

Introduction to Hydra for New Managers

Hydra Connect 3

Minneapolis, MN Sept 2015

Let's start with you ;-)

If you could walk away with one question answered, what is that question?

Topics to discuss

- Why Hydra?
 - Core Purpose
 - The Hydra Way
- What is Hydra?
 - The Stuff
 - The People
 - The Value
- Management Concerns
 - Technical
 - Resourcing – Staff & Support & Money
 - Legal
- How to get started
- How to stay involved

Why Hydra?

**“If you want to go fast, go alone, if you want to go far, go together”
African Proverb**

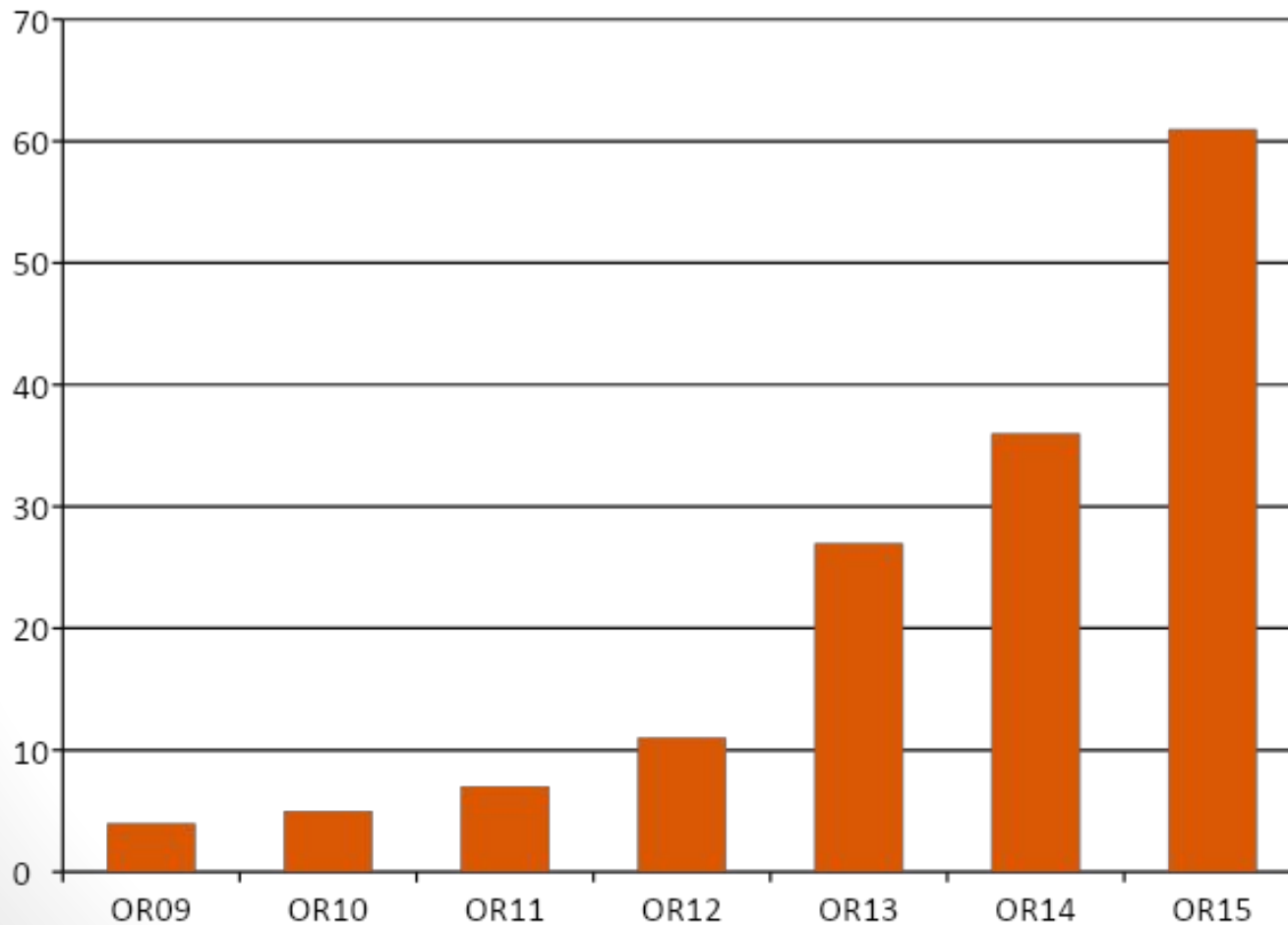
- Aim to work towards a ***sustainable, open source reusable*** framework for multipurpose, multifunction, multi-institutional repository-enabled solutions
- Challenges
 - Do more with less
 - Do it fast *enough*
 - Do it well
 - Get back on your feet quick
- The Hydra Way - Working in Community
 - Shared Purpose
 - Continual Engagement & Assessment
 - Tangible Results

What is Hydra? Community...



