Caltech CODA

Eric F. Van de Velde
California Institute of Technology
eldv@library.caltech.edu

Open Archives Workshop
Oct. 17-19, 2002
CERN, Geneva
Caltech CODA

- **Collection of Open Digital Archives: CODA**
  
  Mus. A passage of more or less independent character introduced after the completion of the essential parts of a movement, so as to form a more definite and satisfactory conclusion. -- OED

- [http://coda.caltech.edu](http://coda.caltech.edu)

- Over 1,100 documents available now!
  - Theses
  - Technical Reports
  - Conference Proceedings
  - Book
  - Non-Research Collections
Caltech

- 285 Professorial faculty
- 900 Undergraduate students
- 1100 Graduate students
- 1000 Post-Doctoral researchers
Caltech Library System

- 55 FTEs, 14 Librarians, 6 IT Staff
- 500,000 Volumes
- 3556 Paid Print-Journal Subscriptions
- 2116 Paid E-Journal Subscriptions
- 88 Online Databases
- 160 Workstations, 100 Public
- 4 Major Libraries + 2 Locations
- $6,370,000 Annual Budget (FY 02)
CLS OAI Team

- **Info. Tech.:**
  - B. Coles
  - E. Sponsler

- **Scanning:**
  - S. Garstang

- **Technical Services:**
  - K. Johnson

- **Librarians:**
  - K. Douglas
  - J. O’Donnell
  - G. Porter
  - H. Ramachandran
  - L. Toot*

- **Support Staff**
Theses

- NDLTD: Networked Digital Library of Theses and Dissertations
  - Caltech involved since 1998
  - http://www.ndltd.org/
  - ETD 2003, May 21-24, Berlin, Germany

- E-submission compulsory July, 2002

- http://etd.caltech.edu/ETD-db/ETD-browse/browse?family_letter=all

- 294+ Theses available (49 restricted)
Theses

- Recruitment
  - Administration: early supporters
  - Faculty: concerned about publication restrictions
  - Students: very interested

- Implementation
  - Install and maintain NDLTD software
  - Set up procedures with Graduate Office
  - Check metadata, document formats
  - Seminars on Copyright, Authoring tools, Metadata
Scanning Theses

- Flood damaged 200 circulating theses
- Scan archival copies
- Gradual retrospective conversion

**Issues:**
- Training: work flow similar to e-delivery
- Software and hardware compatibility
- Author permission (1978, ©,...) and open access

**Cost:**
- Scan during e-delivery off-peak hours
- Metadata, abstracts (Librarian Time)
Technical Reports
Faculty Self-Publishing (1999)

- 44 Engineering and Applied Science
- 3 Chemistry and Chemical Engineering
- 3 Physics, Mathematics, Astrophysics
- 3 Biology
- 2 Geology and Planetary Science
- 1 Humanities and Social Sciences

- Supplement Self-Publishing with Institutional Repositories
Technical Reports: Policies

- Voluntary participation
- Repository for any Research Unit
- RU = Professor, Option, Division,...
- RU controls policy on who may submit
- RU sets up internal approval process
- Metadata openly available
- Submission is permanent
- Non-exclusive permission to distribute
Use License

I hereby grant to [Caltech] the irrevocable, non-exclusive royalty free right to reproduce, distribute, display, and perform this work in any format including electronic formats throughout the world for educational, research and scientific non-profit uses during the full term of copyright including renewals and extensions via the Digital Collections mechanisms maintained by the Caltech Library System. I also hereby grant to Caltech the non-exclusive right to sub-license these rights to others should the Institute forego the ability to maintain distribution. I warrant that I have the copyright to make this grant to Caltech unencumbered and complete.

Once this paper is so published, it may not be withdrawn. With the approval of the repository administration revisions to available documents within this service will be accepted.

