



Open Repositories 2007

Report by: Andrea Kosavic

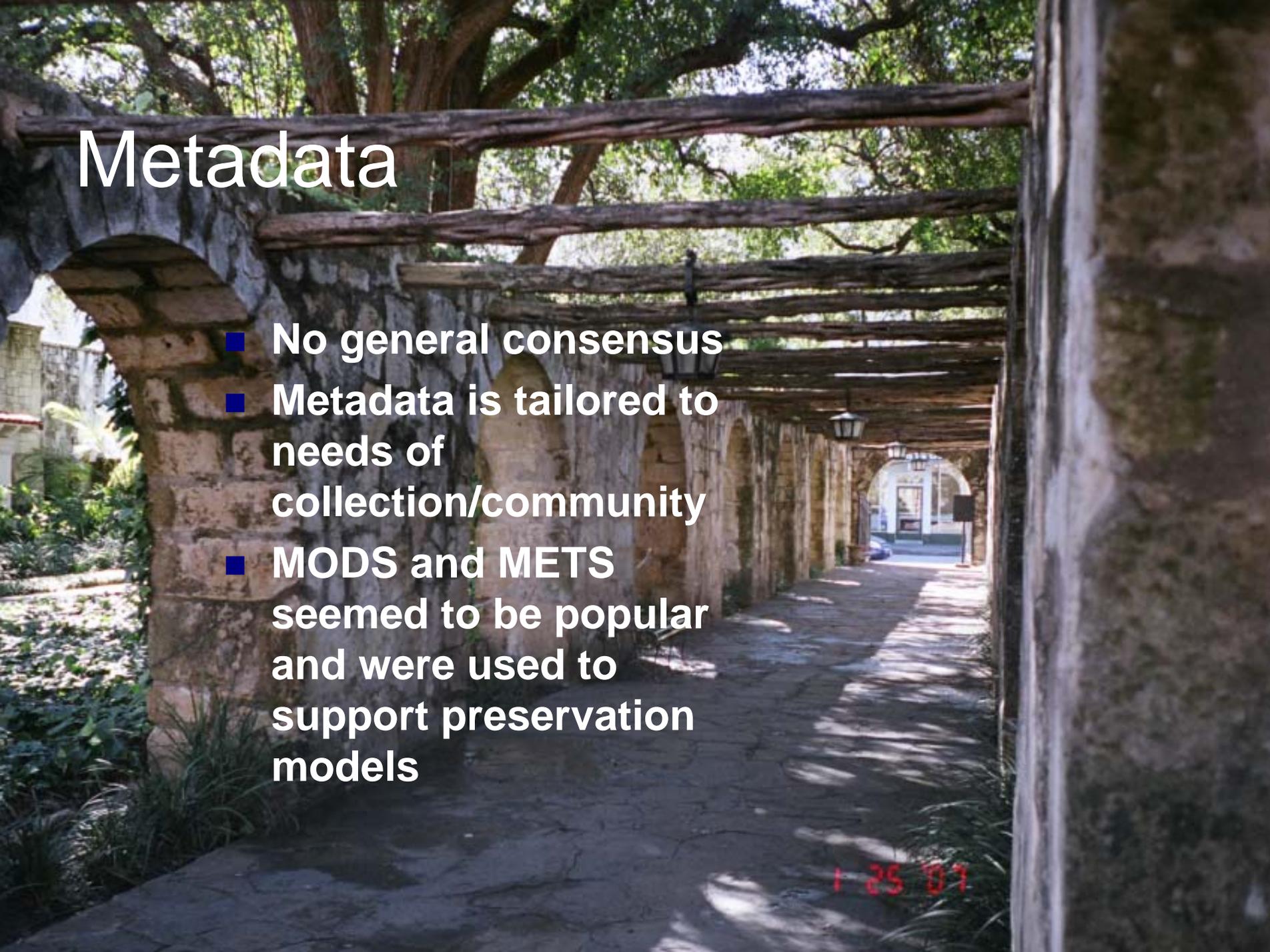
1 25 '07



Challenges for Digital Repositories

- Difficult to populate repositories
- Service-intensive
- Cost - staffing required...librarian(s) + programmer(s) + student help, these costs absorbed by institutions
- Appearance
- Interoperability