Community Growth

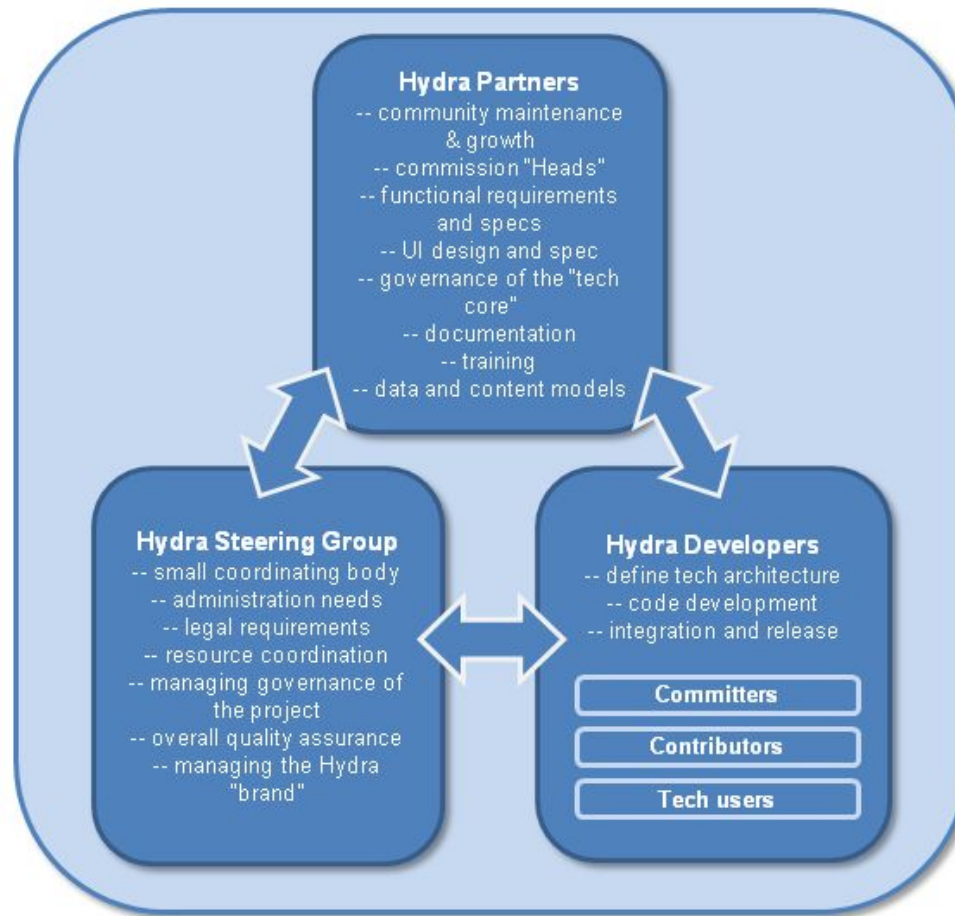
Current and Known Users



Value – Lower Risk & Sustainability

- Hydra initially set itself up as a project for three years
- The project recognised the need to establish a community and mode of practice for the technology outcome to be sustained
- Community interest and now involvement have led to an indefinite continuation of Hydra
 - 3 -> 29 Partners in 5 years, plus many other users
- Dynamic combination of the factors mentioned in this presentation, all underpinned by mutual desire to ensure Hydra's future sustainability

The Community model...



Working together - PCDM

- Portland Common Data Model
 - <https://github.com/duraspace/pcdm/wiki>
- An initiative that sprung up from within the Hydra community in November 2014
- Desire to create a common but flexible and extensible domain model to describe content across DAM applications
 - Started as Hydra initiative, not expanded to generic use, e.g., within Fedora generally
- Input from the community vital to making this work

Check In - Is this what you
thought you were getting
into?

What Questions do you have
at this point?

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

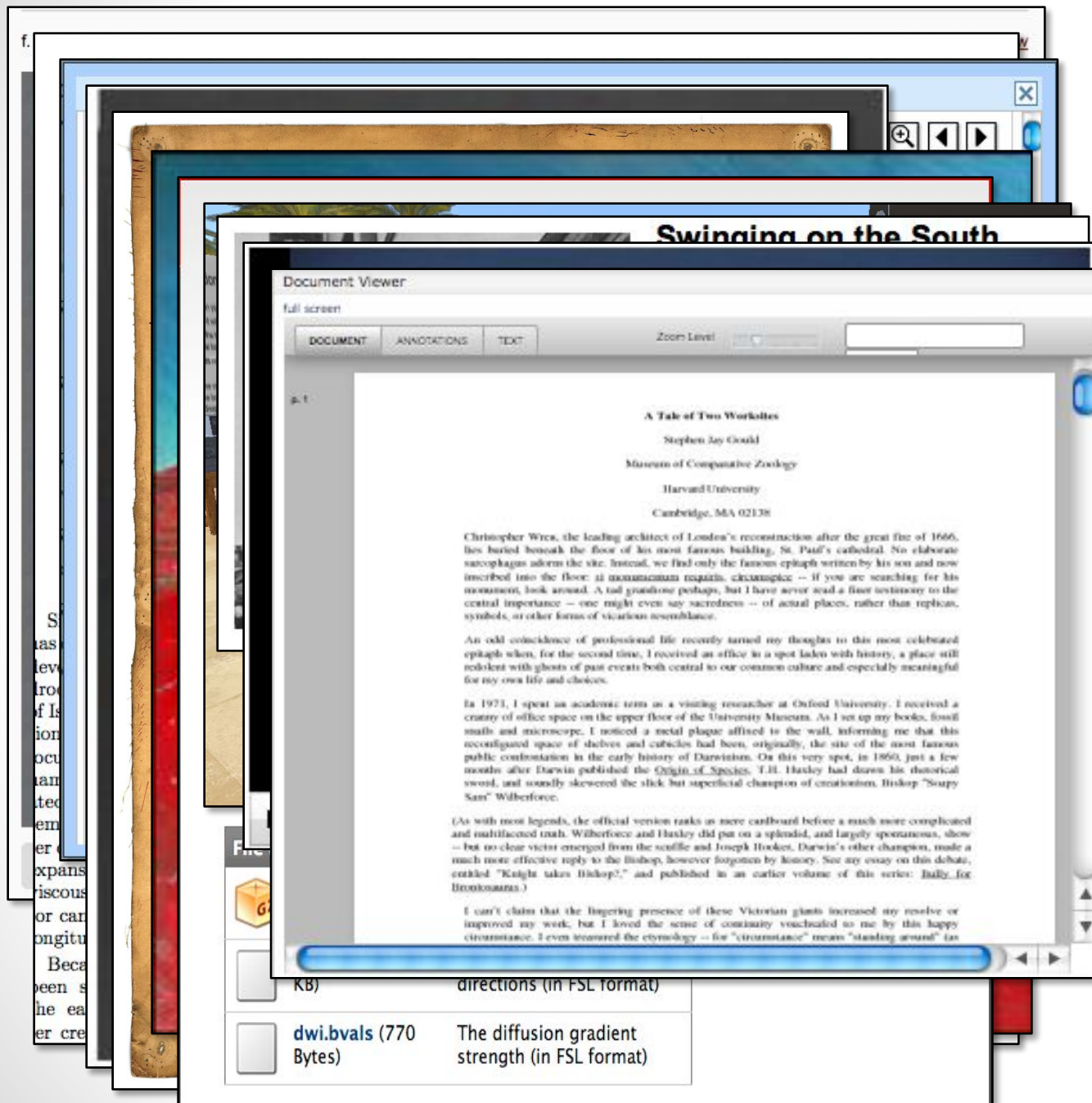
...yet sustainable solutions require a common repository infrastructure.

