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(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



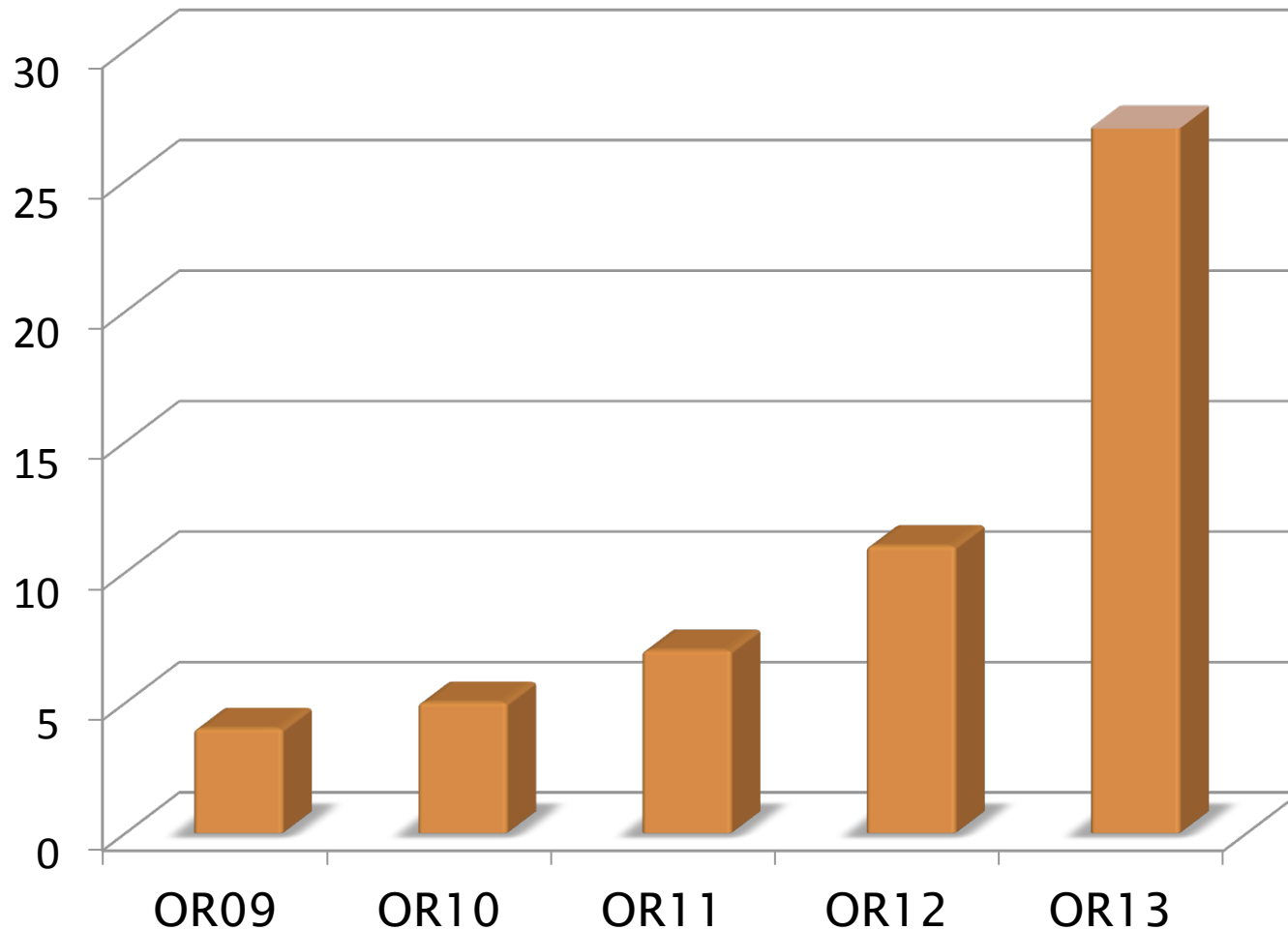
- Fedora
 - All Hydra partners are Fedora users
- Solr
 - Very powerful indexing tool, as used by...
- Blacklight
 - Prior development at Virginia (and now Stanford/JHU) for OPAC
 - Adaptable to repository content
- Ruby
 - Agile development / excellent MVC / good testing tools
- Ruby gems
 - ActiveFedora,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



