist, doctor, patient, teacher, student, policy maker, or world citizen with an interest in science and medicine, you should know about open access.
*Learn more about open access.*

Support PLoS

PLoS is part of the global open access movement, which includes Nobel laureates and other scientists, major funding agencies, publishers, librarians, patient advocacy groups, lawmakers, and many others.
*Find out more about how you can support PLoS and the open access movement.*

PLoS has a number of different projects and products. Like the rest of the world, we are constantly evolving. All our activities are guided by our core principles.
*More about PLoS' core principles.*

# dLIST

- An open access archive
- Information Sciences
  - Archival Science, Information Systems, Library & Information Science, Museum Informatics
- In production (service)
- Testbed - Information Technology & Society Research Lab

# DL-Harvest

- Open Access Aggregator & Metadata Search
  - 13 archives
    - @rchiveSIC
    - ArXiv.org
    - E-LIS
    - OCLC Research Repository
- Subject-based discipline service
- Commons-based digital library

# Objectives

- Connecting research, education and practice communities globally in the related but disparate Information Studies
- Research on issues critical for supporting sustainable information behaviors
  - Barriers to open behaviors
- Resolution of organization and technological issues underlying the digital libraries-digital repositories-digital commons phenomenon
  - Adaptability, extensibility, and sustainability of open technologies

# LIS Scholars – Schol Comm Study

- Survey conducted in Oct/Nov. 2005
- Online survey
- Overarching Research Question: *How does the LIS field practice open access?*
- Instrument adapted from Swan & Sheridan (2005). Available in dLIST.

|  | Abstracts | Downloads | |
|---|---|---|---|
| Views | 450 | 115 | |

**Views by country (derived from IP address of query) for all years**

| Country | Abstracts | Downloads | |
|---|---|---|---|
| United States | 239 | 49 | |
| unknown | 149 | 26 | |
| Canada | 9 | 8 | |
| Europe | 1 | 8 | |
| Spain | 6 | 5 | |
| Iceland | 7 | 4 | |
| China | 4 | 3 | |
| Poland | 2 | 2 | |
| Sweden | 2 | 2 | |
| Portugal | 1 | 1 | |
| Brazil | 1 | 1 | |
| Japan | 2 | 1 | |
| Czech Republic | 3 | 1 | |
| Korea, Republic of | 2 | 1 | |
| France | 1 | 1 | |
| Netherlands | 3 | 1 | |
| Germany | 2 | 1 | |
| Australia | 6 | 0 | |
| Israel | 3 | 0 | |
| United Kingdom | 3 | 0 | |
| Switzerland | 2 | 0 | |
| Hong Kong | 1 | 0 | |
| South Africa | 1 | 0 | |

**History of views for this ePrint**

| Period | Abstracts | Downloads | |
|---|---|---|---|
| 2006 Mar | 113 | 25 | |
| 2006 Feb | 59 | 15 | |
| 2006 Jan | 104 | 15 | |
| 2005 Dec | 106 | 39 | |
| 2005 Nov | 68 | 21 | |

# Survey Questions

- Demographic Questions
  - Gender, Age group, professional title, geographic location, dLIST registration status, specialization, LIS school faculty
- Knowledge of self-archiving
  - Definition of self-archiving; major difference between a subject & institutional repository, examples
- Use of Research Information and Publishing Activities
  - E.g. How many articles published each year?

# Questions (contd.)

- Experience with Self-archiving (SA)
  - General self-archiver, dLIST self-archiver, Non self-archivers
    - General self-archiving behaviors
      - Motivations
      - Where, what version of work, what types of works
      - Mechanics (who, length of time SA practice)
      - Barriers
      - Expectations
  - Self-archiving behaviors in dLIST
  - Non-self-archiving attitudes and intentions
- Value of dLIST
  - Ranking services, content quality, effect, concerns, disadvantages of SA