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.

What is Hydra? Solutions...

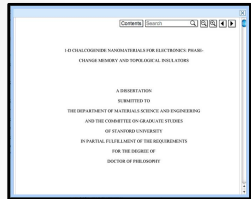
- A robust repository fronted by feature-rich, tailored applications and workflows (“heads”)
 - *One body, many heads*
- Collaboratively built gems and “solution bundles” that can be leveraged or adapted and modified to suit local needs.
- A community of developers and adopters extending and enhancing the core framework
- Technical Training & Support
- Open source software



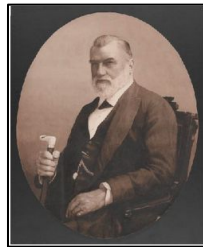
Book
Articles
Theses
Images
Maps
Data
(Data)
(Data) (Observ.)
Audio
Video
Documents

Point Solution Approach ...Welcome to

Siloville
 ETDs (Theses)
 Books, Articles



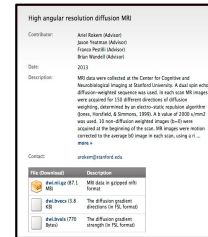
Images



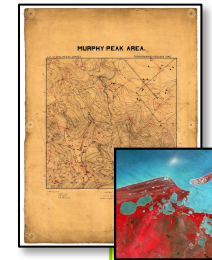
Audio-Visual



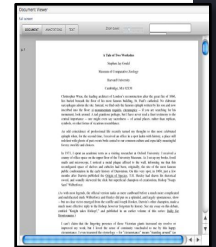
Research Data



Maps & GIS



Documents



ETD

IR

Image DB

DAM

?

Geospatial Inf.

Records Mgmt.

Management

Access

Preservation(?)

Effective?

Sustainable?

Repository-Powered Approach

ETDs
(Theses
)

Books, Article s

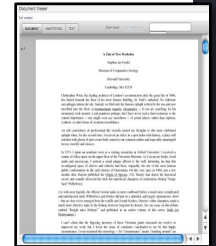
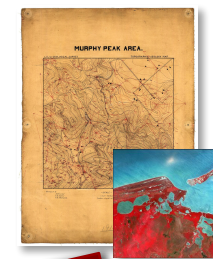
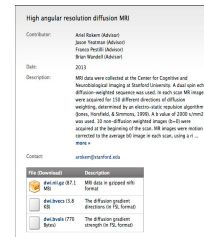
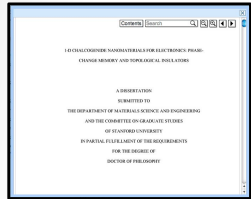
Images