UNIVERSITY OF
NOTRE DAME

NORTHWESTERN
UNIVERSITY



Stanford University

LSE

THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE



INDIANA UNIVERSITY

Duke
UNIVERSITY



UNIVERSITY OF Hull

PENNSTATE



UNIVERSITY of VIRGINIA

BOSTON
PUBLIC LIBRARY



THE ROYAL LIBRARY

National Library of Denmark and Copenhagen University Library

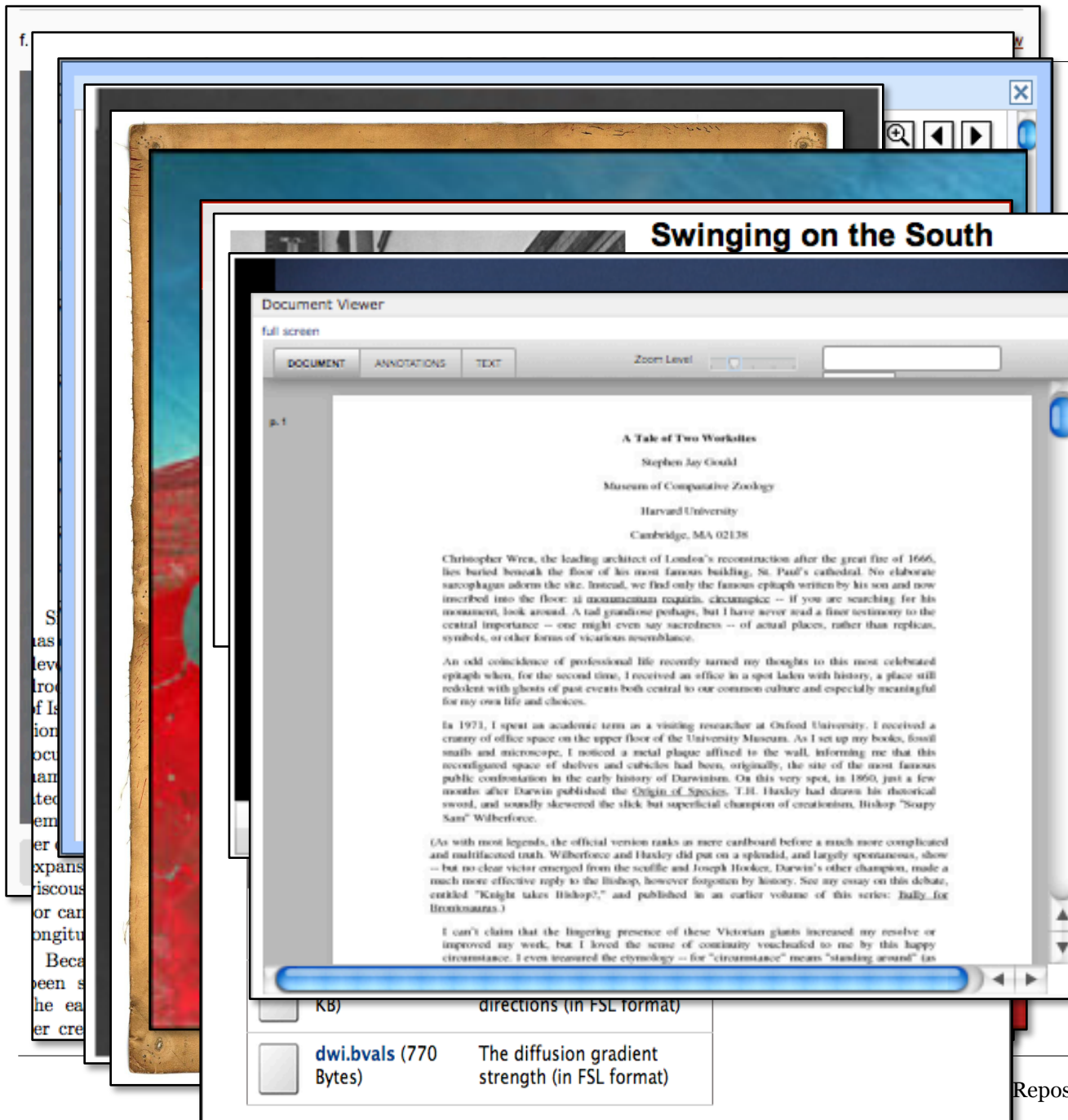


COLUMBIA UNIVERSITY

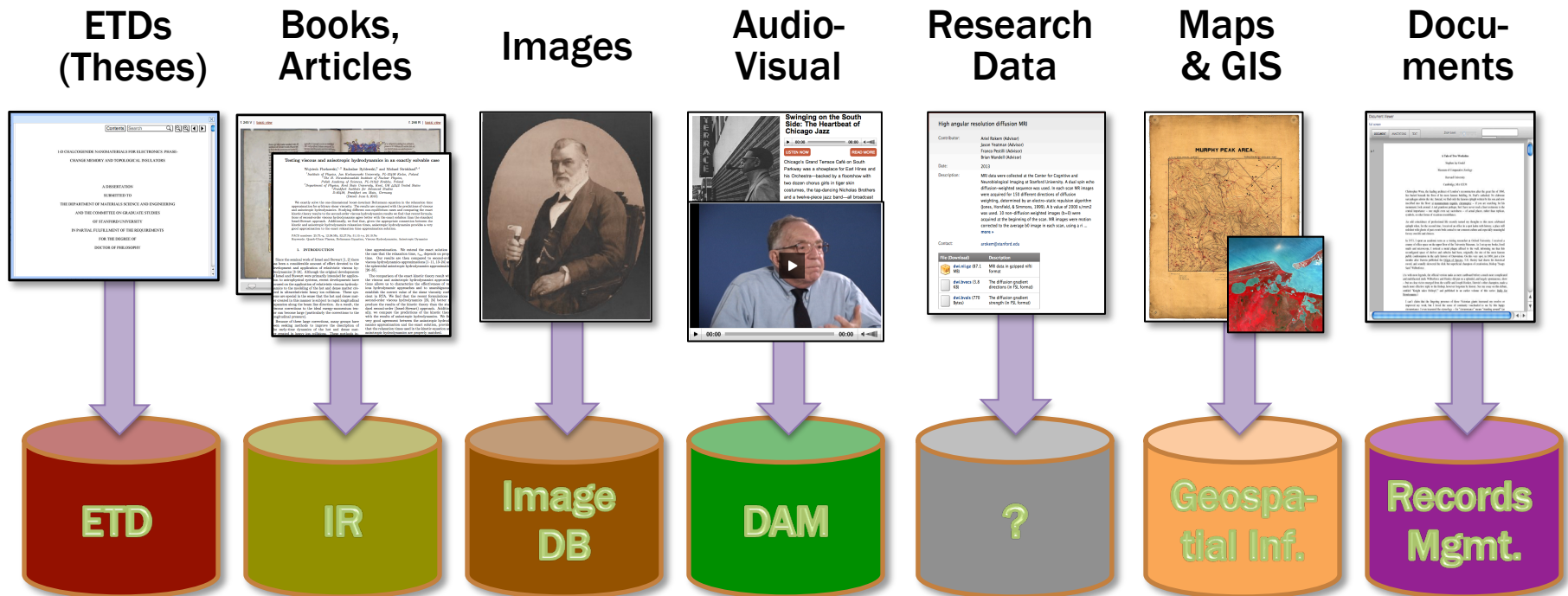
DURASPACE.ORG

Yale University

