DSpace @ University of Hawai‘i at Mānoa Library

2007 Hawaii State Web Users Group Meeting

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University of Hawai‘i at Mānoa Library
Mar 23, 2007
Definition

- A set of services that a university offers to the members of its community
- for the management and dissemination of digital materials created by the institution and its community members.
- An organizational commitment to the stewardship of these digital materials
- including long-term preservation where appropriate
- as well as organization and access or distribution⁶

⁶ : See Sources, item 6 at end of powerpoint
Institutional Repositories

**History and Context**

- **Library community:** desire to make research less costly to access
- **Academic institutions:** open access to its research in digital formats, enhance academic prestige
- **Teaching and research community:**
  - access to “grey literature”, valuable research materials not usually found in publications
  - increase in web citation use: persistent uri and long-term management of content
  - access to teaching materials: “learning objects”
- **DSpace community:** open and interoperable
Organizational Purpose

- increase dissemination speed and impact of faculty research
- showcase the university’s research output
- house digitized collections
- manage learning materials: archive of learning objects available to all disciplines
- provide Open Access
- support collaboration within “invisible colleges”
Adoption Levels

- 2005: IRs at 40% universities; 6% colleges\textsuperscript{5}.
- 88\% of universities without an IR are planning one\textsuperscript{5}.
- Major players
  - Fedora (not Fedora-Core)
  - E-prints
  - D-Space
DSpace

 Developers:
  - MIT and Hewlett Packard: 2000-2002

 Community¹:
  - 2003: DSpace Federation Project
  - 2004: First DSpace “committer” group
  - 2005: 28 countries have adopted
  - 2007: Over 200 organizations have implemented
**Intent**

- **Capture**
  - Digital research material in various formats
  - Directly from creators, e.g. faculty
- **Describe**
  - Descriptive, technical, and rights metadata
- **Distribute**
  - Via the web with access control
- **Preserve**
  - Persistent URI
  - Perpetual collection
  - Checksum and bitstream data
Types of content

- Preprints, articles, working papers
- Technical reports
- E-theses and dissertations
- Datasets
- Images
- Audio and video files
- Digitized library collections
Content item “versions”²

- PDF, Word versions of same document
- Editions of a work
- Metadata support
Title: ImageTwo
Issue Date: 14-Mar-2007
URI: http://hdl.handle.net/10125/40
Appears in Collections: Test: image collection: no workflows: sunyen/micro may submit

Files in This Item:

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<th>Description</th>
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<th>Format</th>
<th>Show/View</th>
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Technology

- Environment: Windows, Linux, Solaris, CentOS, etc.
- Database: Postgresql or Oracle
- Apache, Tomcat
- Java and XML
- Java server pages, some Perl
- Lucene index/search
- CSS-based XHTML user interface
- CNRI Handle system
- New user interface in development: Manakin
Architecture

7.1 Overview

The DSpace system is organized into three layers, each of which consists of a number of components.

![DSpace System Architecture Diagram]

Source: DSpace beta 1.1.4.1 System Documentation [4]

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Built-in Functionality

- Easy to use Item submission workflow
- Batch import and export
- Roles and permission levels
- Stacked authentication services
- X.509, LDAP
- Persistent network identifiers (CNRI)
- Email notification
- RSS feeds
- Item recommendation service
Built-in Functionality

- Metadata services
- Browsing interface: subject, title, author, date
- Complex document indexing & searchability
- Search interface
- Statistical reports
- Copyright and License management
  - Integrated Creative Commons licensing service
Built-in Functionality

- Image thumbnail generation
- Checksum testing
- Multiple bitstreams per item
- Access control
- OpenURL (SFX)
- Breadcrumb navigation
Template for site structure

- Community → sub-communities → collections → items → bitstreams
- Ability to move communities up and down hierarchy
- Items can be associated with more than one collection
Communities and Collections

Shown below is a list of communities and the collections and sub-communities within them. Click on a name to view that community or collection home page.

- Asia
  - Islam in Southeast Asia [1]
  - Japanese Religious Translations [1]

- Dissertations - University of Hawaii at Manoa
  - PhD dissertations [4]

- DSPACE ASTRONAUTS
  - Astronaut collection one [3]
  - Astro Bench Warmers
    - Bench Warner Second String
      - No workflow collection number 2: license i type in creating collection [2]
    - Bench Warner Third string
      - NoWorkflow [6]

- Image communities
  - Pictures: testing thumbnails [3]

- Preservation Reformatted Material
  - Books [3]
  - Pamphlets [1]

- X
Item submission workflow

- Workflow steps
- “Checkout” system controls access to the documents throughout the workflow

Figure 2.3: Submission Workflow in DSpace

Source: DSpace beta 1.1.4.1 System Documentation

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Roles and Groups

Roles

- Submitting content
  - Submitter
  - Item reviewer
  - Coordinator
  - Metadata reviewer
- Collection administrator
- System administrator

Groups
Please use this identifier to cite or link to this item: http://hdl.handle.net/123456789/27

Full metadata record

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Appears in Collections: Japanese Religious Translations

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Show simple item record
## Metadata Field Registry

Note: Adding a new field to the registry does not add a corresponding input field to the submit forms!

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<td></td>
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<tr>
<td>2</td>
<td>contributor</td>
<td>advisor</td>
<td>Use primarily for thesis advisor.</td>
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<td>contributor</td>
<td>author</td>
<td></td>
</tr>
<tr>
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<tr>
<td>8</td>
<td>coverage</td>
<td>temporal</td>
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Digital preservation²

- **Known/supported**
  - Migration for texts, images, audio, etc.
  - Emulation for software, multimedia possible
  - E.g. mpg, wav, gif, tiff

- **Known/unsupported**
  - bit preservation at minimum
  - no guarantees for support
  - E.g. Word, Excel

- **Unknown/unsupported = format not known**
  - Bit preservation at minimum
DSpace at UH Manoa

- Institutional scope: starting with UH Manoa
- ETA: June 2007
- Current communities of interest:
  - Electronic journals
  - Department archives
  - Brittle books project
  - E-theses and dissertations
  - Departmental publications

Demo
Sources