Metadata

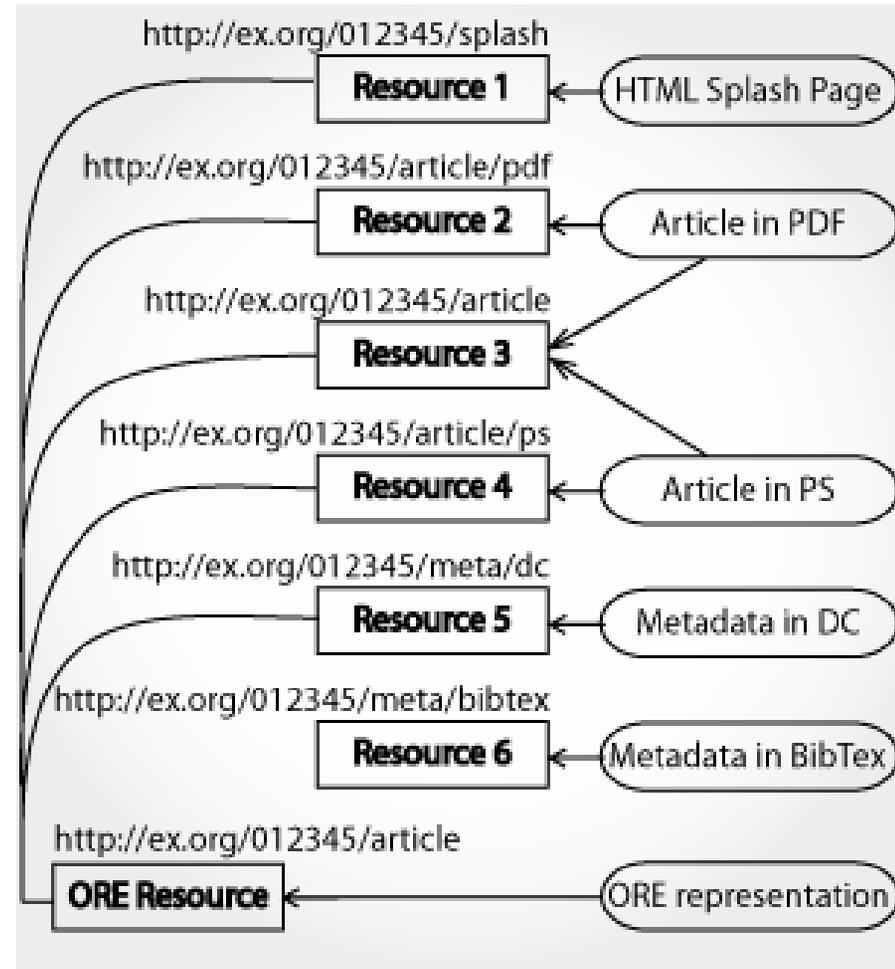
A photograph of a stone archway with a wooden trellis structure over a path. The path is paved with stone tiles and leads through a series of arches. The background is filled with lush green trees and foliage. The lighting is bright, suggesting a sunny day. The overall scene is a well-maintained outdoor walkway.

- No general consensus
- Metadata is tailored to needs of collection/community
- MODS and METS seemed to be popular and were used to support preservation models

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OAI-ORE

- OAI is now referred to as OAI-PMH or OAI-ORE
- OAI-ORE will provide a way to describe a citable complex digital object, an aggregation of objects (ie. Scholarly communication now also includes data sets, supplementary graphics, primary source material as well as references to previously published objects)
- The relationships between resources are usually not well defined. ORE seeks to build a framework for the semantics of links between objects in a scholarly communication environment.





