DSpace@Cambridge project

Objective:

to develop a digital institutional repository
for the University of Cambridge
DSpace@Cambridge

Under D-construction

(with acknowledgement to University of Cambridge Newsletter)
Outline

• DSpace
• DSpace Federation
• Cambridge-MIT Institute
• DSpace@Cambridge
• UK Contexts
DSpace is...

- A library-managed information service for the local research community
- An open source technology platform
- A service model for open access and/or digital archiving
- A platform to build an Institutional Repository
- A (proposed) federation of digital repositories across multiple academic research institutions
DSpace - 'a durable digital depository'

- MIT Libraries - Hewlett Packard Labs collaborative development project
- institutional repository for MIT staff's digital research and learning materials
- Open Source software (Nov 2002/May 2003)
- federated system
- preservation function
DSpace - concepts

• captures
  – digital research material in any format
  – directly from creators (e.g. academics)

• describes
  – descriptive, technical, and rights metadata
  – persistent network identifiers

• distributes
  – via WWW, with necessary access control

• preserves
  – bitstream guaranteed
Dsphere
– digital preservation

• Philosophy
  – Lots of digital material *is already lost*
  – Most digital material is *at risk*
  – Better to have it, do bit preservation than to lose it completely
  – Need to capture as much information as possible to support functional preservation
  – Cost/benefit tradeoffs
DSpace
- digital preservation

• MIT’s format commitment levels
  – known/supported
    • e.g. TIFF, SGML/XML, AIFF, PDF
  – known/unsupported
    • e.g. Microsoft Word, PowerPoint (common)
    • e.g. Lotus 1-2-3, Visicalc, WordPerfect (less common)
  – unknown/unsupported
    • one-of-a-kind software program

• digital file format registry
DSpace Federation

• Federation development
  – CMI and Mellon-funded projects involving 8 universities
  – broad Open Source adoption

• goals
  – drive DSpace development
  – acquire critical mass of content
  – utilize distributed expertise
DSpace Federation

• DSpace Federation partners
  – MIT (US)
  – Cambridge University (UK)
  – Cornell University (US)
  – Columbia University (US)
  – Ohio State University (US)
  – University of Rochester (US)
  – University of Toronto (Canada)
  – University of Washington (US)
Cambridge-MIT Institute

• CMI
  – funded by UK Government (DTI)
  – £68 million over 5 years (2000-2005)
  – mission: 'to improve the competitiveness, productivity and entrepreneurship of the UK by educating leaders, discovering knowledge and developing technologies, and creating programs for change using a partnership of MIT and Cambridge'
CMI library projects

- 3 projects approved by CMI
  - preliminary study, in Cambridge and UK, of the case for digital institutional repositories (2002)
  - implementation and development of DSpace in Cambridge (2003-5)
  - UK seminar series to develop digital institutional repositories (2003-5)
DSpace@Cambridge

- joint project between Cambridge University Library and MIT Libraries in partnership with Cambridge University Computing Service
- objective: to establish and develop a digital institutional repository for Cambridge
- 3 year duration (2003-2005)
- £1.7 million grant from CMI
- Joint CUL + MIT Project Team
- Advisory Board with UK and US members
DSpace@Cambridge - short term objectives

• DSpace 1.0 to be implemented immediately
• 'early adopters' to provide test content
• further development and customization
  – digital preservation (CUL-led)
  – learning management system interoperability (MIT-led)
• business plan to sustain DSpace@Cambridge as a service
DSpace@Cambridge
- technical tasks

- install and customize hardware and software
- develop local system interfaces
  - networks, user authentication, security, back-up
- provide ongoing systems administration
- test scalability
  - technical
  - organizational
DSpace@Cambridge - organizational issues

- local policy decisions
  - community definitions, acceptable formats, levels of access, metadata quality, IPR, etc.
- early adopters and fast followers
- business modelling
- evaluation criteria and processes
- communication
  - advisory groups, seminars, website, discussion lists
- content, content, content
DSpace@Cambridge - potential benefits to users

• visibility of academic work
• 'community' (departmental) identity
• Cambridge University 'badge'
• ownership of material is retained by user/CU
• digital preservation
• UL repository offers long-term guarantees
• data security
• cost-benefits of central institutional repository
DSpace@Cambridge
- possible content

- preprints
- refereed research papers
- technical reports
- working papers
- conference papers
- e-theses
- administrative records
- legal deposit of e-publications
- published books
- overlay journals

- bibliographic datasets
- research datasets
- images
- audio files
- video files
- learning objects
- reformatted digital library collections
- learning materials
- web pages
DSpace@Cambridge - longer term objectives

• develop records management capabilities
• interoperability with other OAI-compliant digital repositories
• develop publishing capabilities (journal hosting)
• other applications?
UK Context
- CMI

• National Competitiveness Network
  – dissemination of CMI project experience
  – DSpace@Cambridge lessons available to UK HE & beyond

• LEADIRS (LEarning About Digital Institutional Repositories Seminars)
  – two 4-seminar series in the UK (beginning September 2003)
  – institutional strategies for digital repositories
  – not DSpace-specific
UK Context
- JISC and others

• Not working in ‘splendid isolation’
• Project FAIR (Focus on Access to Institutional Resources)
  – SHERPA (Nottingham et al)
  – DAEDALUS (Glasgow)
  – ePrints UK (UKOLN)
• Digital Curation Centre
  – JISC + e-Science Core Programme
• Digital Preservation Coalition
• Scholarly Communication Campaign
  – CURL, SPARC, Budapest Open Access Initiative
Links - DSpace@Cambridge

- DSpace (www.dspace.org/)
- DSpace@Cambridge
  - Project website (www.lib.cam.ac.uk/dspace/)
  - Implementation website (https://dspace.csi.cam.ac.uk)
- Cambridge University Library (www.lib.cam.ac.uk/)
- MIT Libraries (libraries.mit.edu/)
- CMI (www.cambridge-mit.org/)
- LEADIRS (www.lib.cam.ac.uk/UKseminars/)
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