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Current DAMS In 3D: Access, Storage, And Preservation

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A presentation of work conducted by the Orbis Cascade Alliance Digital Services Team 2010

Digital Services Team

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- Anne Frantilla (Seattle Municipal Archives)
- Ann Lally (University of Washington)
- Michael Klein (Oregon State University)
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- Mike Spalti (Willamette College)
- **Kyle Banerjee, Digital Services Program Manager, staff liaison**
- **Marita Kunkel (Pacific University), council liaison**
- Jodi Allison-Bunnell, Northwest Digital Archives Program Manager, ex officio
- ...with significant support from **Isaac Gilman (Pacific University)**
- http://www.orbiscascade.org/index/cms-filesystem-action/groups/dst/dstfinalreport2010.pdf

Disclaimer

In this presentation, we will present the method and results found by the IR/Hosting subgroup of the Orbis Cascade Alliance Digital Services Team 2010.

Any views expressed are the views of the presenters and do not reflect views of other members of the IR/Hosting subgroup, larger Digital Services Team, the Alliance, or member institutions.

Background

- Northwest Digital Archives Digital Program Working Group (2007-2009)
  - The Alliance pursue inter-institutional hosting options for access in the near term. (Dspace and CONTENTdm)
  - The Alliance pursue the option of using another consortial digital repository, the Colorado Alliance Digital Repository (ADR).
  - The Alliance work with appropriate partners to develop training packages for member institutions that plan to use OCLC's "quick start" CONTENTdm in the near term

  http://www.orbiscascade.org/index/cms-filesystem-action/nwda/files/dpwg_report_recommendations_final_rev_20090727.pdf

- Orbis Cascade Alliance Institutional Repositories Task Force (2009)

  "Based on our work from June through September 2009, we believe that the Orbis Cascade Alliance would benefit from pursuing two repository options. This path provides a way for Alliance members to increase their expertise with repository software if they so choose while other Alliance members can outsource these services as they see fit. The implementation of a DSpace repository along with the pursuit of a vended solution also creates competition that can raise the bar for both services."http://www.orbiscascade.org/index/cms-filesystem-action/groups/irtf/irtf_final_report.pdf

Charge

The following initiatives as described in the Digital Program Working Group report of September 8, 2009

will be developed as recommendations forwarded to EC and Council.

