What is Hydra?

Hydra is a large multi-institutional collaboration. The project provides a mechanism to combine individual repository development efforts into a collective solution with breadth and depth that exceeds the capacity of any individual institution to create, maintain or enhance on its own.

“If you want to go fast go alone, if you want to go far, go together”
(African proverb)

Hydra is an ecosystem of components that lets institutions deploy robust and durable digital repositories (the ‘Hydra body’) supporting multiple ‘Hydra heads’. The principle components are Fedora, Solr, Ruby on Rails and Blacklight.

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

Hydra and scholarly communications

Hydra has been applied to open access through both self and mediated deposit of research articles and theses, managing open and restricted access. Looking beyond publications, Hydra is also being used for research data and non-textual scholarly communication.

Get involved

Hydra is an open community - please get in touch!

Hydra Connect
https://wiki.duraspace.org/display/hydra/Connect

Hydra GitHub
https://github.com/projecthydra

Hydra community governance

Hydra Partners
- shape and direct work
- commission ‘Heads’
- functional requirements & specs
- UI design & spec
- documentation
- training
- data & content models
- ‘user groups’

Hydra Developers
- define tech architecture
- code development
- integration & release

Committers
Contributors
Tech. Users

Hydra Steering Group
- small coordinating body
- collaborative roadmapping (tech & community)
- resource coordination
- governance of the “tech core” and Hydra Framework
- community metrics & growth

Founders
- DuraSpace
- Hull
- Stanford
- UVA

Hydra software ‘gems’

ActiveFedora/Rubydora - Used to apply the ActiveModel pattern to working with Fedora using Ruby
Opinionated Metadata - Enables flexibility in metadata management
Solrizer - Passes repository objects to Solr for indexing
Hydra head - a combination of Ruby gems providing workflow functionality

Hydra - adaptable to changing needs

Key to Hydra’s design is its ability to be adapted to meet different use cases. The software components can be used independently, or combined to suit requirements. Hydra also enables user interface and workflow flexibility to suit the management and delivery needs of different content collections.

Hydra architecture

Hydra-head Rails Plugin
ActiveFedora
OM

Blacklight
(Read Only)

Fedora

Solrizer

Solr

See also...

Penn State University
ScholarSphere is Penn State’s institutional repository, set up to enable self-deposit and preservation of any type of research output. It is based on a Hydra head turnkey solution called Sufia. https://scholarsphere.psu.edu/

University of Hull
MediaShelf
Columbia University
London School of Economics
Data Curation Experts
Duke University

The Royal Library of Denmark
Hydra is providing the infrastructure for the Royal Library’s digital library, for curation and dissemination of artefacts. Hydra also supports self-archiving of student papers. http://dias.kb.dk/

University of Virginia
University of Notre Dame
Penn State University
Rock and Roll Hall of Fame
WGBH
Yale University

CASE

STUDIES

The Rock and Roll Hall of Fame
The museum is using Blacklight for its library catalogue, and presents this combined with the digital archive records created using a behind the scenes Hydra head designed by their one developer. http://catalog.rockhall.com/