Digital Preservation

- DSpace is used as the back end for digital preservation systems
- This is encouraging as institutions view DSpace as an enduring solution
- NYU is customizing DSpace to work with the OAIS model

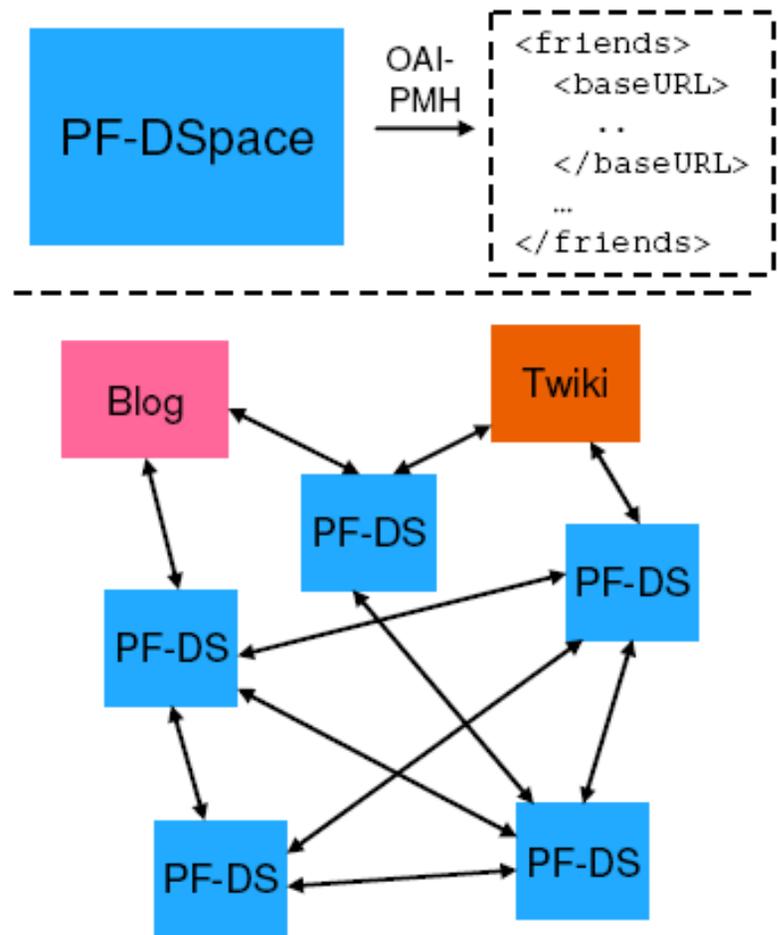
Interoperability

- Very popular topic...theme of conference
- Australian National University showed a demo for moving objects between DSpace and Fedora
- ANU has created a DSpace Export Plugin that parses OJS to create DSpace XML
- Hewlett Packard is working on PF-DSpace (peer-federated) that will allow easy federation of DSpace as control will be shared equally among nodes

Interoperability continued...

Builds on DM-DSpace...

- **Modularizes** DM-DSpace implementation so that the basic capabilities are compatible with emerging releases of the DSpace standard distribution
- **Generalizes** DM-DSpace model of federation to include capabilities such as selective harvesting and metadata-only harvests
- **Introduces a “peer federation” approach** to DSpace node discovery that eliminates the need for special-purpose repository indexing services



The Dark Archive

- Can be used to store master TIFFS
- Integrate as part of the scanning workflow
- Ideal for copyrighted works
- Benefits include full text indexing and preservation

Aardvark – Dark Archive

- Collections of digital files not suitable for the IR grew more and more rapidly

AARDVARK

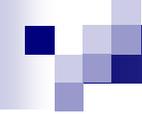
Georgia Tech
Archives & Records Management



- Copyright constraints
- Privacy issues
- Campus restrictions

Georgia Tech Library and Information Center

- <http://smartech.gatech.edu/handle/1853/13171>



Manakin XML User Interface (UI)