Audio-Visual

Research Data

Maps & GIS

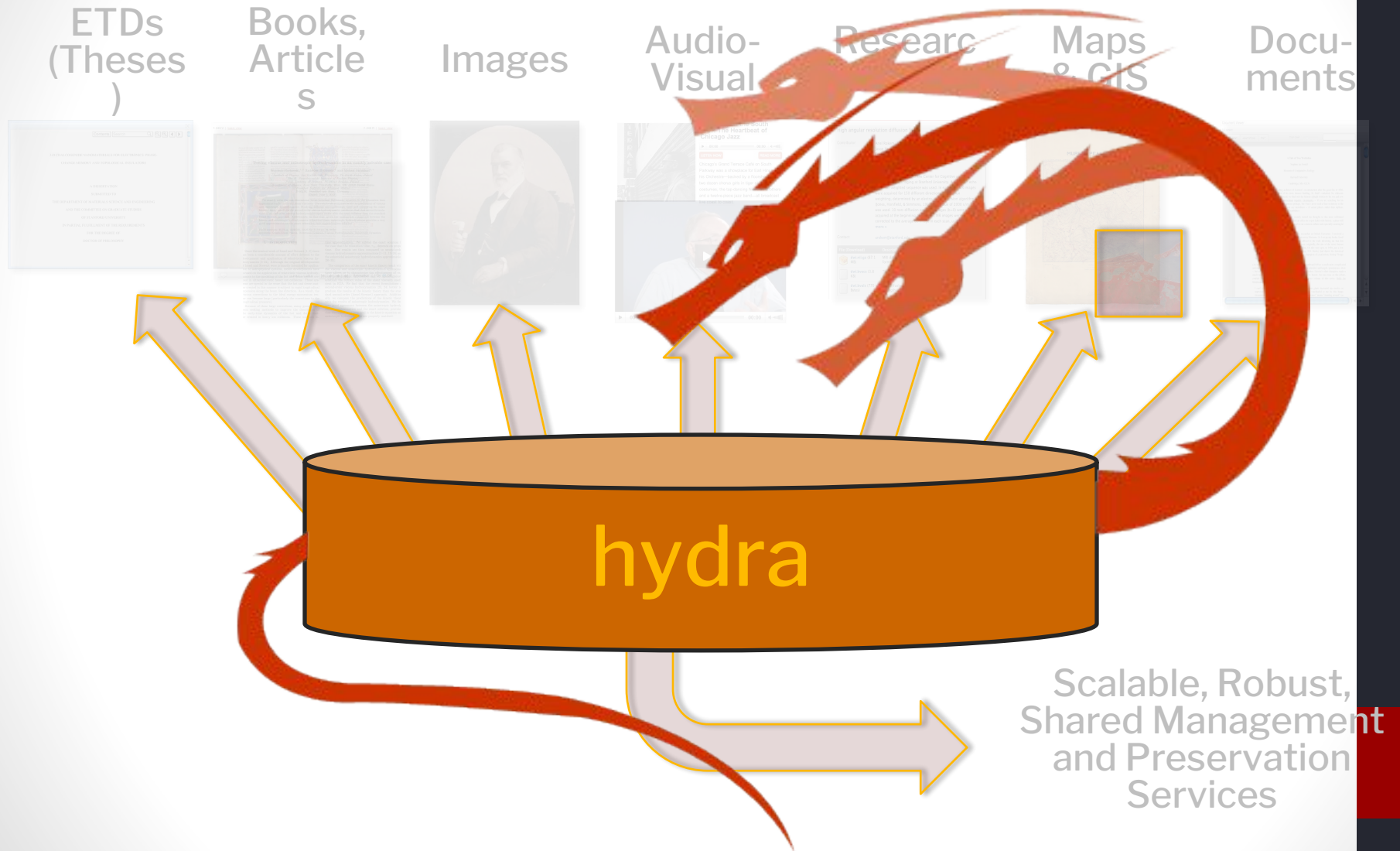
Documents



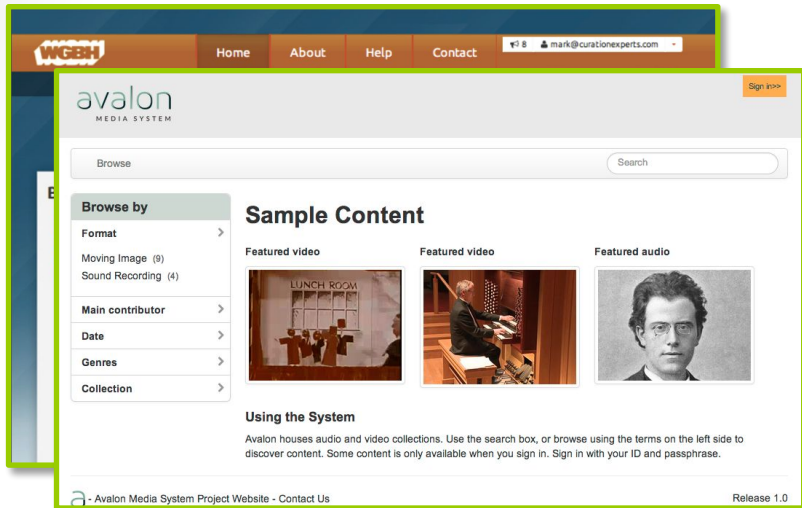
Digital Repository

Scalable, Robust, Shared Management and Preservation Services

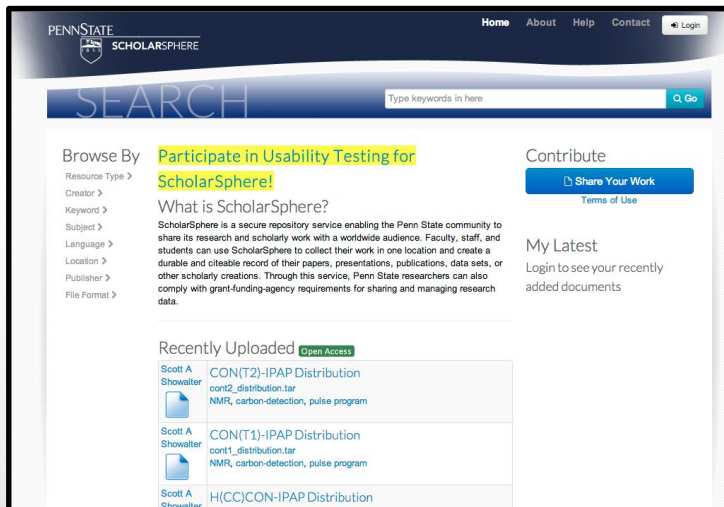
One Body, Many Heads...



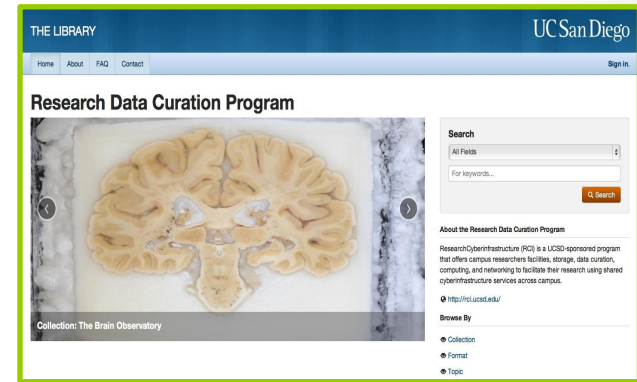
Hydra Heads of Note



Avalon & HydraDAM for Media



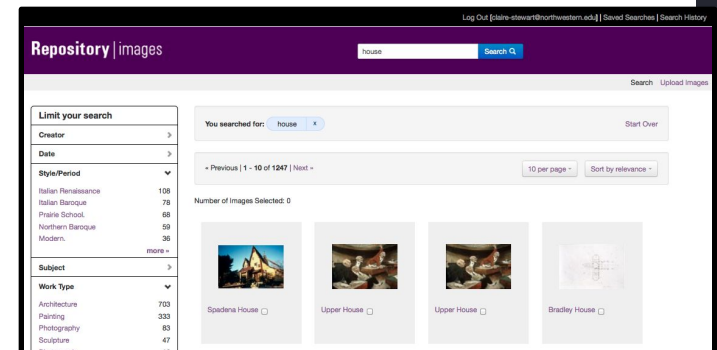
Sufia



UCSD DAMS



BPL Digital Commonwealth



Northwestern Digital Image Lib.

Check In 2 – How are we
getting on?

