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

Open Repositories 2009
18 – 21 May
Tom Cramer, Richard Green, Bess Sadler
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
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

Limit Search by...

Catalog | Music

brahms | All Fields

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

Sort by Relevancy

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ... | 177 | 178 | Next »

1. Join

Author: Brahm, Daniela
Format: Book
Publication Date: 2005
Call Number: N8888.B6475.A4 2005
Availability: check availability

2. Brahms

Format: Cassette, Musical Recording
Publication: 1985
Call Number: C 1550
Availability: check availability

3. Brahms

Author: Biret, Ildi
Multifunction

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

Plus
- Authentication
- Authorization
- Workflow
Multifunction

Deposit

Search & Browse

Manage

Deliver
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
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https://fedora-commons.org/confluence/display/ hydra/