- Developed by Texas A&M
- Allows for quick and easy customizations of DSpace user interface, without altering the underlying JSP code
- Very popular with presenters and conference delegates
- This is a very exciting opportunity for us to present our digital collections

Manakin allows for thumbnail display alternatives

The screenshot shows a Mozilla Firefox browser window displaying the TAMU Digital Repository page for 'Fayetteville folio, Arkansas-Missouri'. The browser's address bar shows the URL: <http://labs.di.tamu.edu:8080/geofolios/handle/1969.1/2952>. The page header features the TAMU Digital Repository logo and a 'Login' link. The main content area displays the title 'Fayetteville folio, Arkansas-Missouri' and 'Folio 119, published 1905'. Below the title, there is a 'Show full item record' button and a list of metadata: Latitude: 36:00:00 N, Longitude: 94:00:00 W, Author: Adams, George I. 1870-1932 (George Irving), Gov't Doc number: I19.5/1:119, Published by: Geological Survey (United States), In collection: Geological Atlas of the United States, and Permanent URI: <http://handle.tamu.edu/1969.1/2952>. The page also includes a sidebar with navigation options like 'Browse All of DSpace', 'Browse This Collection', and 'Search DSpace'. The main content area displays a grid of ten thumbnail images representing different pages of the folio, each with a title and download options for JPEG and TIFF formats.

Browse All of DSpace

- Communities & Collections
- Titles
- Authors
- Subjects
- By Dates

Browse This Collection

- Titles
- Authors
- Subjects
- By Dates

Search DSpace

Search DSpace
 This Collection

Advanced Search

Fayetteville folio, Arkansas-Missouri

Folio 119, published 1905

Show full item record

Latitude: 36:00:00 N
Longitude: 94:00:00 W
Author: Adams, George I. 1870-1932 (George Irving)
Gov't Doc number: I19.5/1:119
Published by: Geological Survey (United States)
In collection: Geological Atlas of the United States
Permanent URI: <http://handle.tamu.edu/1969.1/2952>

Thumbnail Title	Download Options
119backcover, 300 ppi	Download 42MB JPEG Download 105.1MB TIFF
119frontcover, 300 ppi	Download 42MB JPEG Download 105.3MB TIFF
119insidcover, 300 ppi	Download 71MB JPEG Download 105.7MB TIFF
119pg01, 300 ppi	Download 76MB JPEG Download 106.3MB TIFF
119pg02, 300 ppi	Download 74MB JPEG Download 106.2MB TIFF
119pg03, 300 ppi	Download 75MB JPEG Download 106.8MB TIFF
119pg04, 300 ppi	Download 77MB JPEG Download 105.3MB TIFF
119pg05, 300 ppi	Download 74MB JPEG Download 102.0MB TIFF
119pg06, 300 ppi	Download 46MB JPEG Download 107.1MB TIFF
119pg07, 300 ppi	Download 86MB JPEG Download 104.2MB TIFF

<http://labs.di.tamu.edu:8080/geofolios/handle/1969.1/2952>

Manakin allows for easy integration of impressive features, such as the Yahoo Maps API



The screenshot displays a Mozilla Firefox browser window with the address bar showing <http://labs.di.tamu.edu:8080/geofolios/handle/123456789/2>. The page header features the TAMU Digital Repository logo and navigation links. The main content area includes a sidebar with search and browse options, a central map of the United States with numbered markers, and a section titled "Recent Submissions" listing geologic folios.