What Questions do you have
at this point?

Hydra Technical Framework

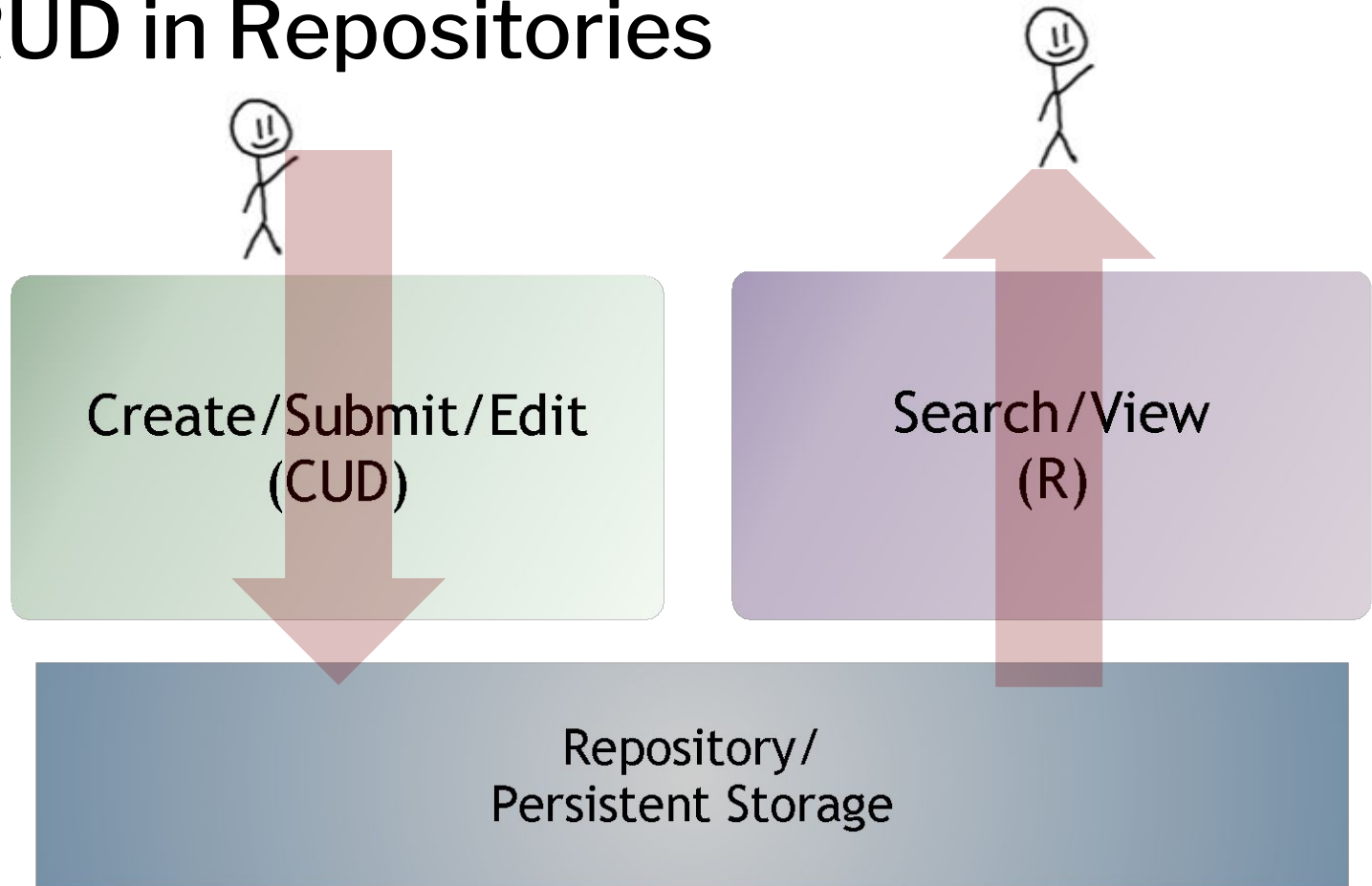
CRUD in Repositories

Create/Submit/Edit
(CUD)

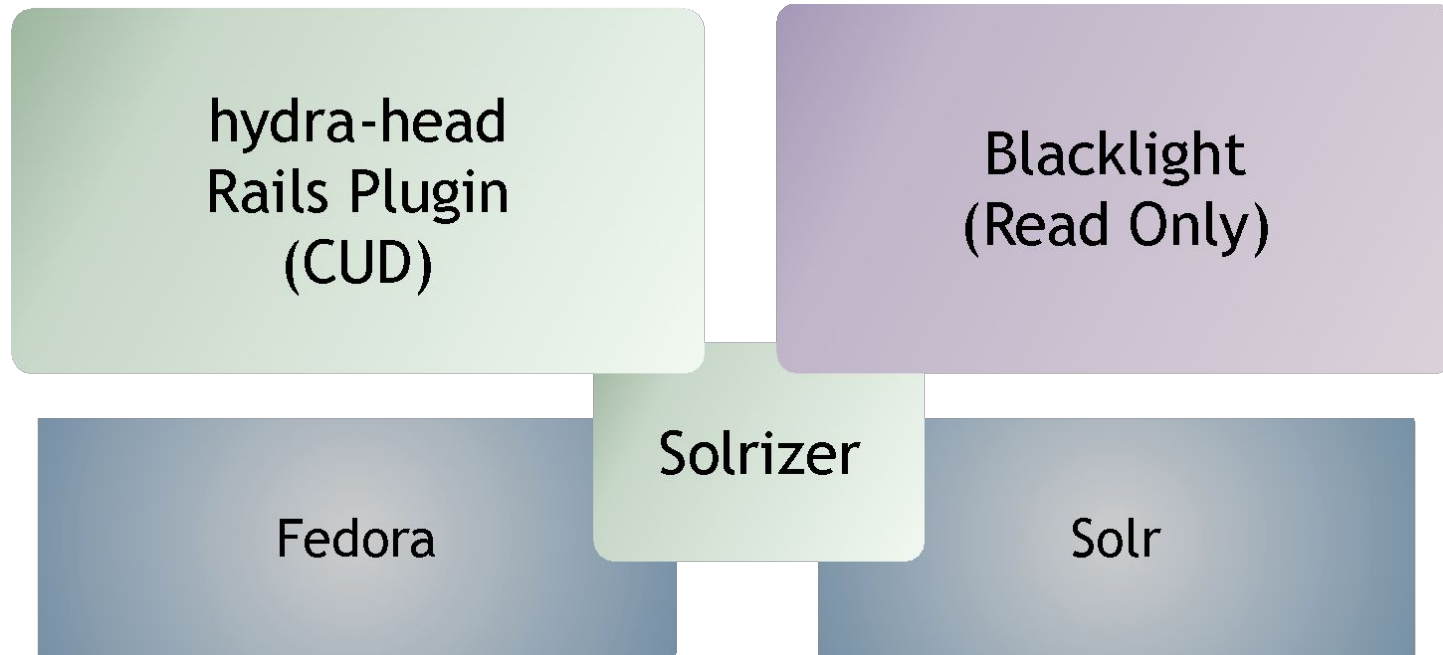
Search/View
(R)

