

# Open Repositories

June 9, 2015

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CO Alliance of Research Libraries

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LYRASIS

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## Panel:

**Building a culture of  
distributed access  
in  
shared digital  
repository services**

# Distributed developer access in a shared Islandora repository system

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Panel Presentation 1 of 3:

**Building a culture of distributed access in shared digital repository services**

Open Repositories - June 9, 2015

# Open Repositories 2007



[Keynote](#) mentions that open source software is **free as in puppies**

**FEDORA** product name all-caps

GitHub **does not exist**  
([founded February, 2008](#))

# Alliance Digital Repository 2007

No mention of member developer access

## Founding agreements

- What are you uploading?
- How much are you uploading?
- Do you have the right to upload?

## Policies

- Trustworthy Repositories Audit & Certification: Criteria and Checklist ([TRAC](#))

### Trustworthy Repositories Audit & Certification: Criteria and Checklist



preservation repository CRL specifications certification  
criteria RLG Programs OCLC audit digital object management  
NARA trustworthy metadata preservation repository  
CRL specifications certification criteria RLG Programs  
OCLC audit digital object management NARA trustworthy  
metadata preservation repository CRL specifications  
certification criteria RLG Programs OCLC audit digital  
object management NARA trustworthy metadata preser-  
vation repository CRL specifications certification criteria  
RLG Programs OCLC audit digital object management NARA  
trustworthy metadata preservation repository CRL  
specifications certification criteria RLG Programs OCLC AU-  
dit digital object management NARA trustworthy meta-  
data

#### Contents:

Introduction  
Establishing Audit and Certification Criteria  
Towards an International Audit & Certification Process  
Using this Checklist for Audit & Certification  
Applicability of Criteria  
Relevant Standards, Best Practices & Controls  
Terminology  
Audit and Certification Criteria  
Organizational Infrastructure  
Digital Object Management  
Technologies, Technical Infrastructure & Security  
Audit Checklist  
Glossary  
Appendices