# Results

- *How do LIS scholars practice open access?*
- 244 usable responses
  - 99 LIS faculty
- 126 completed the full set of responses
- Knowledge of self-archiving
  - Only 3 responses fit our rigorous definition of self-archiving: depositing a copy in an OAI-compliant archive; to others self-archiving ranged from publishing in a journal, saving hard drive files, uploading a copy to a personal webpage
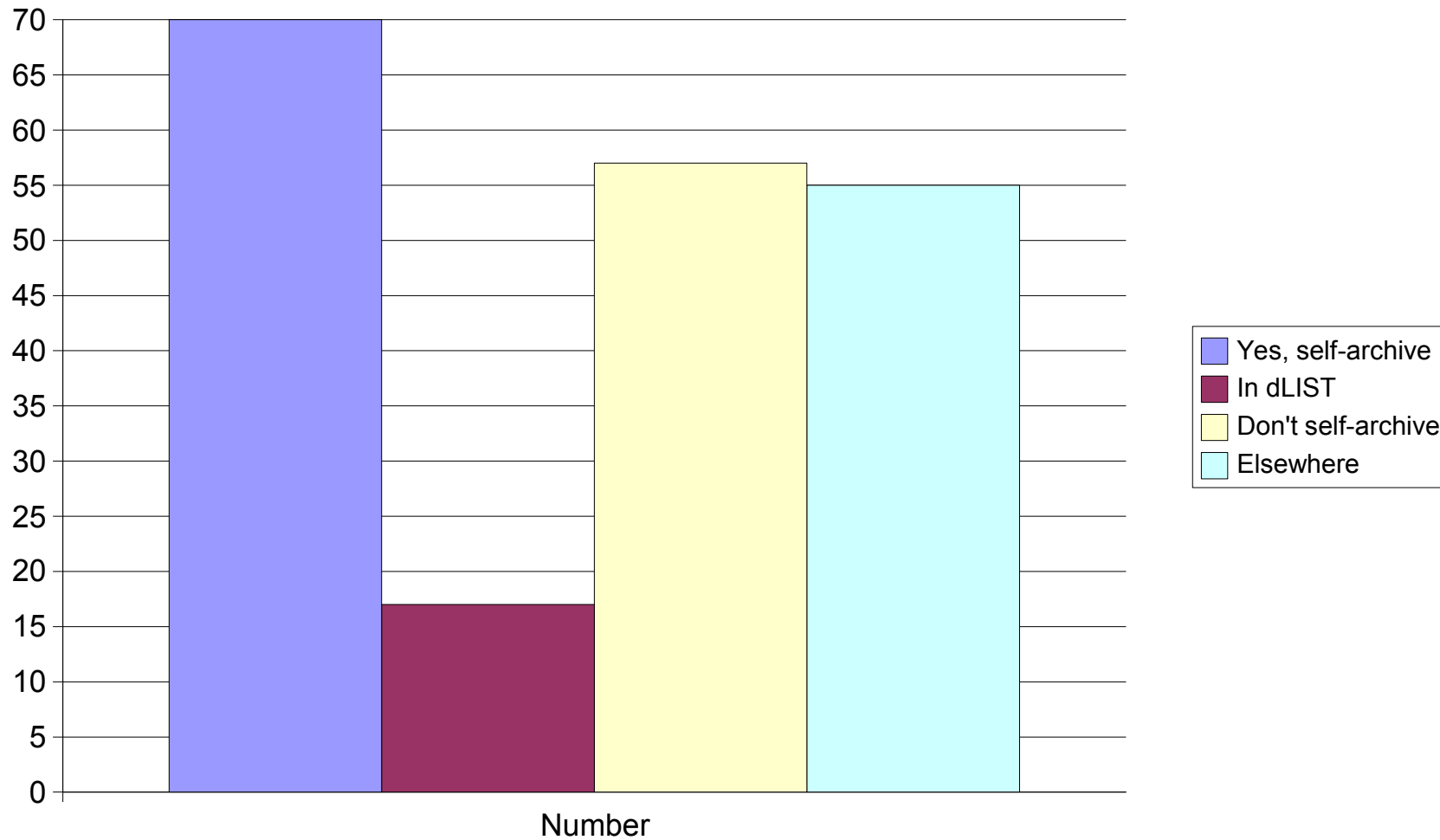
# Demographic results