Repository/
Persistent Storage

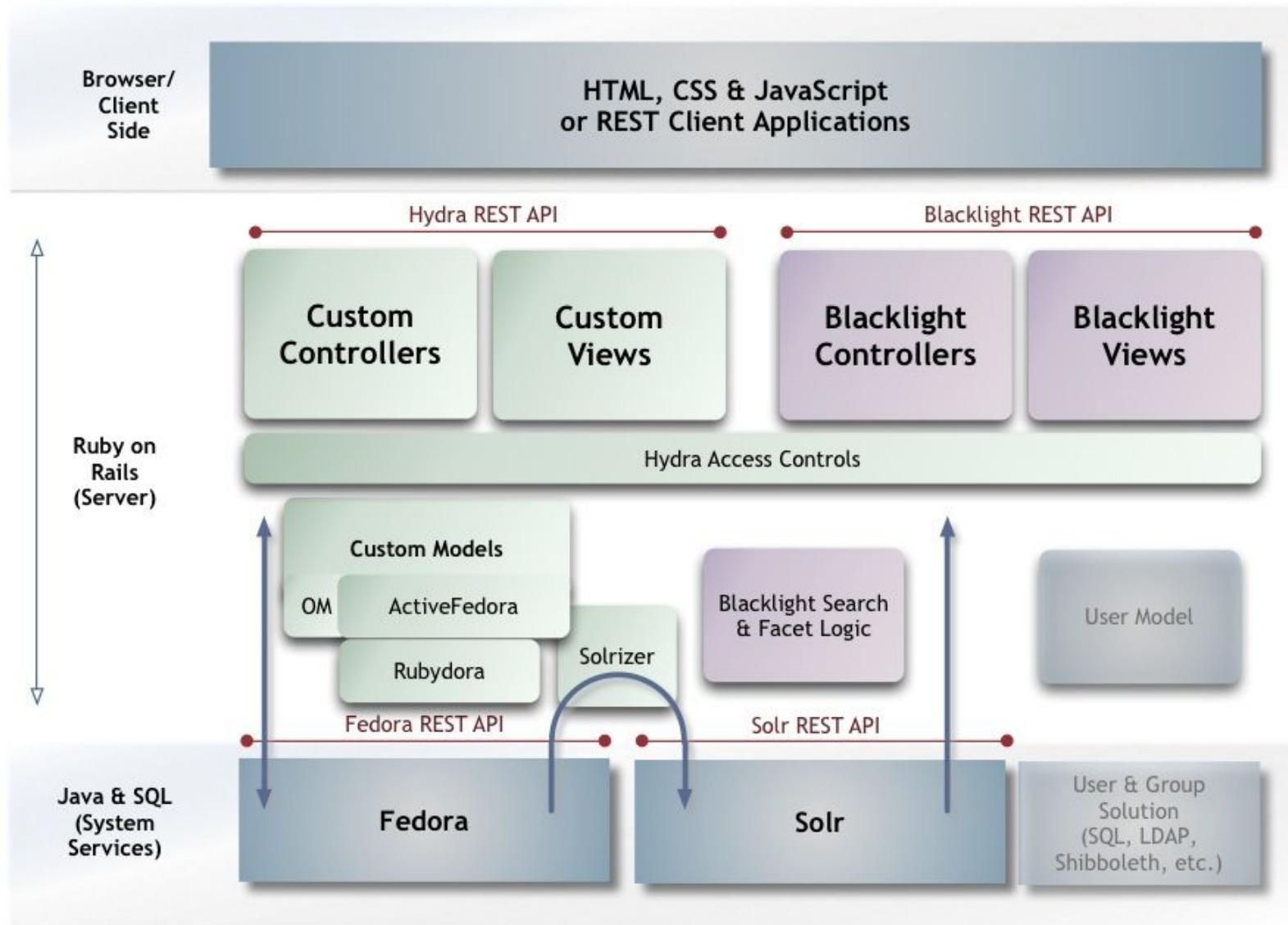
CRUD in Repositories



Major Hydra Components



The Hydra Stack



Hydra's Core Gems

Rails engine with “everything you need to build a user-facing app”

DSL (domain specific language) for easy mgmt of XML metadata

Applies ActiveModel pattern to working with Fedora objects

Client API for consuming Fedora's REST API via Ruby



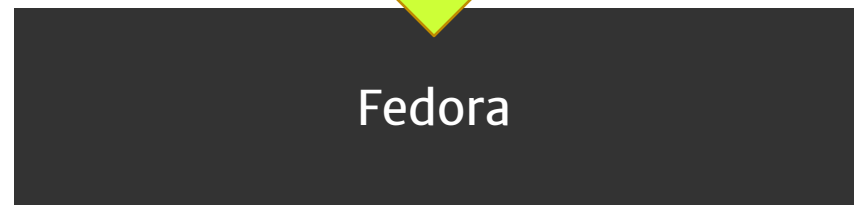
hydra-head

OM (Opinionated Metadata)