The following Notice Concerning Terms and Conditions of Use will be included with the electronic distribution copies of the work: You are granted permission for individual, educational, research and non-commercial reproduction, distribution, display and performance of this work in any format.

http://resolver.library.caltech.edu/caltechCSTR:2001.000a
Software: http://www.eprints.org/

- S. Harnad, R. Tansley, and C. Gutteridge
- Open Archives Initiative
- Free
  - Open Source: GNU General Public License (GPL)
  - Built on GPL software: Linux, Apache, MySQL, Perl,
- Easy
  - Browsing and searching (readers)
  - Submission procedure (authors)
  - Document management (librarians)
  - System administration
- Getting better
  - EPRINTS-2-ALPHA-2 released Jan. 9\textsuperscript{th}, 2002
Computer Science

- [link] http://caltechcstr.library.caltech.edu/
- Converted the NCSTRL database
- Scanned older print reports
- Submission process for new reports
- Report numbers
- Add, correct metadata
- 368 Reports available
Earthquake Engineering

- [http://caltecheerl.library.caltech.edu/](http://caltecheerl.library.caltech.edu/)
- A historical collection
- All scanned
- OCR abstracts from TIFF files
- Few additional submissions anticipated
- 287 Reports available
Parallel and Distributed Systems Group

- [http://caltechparadise.library.caltech.edu/](http://caltechparadise.library.caltech.edu/)
- Took over existing digital collection
- Anticipate ongoing submission
- 45 Reports available
Library Reports

- http://caltechlib.library.caltech.edu/
- New submissions only
- 15 Reports available
In Development

- Graduate Aeronautical Labs.
  - Fluid-mechanics
  - Solid-mechanics
- Environmental Engineering
- Control and Dynamical Systems
- Mechanical Engineering
Conference Proceedings
Conference Proceedings

- Cavitation 2001
  - http://cav2001.library.caltech.edu/
- A one-time favor
- Very successful
- CAV 2003 considering similar model
- Next time, we would charge
- 110 Reports available
Roughly half of the accesses represent PDF downloads. Human users comprise 88% and search engine robots 12% of total accesses based on browser type.
Books

- Archive contains 1 book:
  - Copyright waiver from publisher under special arrangement with author

- Ready for more books
Non-Research Repositories

- Oral Histories
  - A project of the Caltech Archives
  - Archives control the repository
  - Library maintains the repository

- Engineering and Applied Science
  - PR journal for friends and alumni
  - PR controls the repository
  - Library maintains the repository
Technical/Managerial Issues
Persistent URLs

- [http://resolver.library.caltech.edu/CaltechBOOK:1995.001](http://resolver.library.caltech.edu/CaltechBOOK:1995.001)
- Our resolver keeps track of location
- Insurance against future software changes
- Cheaper than DOIs...
Many Repositories

- More work to set up and maintain, BUT:
- Isolated administrative control:
  - Who vets documents for content and format?
  - Who assigns report numbers?
  - Who sets access and harvesting policies?
  - Who decides on metadata?
- No endless “big-picture” debates
- Software choice (Eprints, NDLTD)
- Customized look and feel
- Other views through federation
Conclusions (1)

- Acquire technology
  - Need Linux applications developer
  - Begin small (obsolete workstation)
  - Be ready to grow fast (acquire server)
- Train library staff
  - Find in-house projects (NCSTRL Eprints)
- Public Relations:
  - Publicize the service
  - Recruit leaders in departments
  - Remind on a continuing basis
  - Exploit all informal conversations
Conclusions (2)

- Educate
  - Copyright (fear is the enemy)
  - Effective use of multimedia
  - Authoring tools
- Maintain stable and reliable systems
  - Win or lose an advocate on first use!
- Choose projects
  - Initially, accept whatever comes your way
  - Later, set reasonable acceptance criteria.
Conclusions (3)

- Struggling
  - All faculty-initiated submissions
  - Voluntary student-initiated submissions
  - Fee for service

- Very successful
  - Compulsory student submissions (theses)
  - Library-administered collections
  - Scanning printed material (unexpected)

- Recommendation: Get all theses online! Join NDLTD!