



**Designing & Building a Reusable Framework for
Multipurpose, Multifunction, Multi-institutional
Repository-Powered Solutions**

Open Repositories 2009

18 – 21 May

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In the beginning...

Two JISC-funded projects at Hull both using Fedora

- RepoMMan (2005-2007)
 - Using a repository as part of a personal workflow
- REMAP (2007-2009)
 - ‘Intelligent’ objects: records management and preservation



Brief encounters at OR08

- Presentation at the OR08 Fedora days in Southampton about RepoMMan and REMAP
- Hurried conversation afterwards with Thornton Staples (Fedora Commons) that “we need to talk!”
- Slightly longer conversation about the need for a dissertation repository at the University of Virginia and the idea of using some of the RepoMMan/REMAP work.



A project is born

- Meeting in Charlottesville, VA September '08
 - Fedora Commons
 - Stanford University
 - University of Hull
 - University of Virginia
- Agreement to work together to produce an end-to-end, flexible, extensible, Fedora application kit
 - a 'Lego' set of services and templates
- Hydra: autumn 2008 – summer 2011
 - a reusable framework for multipurpose, multifunction, multi-institutional repository-powered solutions



Why Hydra?

- Clear business need for a flexible, reusable application framework
 - Rapid development of multiple systems tailored to distinct needs (multiple ‘heads’)
 - One underlying repository
- Common need at all three participating universities



Multipurpose

- Multiple repositories already in use with the Hydra partners
- Identified needs for more – 12+ use cases and content types
- Hydra specification based on full range of use cases and content across the partners



Multipurpose

- Digital Library use cases
 - Accessioning, management and delivery of variety of electronic content, in multiple formats, complex workflows
- Institutional Repository use cases
 - Including deposit, management and dissemination of scholarly materials



Multipurpose

- Personal Repository use cases
 - Workspace for scholars to help manage their individual or group research through its complete lifecycle
- Integration with other systems
 - e.g. learning management systems and digital asset discovery and delivery applications



Multipurpose

- Generic templates for common solutions which can be locally tailored for specifics
- Critical if Hydra is to support across institutions
 - Different classes of users
 - Differences in workflows
 - Different content types