The Geologic Atlas of the United States

Recent Submissions

- [Fort Benton folio, Montana](#)
Weed, Walter Harvey, 1862-1944 (1899)
- [El Paso folio, Texas](#)
Richardson, G. B. (George Burr), 1872-1949 (1909)
- [Coos Bay folio, Oregon](#)
Diller, L. S. (Joseph Silas), b. 1850 (1901)

<http://labs.di.tamu.edu:8080/geofolios/handle/123456789/2>

BibApp

- University of Wisconsin, Eric Larson
- Takes a professor's citations from RefWorks, checks them against Sherpa/Romeo, packages them up for DSpace ingest
- This can rapidly populate Digital Repository
- Code will be released at Code4Lib, March 1, 2007

Mashup

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+2



+3



+4



BibApp continued...

- BibApp UI shows a profile for each professor
- Displays the professor's publishing network, popular research topics, and citation types.

UW BibApp^{alpha}

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Ian Dobson



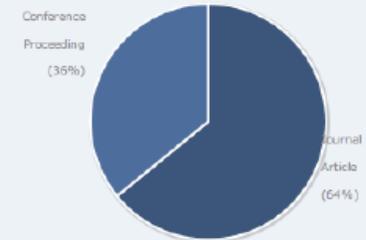
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Citation Types



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Popular research topics:

21 [electric power systems](#)
16 [mathematical models](#)
11 [eigenvalues and eigenfunctions](#)
10 [system stability](#)
10 [engineering electrical electronic](#)
8 [thyristors](#)

BibApp continued...

- Sorts information by department
- Browse by professor's name, popular research topics, popular journals

UW BibApp alpha

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Electrical and Computer Engineering

51 Researchers | 3268 Citations

Name [Pictures](#) [Co-Authors](#) [Timeline](#)

 [Mark Allie](#)
Asst. Faculty Assoc

 [Abdulgader Almagri](#)
Associate Scientist

 [Fernando Alvarado](#)
Professor Emer

 [Frederic Anderson](#)

Popular research topics:

[algorithms](#) [computer simulation](#) [current density](#)
[electric currents](#) [electric power systems](#) [engineering electrical](#)
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[processing](#) [stellarators](#) [system stability](#) [wireless telecommunication](#)
[systems](#)

Popular journals:

88 [Applied Physics Letters](#)
78 [IEEE Transactions on Power Systems](#)
72 [IEEE Transactions on Plasma Science](#)

Semantic Web



- SIMILE project at MIT
- Devised a way to harvest heterogeneous metadata
- The solution is RDF...use the RDFizer to convert metadata into RDF
- The tool can be pointed at websites, repositories, etc. (Special tool developed for DSpace)
- This scraped data can then be viewed through Longwell, which is a faceted browser, web application, and configurable UI

<http://simile.mit.edu/>

PROJECTS

- [Babel](#)
- [Exhibit](#)
- [Fresnel](#)
- [Gadget](#)
- [HTTPTracer](#)
- [Java Firefox Extension](#)
- [Longwell](#)
- [Piggy Bank](#)
- [RDFizers](#)
- [Referee](#)
- [Solvent](#)
- [Semantic Bank](#)
- [Timeline](#)
- [Welkin](#)

SERVICES

- [Blog](#)
- [Wiki](#)
- [SIMILE's Bank](#)
- [Code Repository \[History\]](#)
- [Issue Tracking](#)
- [Mailing Lists](#)
- [Continuous Integration](#)
- [History](#)

ABOUT

- [About SIMILE](#)

Semantic Web continued...

- DWell is a longwell configuration created especially for DSpace
- Dwell is embedded into DSpace as an advanced search UI
- DWELL can help put facet restrictions to help drill down by type of object, community, etc.
- DWELL's facets can be selectively displayed, can check off boxes to create disjunctive restrictions
- DWELL's data can be shown as a table, timeline, geospatial
- <http://simile.mit.edu/exhibit/examples/presidents/presidents.html>

Digital Collections Possibilities

- Manakin as our user interface
- Dark archive
- Improve scanning workflow & preservation
- DWell for displaying select digital collections
- Use BibApp to populate DSpace with scholarly content
- Try out Yahoo Maps API for Geospatial Representation
- DM-DSpace for Synergies

Questions?

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