Version 1.0  
February 2007

# We provide Islandora hosting and support

7 member institutions

1 Drupal multisite installation

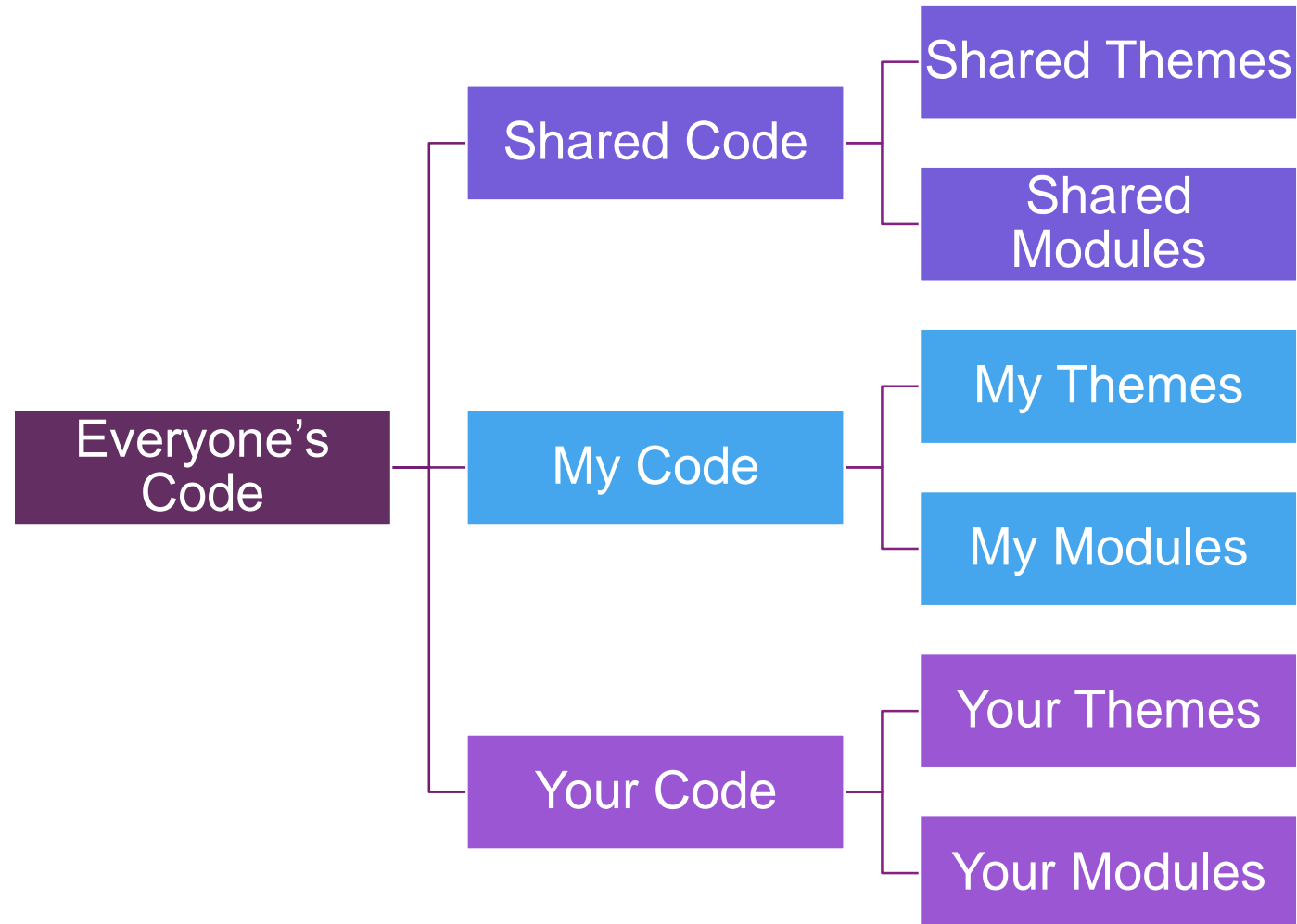
1 Fedora Commons repository

2 central staff

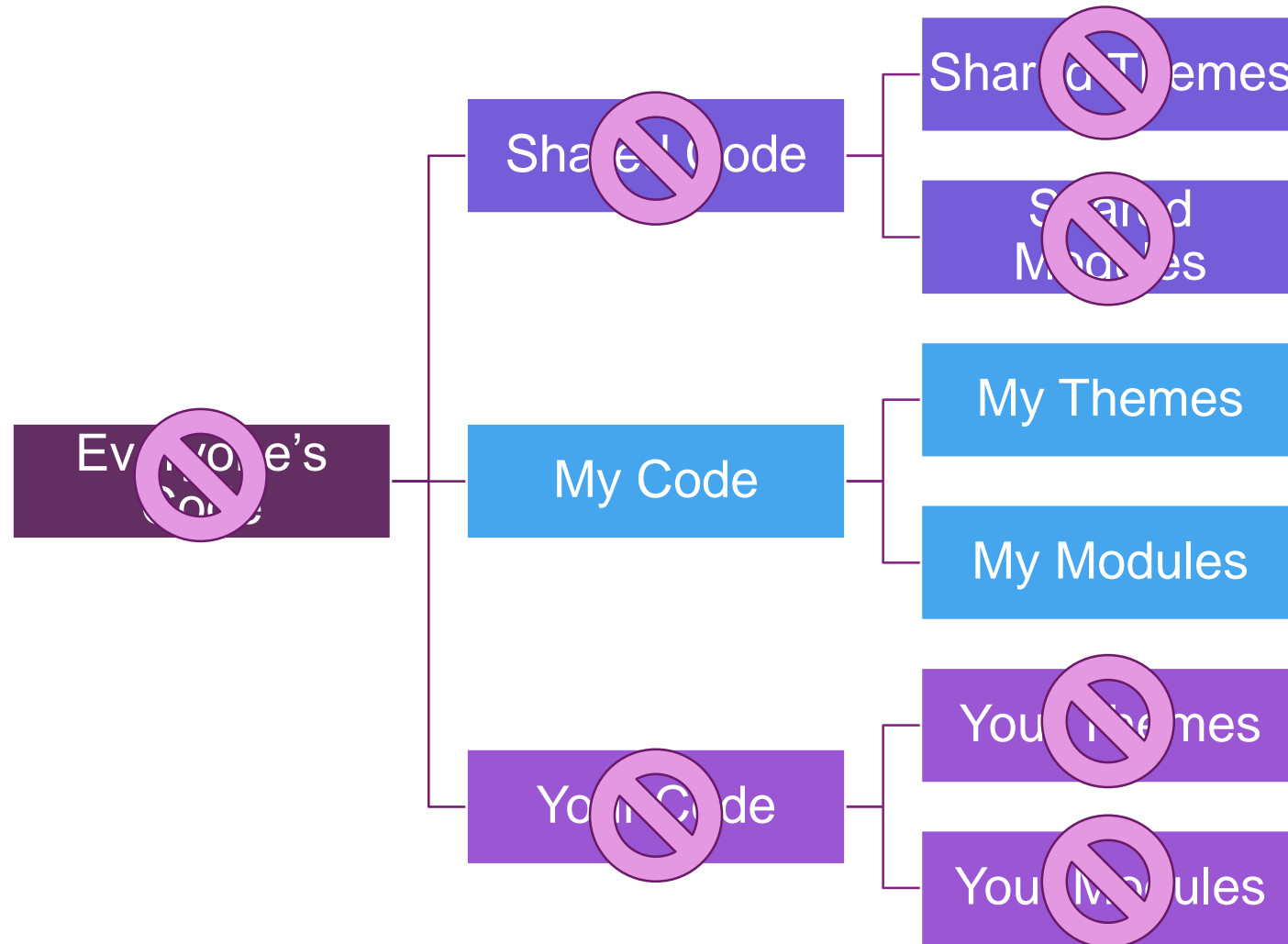
Shared hardware

(hosted by a member institution)

# Multisite Islandora 7: Central Staff Access



# Multisite Islandora 7: Member Access





What does  
“developer  
access”  
mean  
to our  
members?