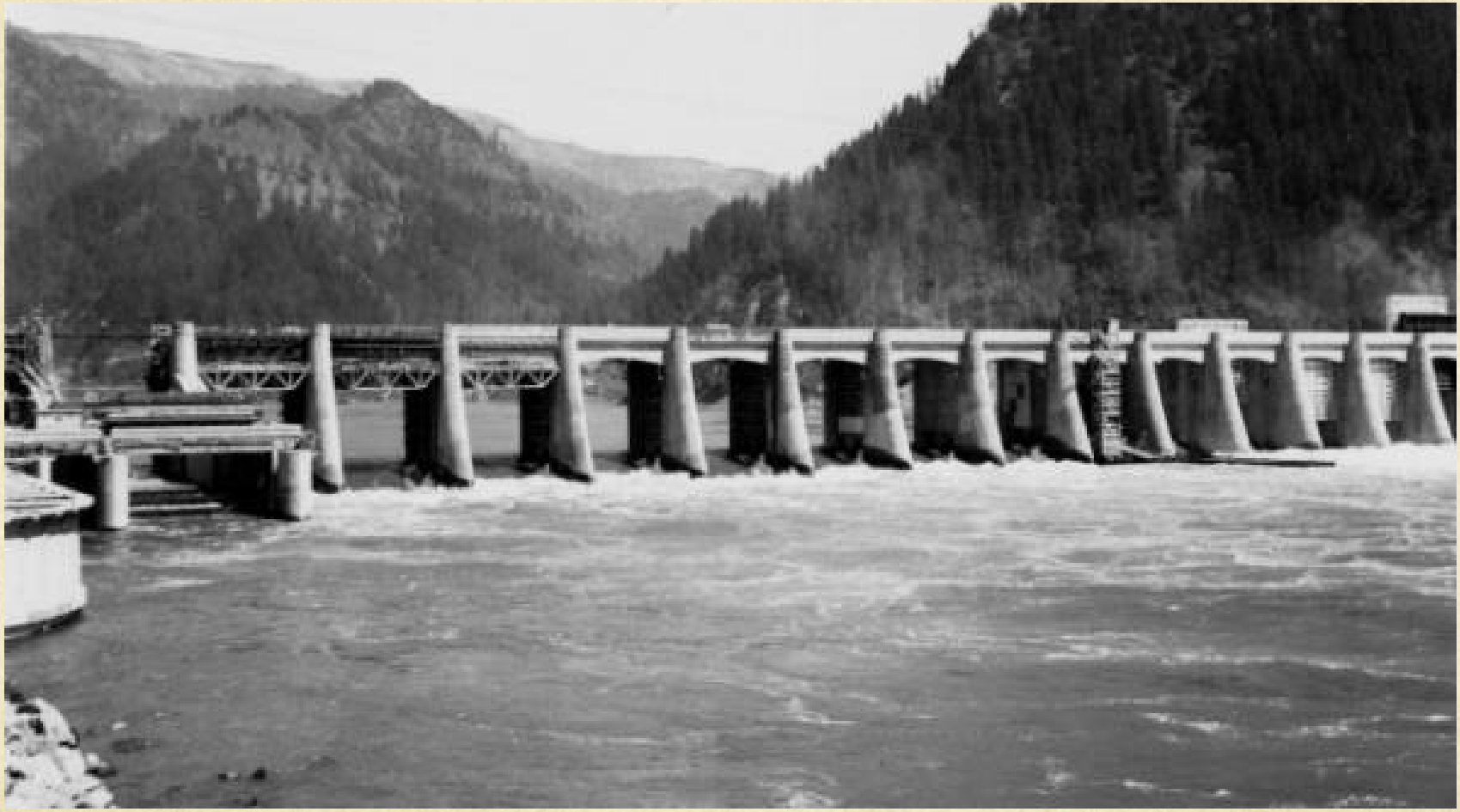
.....Institutional Repository....

DST is encouraged to consider a range of technologies (e.g., DSpace, ContentDM, Fedora) and hosts (e.g., member, Alliance, other consortium, vendor). Examples include but are not limited to WSU hosted DSpace, UW hosted Content DM, Colorado Alliance hosted Fedora, and vendor hosted IR.

Summary of Activities

- Reviewed available systems
- Created initial criteria for review
- Contacted current users of systems for feedback
- Investigated collaborating with other consortia
  - Colorado Alliance ADR (Alliance Digital Repository)
  - LASR (Liberal Arts Scholarly Repository)
- Contacted vendors for consortial pricing information on various repository platforms including (Simple DL and CONTENTdm)
- Decided to split into different categories based on very different strengths of systems and wide array of member needs and non standard usage of the term IR
- Narrowed down systems per category
- Communicated criteria and list of systems to wider DST and other self-identified interested individuals from Alliance institutions for review and feedback
- Installed and tested systems; set up vendor accounts for demos
- Conducted final review of systems for recommendations

Available Systems



Bonneville Dam on the Columbia River, Oregon State University Archives, http://oregondigital.org/u?/streamsurve,809

Other DAMS Reviews

- "A Comparative Analysis of Institutional Repository Software" (Feb. 10) *Purdue and U Wisconsin* http://blogs.lib.purdue.edu/rep/2010/02/25/a-comparative-analysis-of-institutional-repository-software/
- "Digital Asset Management (DAM) Planning/Implementation Survey" (Aug. 2010)" *UConn Libraries* http://digitalcommons.uconn.edu/libr_pubs/24
- "Repository Software Survey" (Nov. 2010) *Repositories Support Project sponsored by JISC* http://www.rsp.ac.uk/start/software-survey/results-2010/

Initial Criteria

Access

- Standards compliant display
- Customizable look and feel with multiple options (per collection / institution)