- Participants were from Africa, Asia, Australia, Europe, North America; none from South America
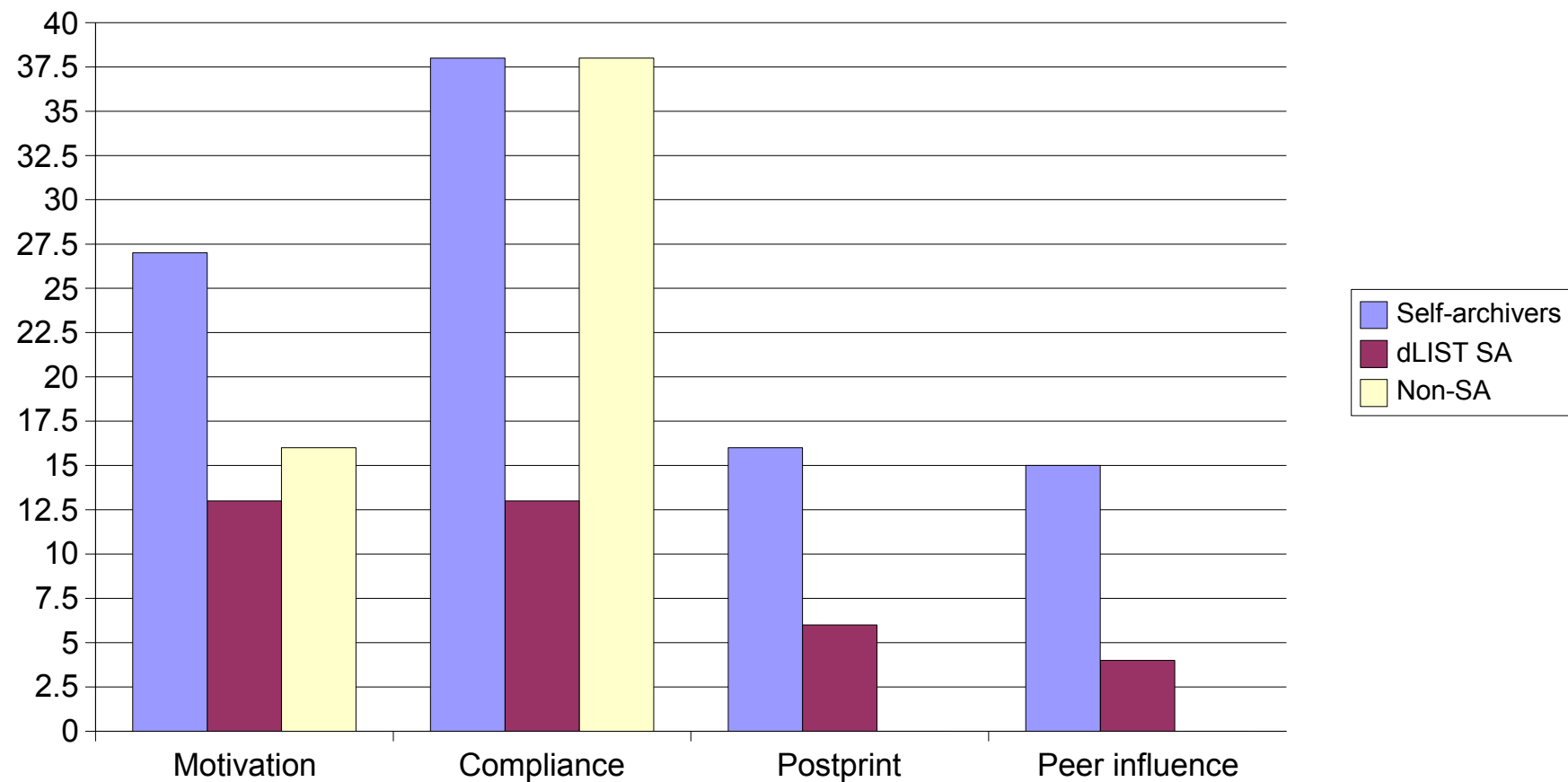- Specialization
  - Weird results

# Self-archiving behavior

- 54% (n=69) have self-archived at least once
- 13% (n=17) self-archive in dLIST
- 18% (n=23) self-archivers are LIS faculty in US & Canada
- 4.7% (n=6) LIS faculty self-archive in dLIST

# Self-archiving venue

# Attitudes of LIS scholars

# Barriers and Practices

- Barriers to Self-archiving
  - Neither copyright nor technology are barriers
  - Time is a barrier – even though majority say it takes only a few minutes to self-archive
- Self-archiving length of time
  - Relatively new practice – majority have engaged in self-archiving within the last one year
- Scholarly searching in closed archives
  - Majority used subject-specific full-text services
- Scholarly searching in open archives
  - Majority used *Google Scholar* (11 used *DL-Harvest*)

# Conclusion

- How does the field practice open access?
- Why is open access important?
  - Or better yet: what is the potential on an LIS Commons?
- Future research
  - Determine the potential size of the field
  - Impact + measures of value + usage statistics
    - LIS has a high rate of uncitedness; high rates of uncitedness are not uncommon but uncitedness provides one sort of an imperative to research/develop other measures

# dLIST Users

- When compared with general self-archivers and non self-archivers, dLIST SA show:
  - Greater awareness of the value of subject-based open access repositories (CBDL)
  - Ranked the importance of open access archiving, self-archiving, much higher
  - Similarly for services: aggregation, searching, alerts
  - Ranked copyright research and deposit services lower
  - Ranked quality higher
  - Less concerned about plagiarism, etc.