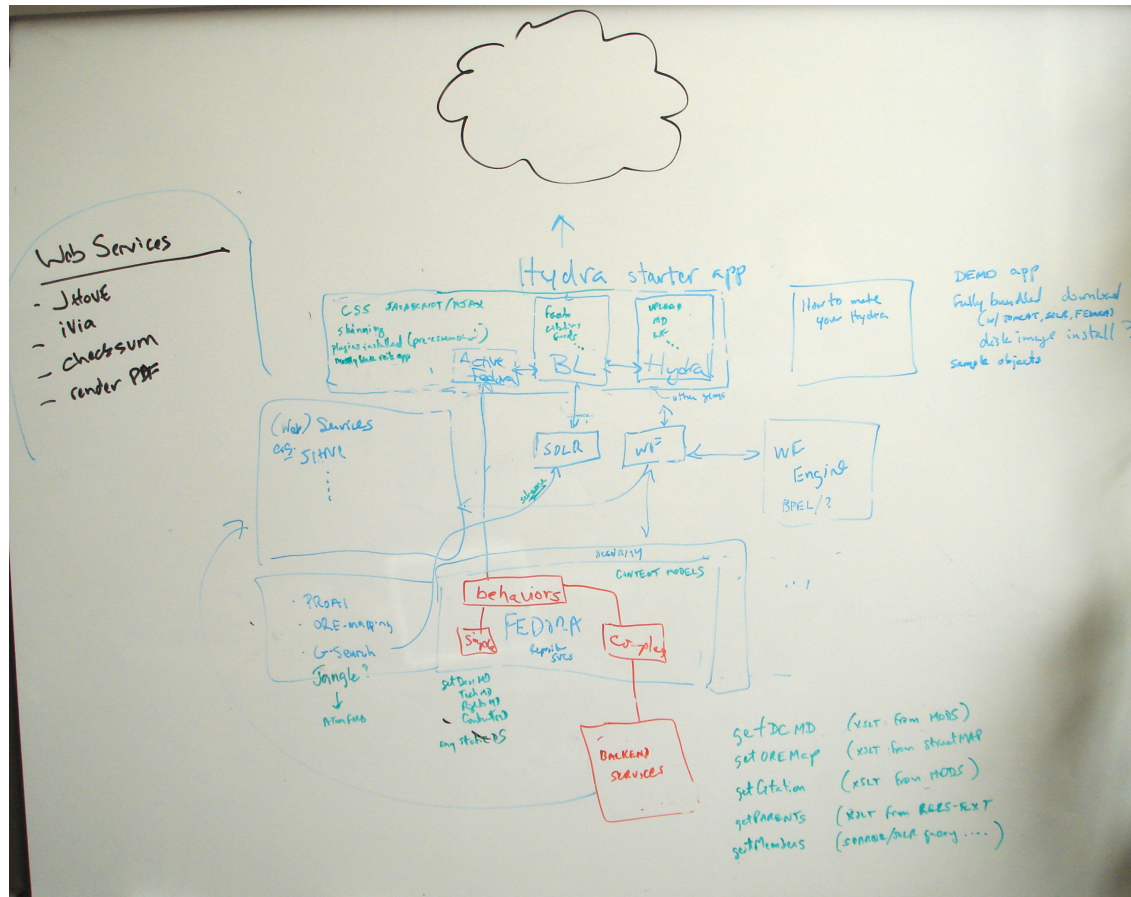


Design Principles

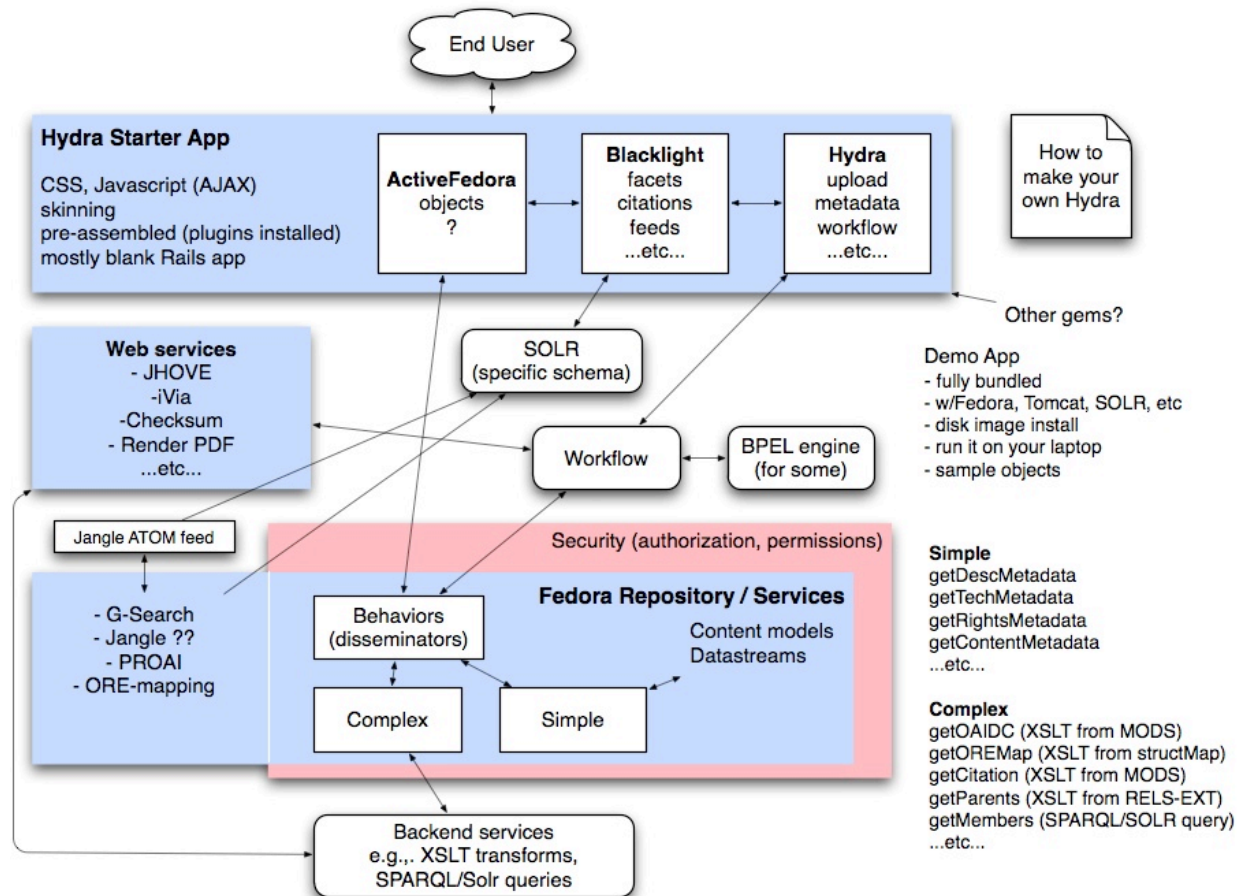
- Reuse & rapid development
- Reusable “Lego bricks”
- Flexible content models
- Simple disseminators
- Easily skinned UI
- Reusable user interaction widgets



Technology Stack



Technology Stack



Blacklight

Catalog Music

brahms All Fields Results per page 10 Search


Displaying items 1 - 10 of 1,776 for the search brahms (Start over?)