ActiveFedora

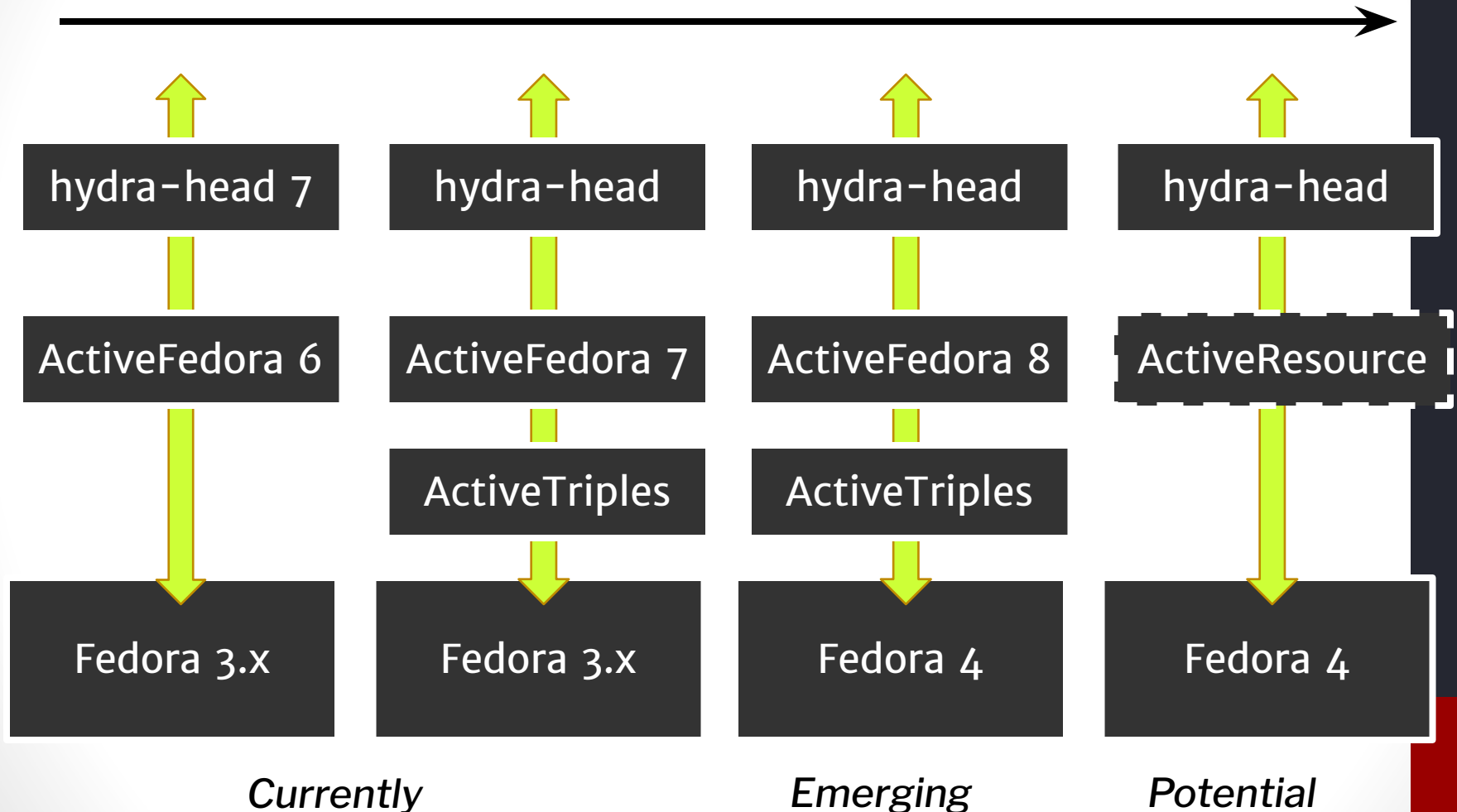
rubydora

Fedora



Hydra's Core Gems

time



Management of Technical

- Shared development platform through github
- Test-driven software development
 - Nothing gets in without full tests showing code does what it is supposed to
- Ruby on Rails offers a highly flexible environment for creating solutions and rapid development
 - Very well resourced global library of components (gems) to tap into
- Very active and responsive developer community
- Well structured code contribution and licensing

Management of Staff

- Staffing required will depend on your aims
- Hydra Partner staffing varies
 - 7-8 staff at Stanford
 - Single developers at Rock'n'Roll, Hull, WGBH
- Never limited by local staffing
 - Community input available additionally
- Vendor support available for initial implementation or specific development
- Good to blend technical and curatorial staff as part of development and operation

Staff

- A certain knowledge set is required to work with Hydra
 - Technical knowledge through training and testing
 - Functional knowledge through awareness of collection(s) and how they should be curated
- Focus on working according to the Hydra Way
 - Enabling, for all concerned
 - Working together across institutions
- Work out what you need in-house and what you need to call on from outside
- NB. We have all worked through this – you are not alone

Management: Financial

- Hydra is open source software
 - Free to use, under the Apache 2.0 licence
- Investment will be according to scale of need
 - Developer resource
 - Repository management resource
 - Hardware / Training / Vendor support
- Additional costs in more active involvement
 - But worth investment to make progress together
- Save money cf. sustaining a local solution
 - And help others as others have helped you

Management: Legal

- Apache 2.0 licence previously mentioned
- All contributions are made under a Contributor Licensing Agreement, granting a perpetual licence to the Hydra Project – based on Apache
 - Corporate
 - Individual
- All documentation is shared using a CC-BY-SA Creative Commons Licence
- Partners sign an MoU highlighting expectations and requirements of Partnership

Check In 3 – Time to talk

Breakout

- Those working at Partner sites
- Those at non-Partner sites

What else would you like to know?