Storage

- Scalability
- Security / Permissions
- Batch Processing
- Hosting Options

Preservation

- Standards compliant exportable data
- Hosting Options

Initial Additional Information

- Cost
- Best for X
- Challenges with Y
- Alliance Institutions Using It

2nd Round General Criteria

- Self-submission
- LDAP/ Shibboleth authentication
- Create and view relationships between items & Multi-file items
- Statistics Collection Statistics
- RSS for new content
- Collection specific branding
- Batch ingest / export
- Batch editing
- Supports multi. media formats
- Supports embedded viewers
- Streaming Support
- Persistent Links
- Search Engine Optimization
- Open source/commercial
- Granular control of user privileges
- Supports controlled vocabularies
- Faceted searching
- Full text indexing
- Intuitive searching with limiters
- User contributed tags/comments
- OAI-PMH compatible Metadata Schemas
- Cost

IR Criteria

- Customizable Submission Forms
- Version/revision tracking
- Google Scholar Integration
- *Persistent Links*

Journal Publishing

- Editorial workflow management
- Peer review workflow management (Facilitates blind review)
- Publish incrementally OR complete issues
- Support for OA model Support for subscription model
- Support for pay-per-view model
- Support for supplemental/multimedia content
- HTML article version PDF article version

Multimedia Options

- Image viewer with zoom & pan capabilities, ideally with image-only view (e.g. hide metadata)
- Favorites/Galleries/Light Table functionality for images
- Slideshow functionality
- Sharing capabilities (favorites, slideshows, etc)
- Download/export capabilities for end users - single image, batch download, with metadata, etc.
- Exhibit or virtual collection builder
- Automated creation of derivative formats (thumbnails, streaming versions)
- Capabilities to extract data from images

Power Options

Everything you just saw!

Round One Losers

EPrints

- Scalability, support, extensibility concerns

irplus

- limited community/traction

zentity

- limited community/traction

Round One Loser?

CONTENTdm

- lack of flexibility beyond images/text
- Scalability & performance issues
- Difficult to get Information out in re-usable form

Categories

Traditional IR

Multimedia

Journal Publishing

Power Solutions

Institutional Repository

Scholarly/intellectual output:

- journal articles
- theses/dissertations
- papers
- conference proceedings
- course materials
- curriculum vitae
- datasets

- research communities
- self-submission tools
- versioning
- open access

Multimedia

- Curricular materials
- Archival/special collections
- Supports various multimedia formats
  - images
  - texts
  - audio
  - video

Often centrally managed but with tools for end users:

- downloading
- slideshows
- personal curation

Journal Publishing

Specialized features for journal publishing:

- workflow management
- peer review
- access models (open access, subscription, pay-per-view)
- versioning

Power Solution

Round One Winners

Traditional IR

- bepress/Digital Commons
- DSpace

Multimedia

- Omeka
- SimpleDL

Journal Publishing

- bepress/EdiKit
- Open Journal Systems (OJS)

Power Solutions

- Greenstone
- Fedora

Traditional IR

DSpace

- DuraSpace
- Formerly MIT
- 2002
- Open source

Pros:

- Persistent links / identifiers
- Integrated with Google Scholar

Cons:

- Non-intuitive submission forms
- No native batch editing
- Upgrades complex for customized instances
- Limited image support

DSpace

- http://ir.library.oregonstate.edu
- https://research.wsulibs.wsu.edu:8443
- https://scholarsbank.uoregon.edu

Images

- http://timea.rice.edu

Manakin front end

- http://repository.tamu.edu/handle/1969.1/2490

bepress Digital Commons

- Berkeley Electronic Press
- Formerly UC Berkeley; ProQuest
- 2002
- pricing based on FTE; consortia discount pricing available

Pros:

- Flexibility
- Excellent customer support; openness to feature requests

Cons:

- Lacks persistent links/ identifiers
- Limited image support
- Qualified Dublin Core only

bepress Digital Commons

- http://demo.dc.bepress.com
- Branded:
- http://commons.pacificu.edu
- http://digitalcommons.wou.edu
- http://digitalcommons.linfield.edu
- Images:
- http://digitalcommons.calpoly.edu/mus_img/
- Submission:
- http://demo.dc.bepress.com/cgi/ir_submit.cgi?context=ecology