# No difference

- There was no difference among the three categories about the effect of self-archiving on the impact of one's research; that is, in roughly the same percentages and in the order as given below they agreed that
  - OA improves visibility, citation, official recognition of work, influences further work of others, immediacy of work, and lastly, replication / application of work.

# The dark side of open access

- Strong concerns about plagiarism and lack of credit
- Rare concern about not getting published in a journal because work is self-archived
- Lack of awareness about OAA as personal digital libraries – *Google* is it!
- Other issues (somewhat rare):
  - Proliferation of versions
  - Concerns about sharing – peer production of knowledge, improving quality, productivity of research is not necessarily a goal for everybody

# Conclusion

*How can I do it? What is it? Where can I get it done? Will I have <u>versioning</u> control? Do I lose <u>control</u> of the article after I post it? How do I <u>update </u>as information changes? How do people who are using the archive know that something has been updated on an article they have read in the past? How can I <u>create connections</u> between my articles, or between my articles and other people's articles? What kind of <u>visualizations and search interfaces</u> are used to get people to my articles? How are they abstracted? Can I write my own dLIST specific abstract for display/browsing purposes? <u>Who uses dLIST</u>? Why would anyone bother? Am I wasting my time by putting my article there? How <u>integrated with other services</u> is dLIST? Is it indexed by Google and other search engines? If not, why not? Are there other ways I can access articles in dLIST without disrupting <u>my workflow</u> by going to dLIST's webpage or whatever interface exists? How does it work? How is an <u>article's relevancy </u>to a particular search evaluated? How are search results returned?"*

# References

- Ginsparg, P. (1996).  Winners and losers in the global research village. http://people.ccmr.cornell.edu/~ginsparg/blurb/pg96unesco.html#current
- Kling, R., McKim, G. & King, A. (2003) A Bit More to IT: Scientific Multiple Media Communication Forums as Socio-technical Interaction Networks. *Journal of the American Society for Information Science,* 54(1), 47-67.
- Kling, R. & McKim, G.  (2000).  Not just a matter of time: Field differences in the shaping of electronic media in supporting scientific communication. *Journal of the American Society for Information Science* 51(14). http://xxx.lanl.gov/ftp/cs/papers/9909/9909008.pdf
- Robbin, A.  (2005).  Rob Kling in search of one good theory:  The origins of computerization movements.  Presentation at CRITO, UCI.
- Cronin, B., Shaw, D. and La Barre, K.  (2003). A cast of thousands: Co-authorship and sub-authorship collaboration as manifested in the scholarly literature of psychology and philosophy. *Journal of the American Society for Information Science* 54 (9): 855-879.

# More information

- Coleman, A. Self-archiving and the Copyright Transfer Agreements of ISI-Ranked Library and Information Science Journals. *Forthcoming, Journal of the American Society for Information Science and Technology*
- Coleman, A. and Roback, J. (2005). Open Access Federation for Library and Information Science. *D-Lib Magazine*, 1 (12): December. http://www.dlib.org/dlib/december05/coleman/12coleman.html
- Coleman, A. (2005). Instruments of Cognition: Use of Citations and Web Links in Online Teaching Materials. *Journal of the American Society for Information Science and Technology* 56 (4) February: 382-392.
- Coleman, A., Bracke, P., and Karthik, S. (2004). Integration of Non-OAI resources for federated searching in DLIST, an Eprints repository. *D-Lib Magazine*, 10 (7/8): July/August. http://www.dlib.org/dlib/july04/coleman/07coleman.html
- Coleman.A and Bracke.P (2003) "DLIST: Building an International Scholarly Communication Consortium for Library and Information Science", *CALIBER 2003*, Ahmedabad, India, Feb 13-15 2003. http://dlist.sir.arizona.edu/pubs/6.htm
- dLIST. http://dlist.sir.arizona.edu/
- DL-Harvest.  http://dlharvest.sir.arizona.edu/

# Thank you!

Questions?