How does this session connect with your local situation?

Getting going



Getting going

- Once decided to pursue Hydra, how to get involved?
 - The breakdown below can be applied
 - Functional
 - Community
 - Technical
 - Staff
- The resources are there for you to go ahead and get going by yourself
- It would be great if you decided to join in and made progress with the community

Different models

- Small - single institution or narrow or focus
 - Hull
 - Libra – UVA
 - Rock & Roll Hall of Fame
- Large – multi-institution, wider adoption
 - Sufia – PSU, DCE and now WGBH plus many others
 - Avalon – Northwestern and Indiana, but also widely adopted
 - Spotlight – Stanford & DCE, getting wide attention

Hiring & Training

- Hiring

- Advertising - Enrolling in the Hydra Way
- Individual Professional Growth
- Career Networking
- Wider Mission

- Training

- HydraCamps - ~3 a year, at least one in Europe
 - DCE – our preferred training partner
 - Training the Trainer
 - Basis - Documentation and Major Hydra Core Release

Technical Stuff & Support

- Start with the github site for the Hydra core
 - <http://github.com/projecthydra/hydra>
 - Use the Dive into Hydra tutorial
 - Railsbridge tutorials also good for those new to Ruby
- Distinct heads and gems are available through the github site as well – <http://github.com/projecthydra>
- Use hydra-tech and the projecthydra IRC channel to see latest developments and ask questions

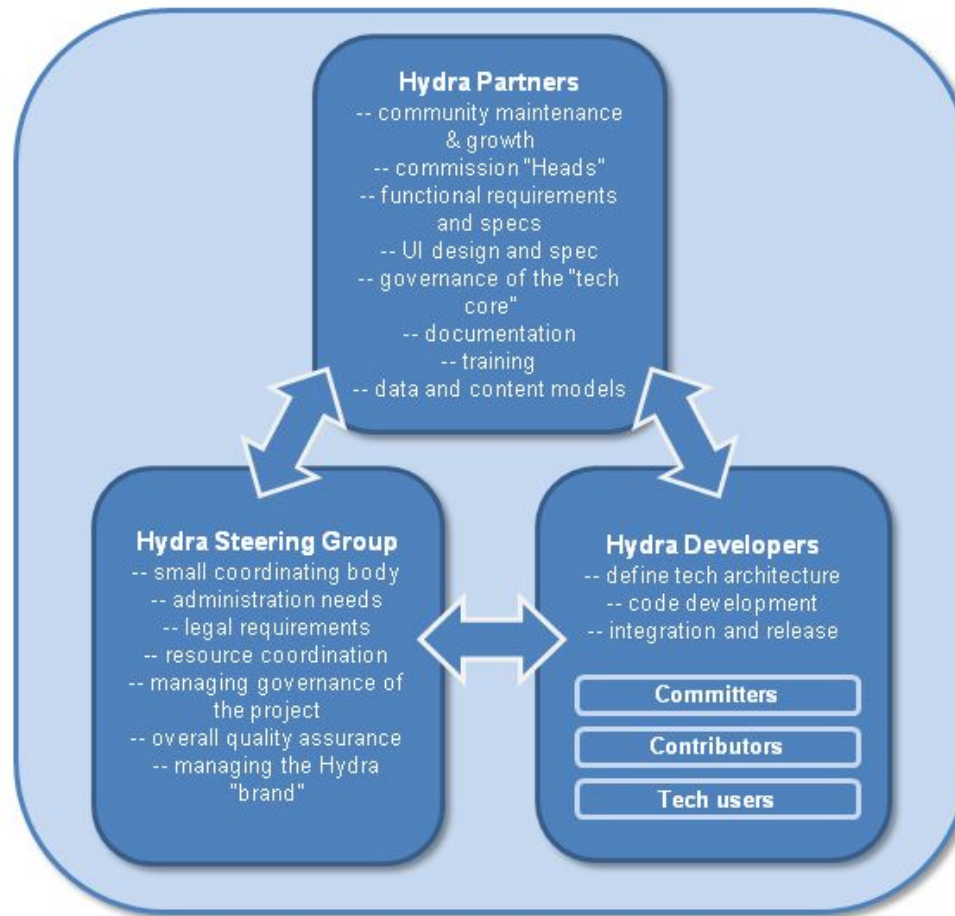
Wider Community Support

- Make use of the available resources
 - Website
 - Wiki
 - Github
 - Email discussion lists
- Identify a Hydra Partner doing similar work and get in touch
- Identify need for vendor input and make contact to discuss options
- Come to events (like this one!)

Get involved - many hands make light work!

- Getting involved with Hydra can be at different levels
 - Adopter
 - Developer
 - Partner
- Need to ask:
 - What involvement is required to enable you to meet your needs?
- But also,
 - How can a manager get involved?
 - Community Advocacy
 - Strategic Planning
 - Meetings – Facilitate, Record and Speak Out!

The Community model...



Stay connected

- Website (<http://projecthydra.org>)
- Wiki page
(<http://wiki.duraspace.org/display/hydra/The+Hydra+Project>)
 - Partner meeting agendas & notes
 - Events & Details
- Monthly Partner calls
- Partner listserv
- Hydra Partner meetings & Hydra Connect
- Other conferences with strong Hydra presence
 - Open Repositories
 - Code4Lib
 - DLF
 - Others (in Europe?)?

A word of (polite) warning

- Hydra is open source – anyone can use it freely
- Working with Hydra is not, though, free
 - As in ‘puppies are not free’
 - It requires investment
 - Towards achieving a goal
 - Towards sustaining a solution
- Hydra recognises this and is seeking to provide a way to invest in a mutual direction of travel – come with us!

Thank you

...and questions

Chris Awre – c.awre@hull.ac.uk

Karen Cariani – karen_cariani@wgbh.org

Tom Cramer – tcramer@stanford.edu

Robin Ruggaber – robin.ruggaber@virginia.edu