Sort by Relevancy Get updates with RSS

1 2 3 4 5 6 7 8 9 ... 177 178 Next »


1 Join

Author Brahm, Daniela
Format Book
Publication Date c2005
Call Number N6888 .B6475 A4 2005
Availability check availability




2 Brahms

Format Cassette; Musical Recording
Publication 198-?
Call Number C 1530
Availability check availability



3 Brahms

Author Biret, Idil



Multifunction

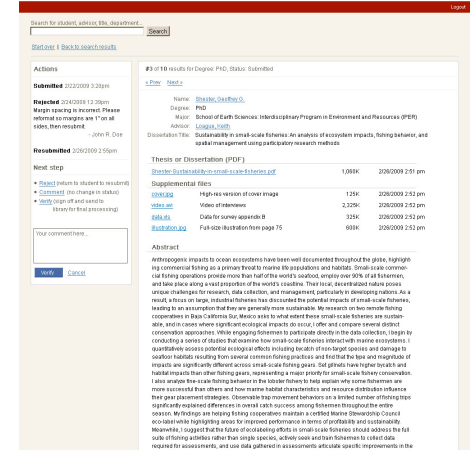
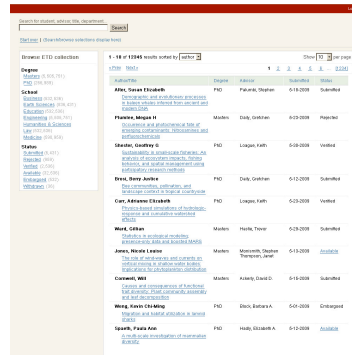
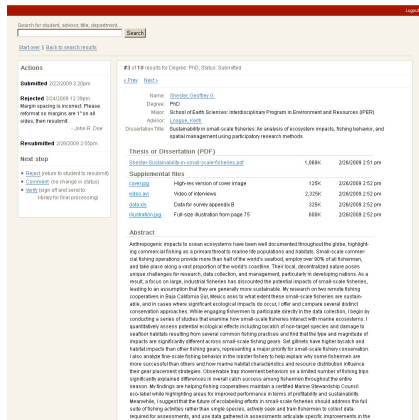
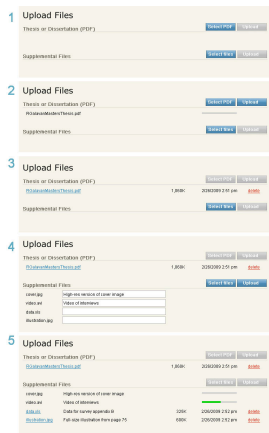
- Deposit
- Manage
 - Edit Objects
 - Set Access
- Search
- Browse
- Deliver

Plus

- Authentication
- Authorization
- Workflow



Multifunction



Deposit

Search & Browse

Deliver

Manage



Open Repositories 2009: Atlanta 18-21 May

Velocity

- Install & Build Fedora 3.1 2 weeks
- Learn Ruby on Rails (x2) 1 week
- Adopt ActiveFedora 2 weeks
- Create Upload UI 2 weeks
- Integrate Blacklight 4 hours

- *Create Manage UI* 2 weeks?



Multi-Institutional: Core Team

- Thorny Staples, Fedora Commons
- Tom Cramer, Stanford University
- Lynn McRae, Stanford University
- Willy Mene, Stanford University
- Chris Awre, University of Hull
- Richard Green, University of Hull
- Bess Sadler, University of Virginia
- Tim Sigmon, University of Virginia
- Ross Wayland, University of Virginia



Multi-Institutional

- 9 core team members
- 21 active contributors
- across 3 institutions
 - with executive-level recognition & support
- partnership with Fedora Commons
- close collaboration with MediaShelf
- complementary strengths & expertise



What's next

- Finish Y1
 - Build production Hydra apps at all three sites
 - Authentication (integration with campus LDAPs)
 - Authorization (with FeSL)
 - Workflow support (x3)
- Y2 & Y3
 - More content types
 - Build in more flexibility & reconfigurability
 - Phased public release



Contacts and links



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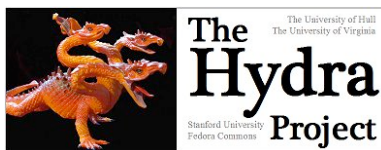
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<https://fedora-commons.org/confluence/display/hydra/>



Open Repositories 2009: Atlanta 18-21 May



The University of Hull
The University of Virginia

The Hydra Project

Stanford University
Fedora Commons