Books
Articles
Theses
Images
Maps
Data (Raster)
Data (Comp.)
Audio
Video
Documents



Multiple Solution Approach ...Multiple silos?



Management

Access

Preservation?

Tailored?

Sustainable?

Repository-Powered Approach

**ETDs
(Theses)**

**Books,
Articles**

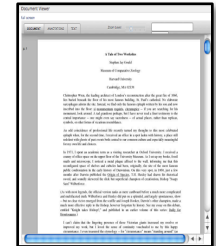
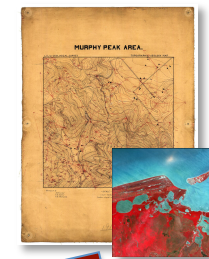
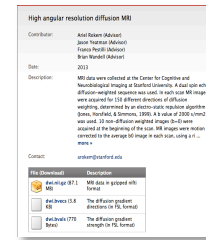
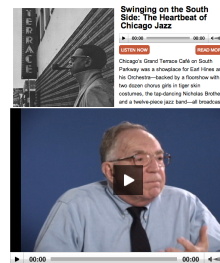
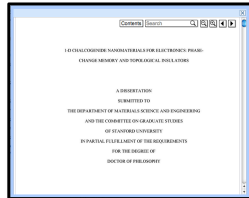
Images