Multimedia

Omeka

- GMU Center for History & New Media
- 2008
- Open source

Pros:

- User-generated content
- Lightweight display creation

Cons:

- Image-centric, no full text
- Lacks robust core functionality
- Limited access controls

Omeka

- http://omeka.org
- Interactive
- http://chnm.gmu.edu/cyh/
- Exhibit
- http://exhibitions.nypl.org/exhibits/eminent?q=eminent
- Back end
- http://134.121.160.163/admin/

SimpleDL

- Roaring Development
- Salt Lake, UT
- May 2010
- Pricing model varies
- Hosted & direct licensing

Pros:

- Superior multimedia
- Developer eagerness

Cons:

- Lack of user tools
- No batch editing
- Limited access controls
- No traction yet

SimpleDL

- http://simpledl.wsulibs.wsu.edu/admin/login/

CONTENTdm

- OCLC (2006)
- Formerly UW; DiMeMa
- 2001
- Pricing model varies
- Hosted & direct licensing

Pros:

- Extensive core functionality
- Robust user community
- Integration with OCLC

Cons:

- Can be cost-prohibitive
- Image/text-centric
- Integrity/performance issues

- http://collections.contentdm.oclc.org/
- Customized:
- http://content.lib.washington.edu/
- http://oregondigital.org/digcol/
- http://cdm.reed.edu/
- Back end:
- https://cdm.reed.edu/cgi-bin/admin/start.exe

Journal Publishing

bepress EdiKit

- First 5 journals free with DC subscription; each subsequent journal $1,500 annually
- Individual licenses also available

OJS

- Public Knowledge Project
- UBC, Simon Fraser, Stanford
- Open source

Journal Publishing

- Both recommended, parallel core functionality:
  - editorial and workflow management
  - branding for individual journals
  - open access & subscription/PPV model
- Typical trade-offs between open source and software-as-service
- No single best option for Alliance institutions because of variations in institutional resources

OJS

- http://pkp.sfu.ca/ojs_demo

Power Solutions

Greenstone

- New Zealand Dig. Library Project
- University of Waikato
- Late 90s
- Open source

Pros:

- Core package self contained; easy to install

Cons:

- Lacks persistent links
- Limited access controls
- Poor submission tools
- Poor image handling
- Limited user community

Greenstone

- http://www.lib.neu.edu/freedomhouse/

Fedora

- Fedora Project
- 2003
- Open source

Pros:

- Highly extensible/flexible
- Preservation + access
- Versioning
- No defined front end

Cons:

