Chris Awre
*(with thanks to Tom Cramer for some of the slides)*

Repository Fringe
University of Edinburgh
2nd August 2013
Three parts

• What is Hydra – and why?

• State of the Hydrasphere

• Hydra@Hull update
Hydra

• A collaborative project between:
  – University of Hull
  – University of Virginia
  – Stanford University
  – Fedora Commons/DuraSpace
  – MediaShelf LLC

• Unfunded (in itself as a project)
  – Activity based on identification of a common need

• Aim to work towards a reusable framework for multipurpose, multifunction, multi-institutional repository-enabled solutions

• Timeframe - 2008-11 (but now extended indefinitely)
Fundamental Assumption #1

No single system can provide the full range of repository-based solutions for a given institution’s needs,

...yet sustainable solutions require a common repository infrastructure.

Fundamental Assumption #2

No single institution can resource the development of a full range of solutions on its own,

...yet each needs the flexibility to tailor solutions to local demands and workflows.
Hydra is a Repository Solution

Hydra is a repository solution that is being used by institutions on both sides of the North Atlantic to provide access to their digital content. Hydra provides a versatile and feature-rich environment for end-users and repository administrators alike.

Hydra is a Community

Hydra is a large, multi-institutional collaboration. The project gives like-minded institutions a mechanism to combine their individual repository development efforts into a collective solution with breadth and depth that exceeds the capacity of any single institution to create, maintain or enhance on its own. The motto of the project’s partners is “if you want to go fast, go alone. If you want to go far, go together.”

Hydra is a Technical Framework

Hydra is an ecosystem of components that lets institutions deploy robust and durable digital repositories (the body) supporting multiple “heads”: fully-featured digital asset management applications and tailored workflows. Its principle platforms are the Fedora Commons repository software, Solr, Ruby on Rails and Blacklight. See how you can get started.

Hydra is Open Source Software

Hydra software is free and open source, available under an Apache 2 license.
Hydra software

- Fedora
  - All Hydra partners are Fedora users
- Solr
  - Very powerful indexing tool, as used by...
- Blacklight
  - Prior development at Virginia (and now Stanford/JHU) for OPAC
  - Adaptable to repository content
- Ruby
  - Agile development / excellent MVC / good testing tools
- Ruby gems
  - ActiveFedora, Opinionated Metadata, Solrizer, etc.
Fedora and Hydra

• Fedora can be complex in enabling its flexibility

• How can the richness of the Fedora system be enabled through simpler interfaces and interactions?
  – The Hydra project has endeavoured to address this, and has done so successfully
  – Not a turnkey, out of the box, solution, but a toolkit that enables powerful use of Fedora’s capabilities through lightweight tools
    • Principles can also be applied to other repository environments

• Hydra ‘heads’
  – Single body of content, many points of access into it
Hydra partners and users

OR = Open Repositories Conference
Multiple Solution Approach ... Multiple silos?

ETDs (Theses)  Books, Articles  Images  Audio-Visual  Research Data  Maps & GIS  Documents

ETD  IR  Image DB  DAM  ?  Geospatial Inf.  Records Mgmt.

Management  Access  Preservation?

Tailored?  Sustainable?
Repository-Powered Approach

ETDs (Theses)  Books, Articles  Images  Audio-Visual  Research Data  Maps & GIS  Documents

Digital Repository

Scalable, Robust, Shared Management and Preservation Services
One Body, Many Heads…

ETDs (Theses)  Books, Articles  Images  Audio-Visual  Research  Maps & GIS  Documents

Scalable, Robust, Shared Management and Preservation Services

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Four Key Capabilities

1. Support for any kind of record or metadata
2. Object-specific behaviors
   - Books, Articles, Images, Music, Video, Manuscripts, etc.
3. Tailored views for domain or discipline-specific materials
4. Easy to augment & over-ride with local modifications
Adapt to the content

Journal article

CLIF: moving repositories upstream in the content lifecycle

Authors: Waddington, Simon; Green, Richard A.; Awre, Christopher L.

Subjects: CLIF; JISC; Content lifecycle; Institutional repository; Sakai; eBridge; Microsoft SharePoint

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Abstract: The UK JISC Funded Content Lifecycle Integration Framework (CLIF) project has explored the management of digital content throughout its lifecycle from creation through to preservation or disposal. Whilst many individual systems offer the capability of carrying out lifecycle stages to varying degrees, CLIF recognised that only by facilitating the movement of content between systems could the full lifecycle take advantage of systems specifically geared towards different stages of the digital lifecycle. The project has also placed the digital repository at the heart of this movement and has explored this through carrying out integrations between Fedora and Sakai, and Fedora and SharePoint. This article will describe these integrations in the context of lifecycle management and highlight the issues discovered in enabling the smooth movement of content as required.

Date: 2012

Language: English

Publishers: The University of Hull; Texas Digital Library

Published in Journal of digital information, 2012
ISSN (Electronic) 1368 7508
Publisher Texas Digital Library
Volume: 13
Issue: 1

Dataset

HMAP Dataset 06: Newfoundland, 1675-1698

Person: Pope, P. (Author)

Subjects: Population census; History of marine animal populations; Fishing effort; Cod fishery

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Citations:
(a) The dataset: please cite as follows: P. Pope, ed. ‘Newfoundland, 1675-1698’ in M.G Barnard and J.H Nicholls (comp.) HMAP Data Pages (www.hull.ac.uk/hmap); (b) Supporting documentation: please cite as follows: P. Pope, HMAP dataset 6: Newfoundland, 1675-1698, Supporting Documentation, in M.G Barnard and J.H Nicholls (comp.) HMAP Data Pages (www.hull.ac.uk/hmap)

Description: Fishermen, settlers and cod catches in 17th-century Newfoundland.

The map below gives an indication of the extent of the Newfoundland-Labrador shelf; the ‘View as map’ link in the download panel at the right will show a much more detailed representation. The kml file download, when used with Google Earth, will render the extent of the Newfoundland-Labrador shelf in detail.

Coverage: Newfoundland

Temporal: 1675-1698

Geo-data:

Downloads

- Database - ASCII format (txt)
- Database - Access 2000 format (txt)
- Database - csv format (zip)
- Documentation - PDF format (pdf)
- Documentation - text format (txt)
- Documentation - Word (.doc) format (doc)
- Newfoundland-Labrador Shelf - kml file (459 KB, vnd.googleearth.kml+xml)
- View as map

QR code link to this page
Hydra@Hull - upgrade

Welcome to Hull's digital repository, Hydra

The Hydra digital repository is an electronic archive for the University of Hull. It has been developed to hold, manage and preserve the growing amount of digital material generated by the research, education and administrative activities of the University.

Create a search by adding a search term into the search bar below...

Content management

Placeholder. Controls specific to Content Management Team will appear here

Create resources
Create ETD Create Examination paper Create Journal Article

Management links
Set management

Resource queue

Based on latest Hydra software, version 6, and Bootstrap design
Seven strategic Hydra priorities

1. Develop solution bundles
2. Develop turnkey applications
3. Grow the Hydra vendor ecosystem
4. Codify a scalable training framework to fuel community growth
5. Develop a documentation framework
6. Ensure the technical framework allows code sharing
7. Refresh and intensify the community ties
Thank you

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Hydra at Hull – http://hydra.hull.ac.uk

Hydra Project – http://projecthydra.org