**Audio-
Visual**

**Research
Data**

**Maps
& GIS**

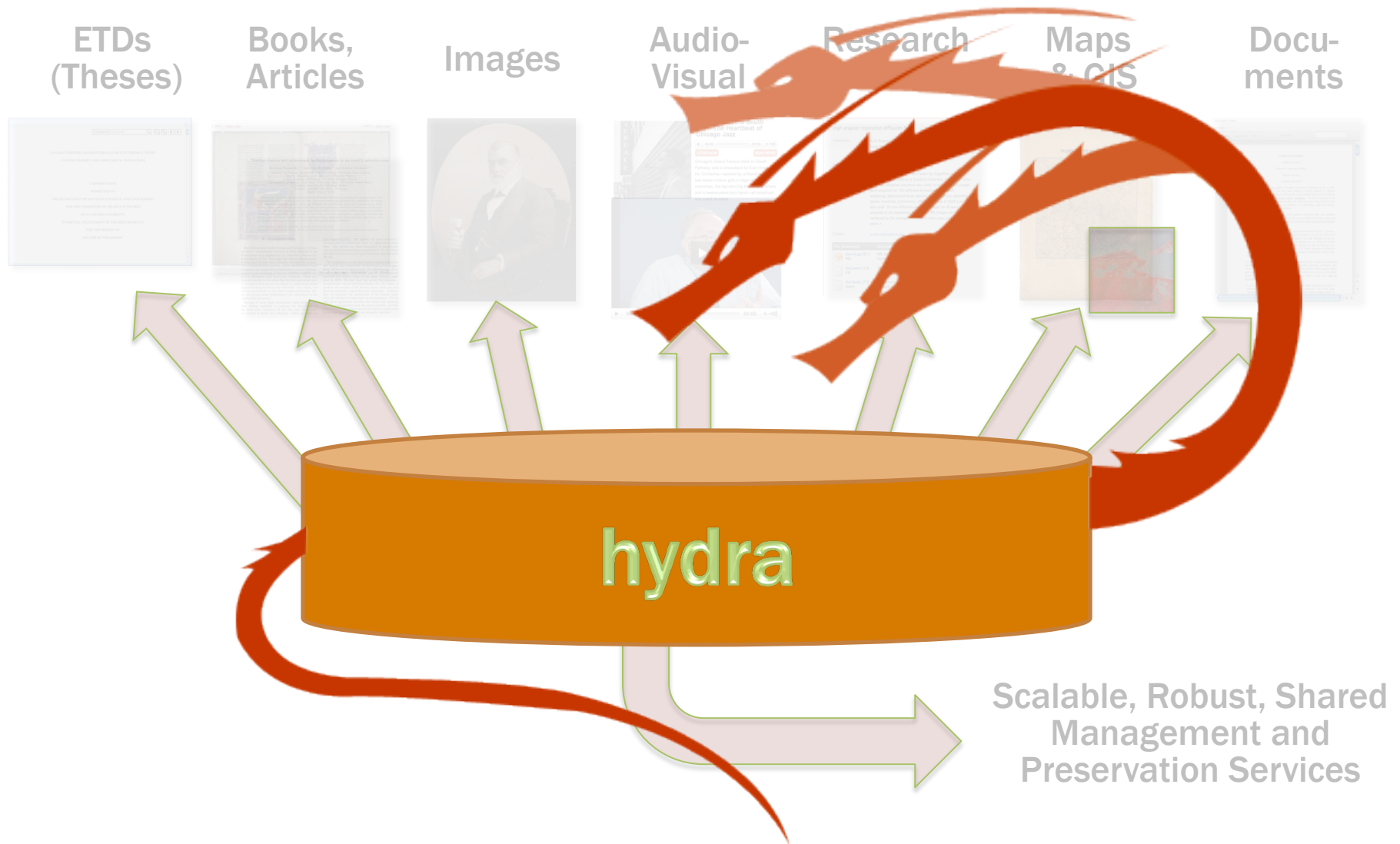
**Docu-
ments**



Digital Repository

**Scalable, Robust, Shared
Management and
Preservation Services**

One Body, Many Heads...



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

CLIF : moving repositories upstream in the content lifecycle

Published in Journal of digital information, 2012
ISSN (Electronic) 1368-7506
Publisher Texas Digital Library
Volume 13
Issue 1



HMAP Dataset 06: Newfoundland, 1675-1698

QR code link to this page



Hydra@Hull

Datasets

Committee papers

E-prints/journal articles

Books

Student handbooks

Digitised content

Exam papers

Images

Lectures

Open educational resources

Audio recordings

Theses

Strategy documents

Dissertations

University policies, procedures and regulations

Hydra@Hull - upgrade



The screenshot shows the Hydra@Hull digital repository interface. At the top is a dark navigation bar with the 'hydra' logo, 'Digital Repository' text, and links for 'Home', 'About', 'Contact', 'Sign in', and 'Search History'. On the right of this bar is the 'UNIVERSITY OF Hull' logo. The main content area has a large orange header with the text 'Welcome to Hull's digital repository, Hydra'. Below this, a paragraph describes the repository as an electronic archive for the University of Hull. A search bar with a 'Search' button is provided. The left sidebar contains sections for 'Content management' (with a placeholder), 'Create resources' (with links to 'Create ETD', 'Create Examination paper', and 'Create Journal Article'), 'Management links' (with a link to 'Set management'), and 'Resource queue'.

hydra Digital Repository Home About Contact Sign in Search History

UNIVERSITY OF Hull

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...

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>