- No front end
- Large initial investment in configuration

Fedora

- Colorado Alliance

http://adrresources.coalliance.org/

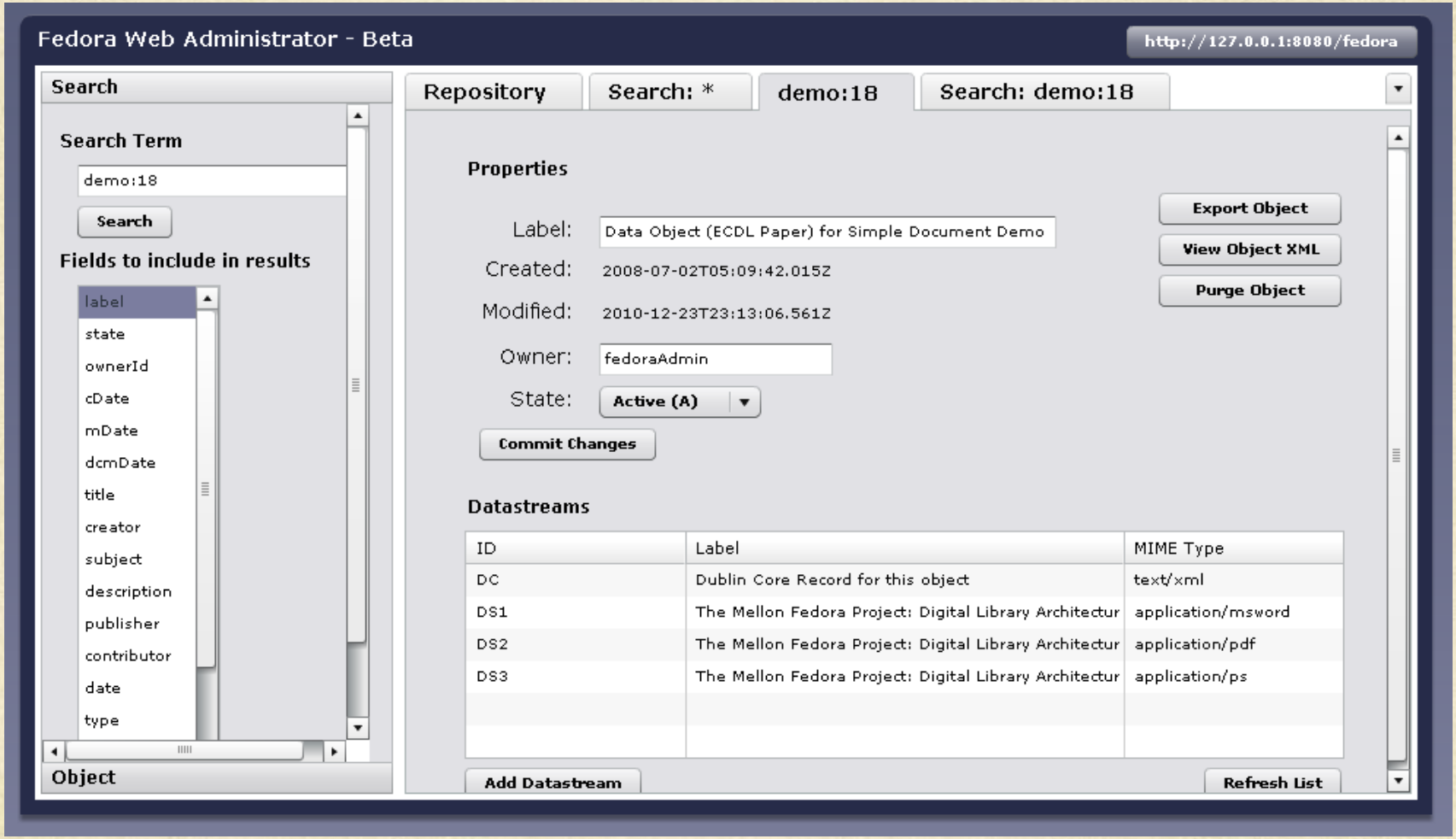
- Islandora

http://islandora.ca/

http://www.islandlives.ca/

- Hydra with Blacklight or other Hydra heads

https://wiki.duraspace.org/display/hydra/The+Hydra+Project


Fedora Web Administrator - Beta
http://127.0.0.1:8080/fedora
Search
Search Term
demo:18
Search
Fields to include in results
label
state
ownerId
cDate
mDate
dcmDate
title
creator
subject
description
publisher
contributor
date
type
Object
Repository
Search: *
demo:18
Search: demo:18
Properties
Label:
Data Object (ECDL Paper) for Simple Document Demo
Created:
2008-07-02T05:09:42.015Z
Modified:
2010-12-23T23:13:06.561Z
Owner:
fedoraAdmin
State:
Active (A)
Commit Changes
Export Object
View Object XML
Purge Object
Datastreams
ID
Label
MIME Type
DC
Dublin Core Record for this object
text/xml
DS1
The Mellon Fedora Project: Digital Library Architectur
application/msword
DS2
The Mellon Fedora Project: Digital Library Architectur
application/pdf
DS3
The Mellon Fedora Project: Digital Library Architectur
application/ps
Add Datastream
Refresh List

Selection Criteria

- what are your goals?
- what kind of objects do you want to manage?
- who are your end users? what are their needs?
- what are the functional requirements?
  - usability vs. functionality
  - access/preservation/both
- what kind of staffing is available? what level of funds?
  - weigh open source/commercial tradeoffs
  - consider technical specs
  - hosted vs. local instance


KEEP
CALM
AND
CARRY
ON

Current Landscape

- Moving target, try to remain calm
- Follow best practices for structured/shareable metadata
- OAI/PMH
- OAI/ORE