Ingest large batches of files from the  
command line

Install code written by others

Make changes to their site’s code  
(appearance & functionality)

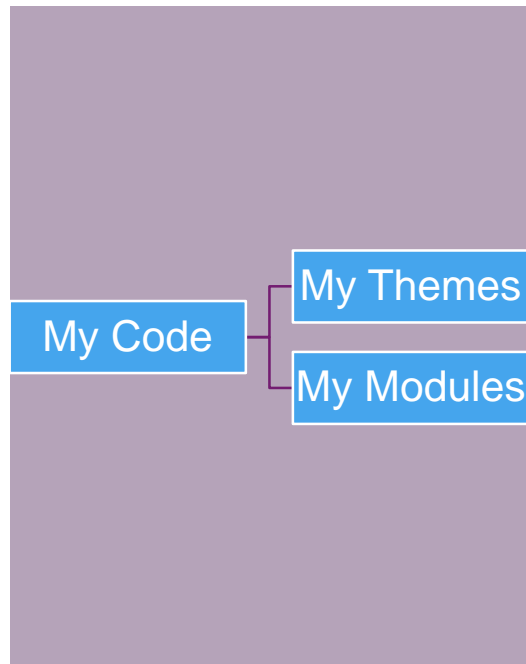
Write custom tools for ingest into  
Fedora



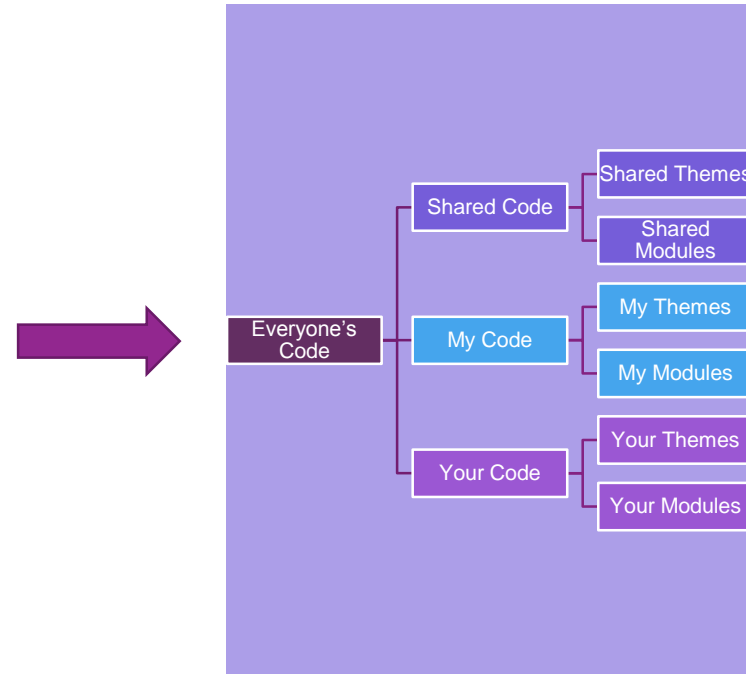
# Safeguards We Implemented

# Development Sites

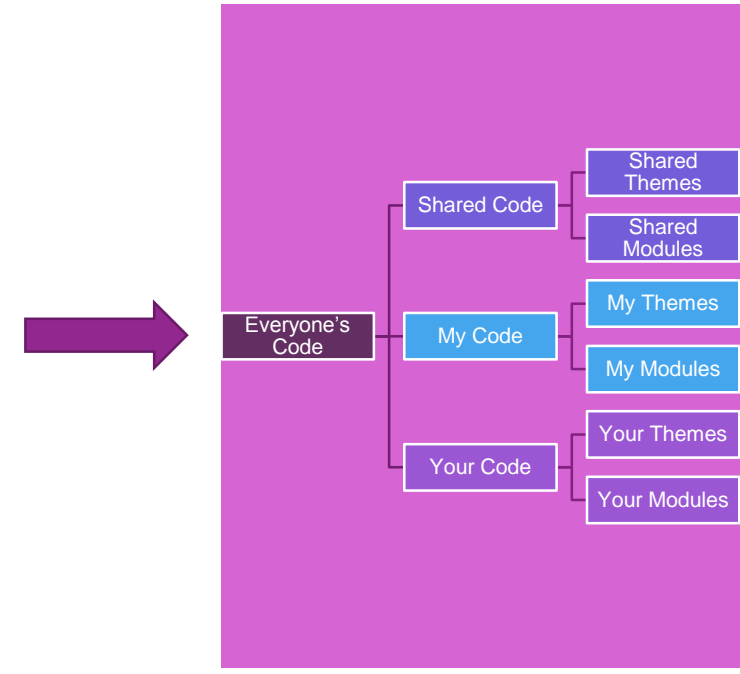
LOCAL



DEVELOPMENT



PRODUCTION



# GitHub: Access to change code

The screenshot displays the GitHub organization page for the "Colorado Alliance of Research Libraries". At the top, navigation links include "People 16", "Teams 8", "Audit log", and "Settings". Below the navigation bar is a search input labeled "Find a team..." and buttons for "My teams" and "+ New team". The main content area lists eight teams in a two-column grid:

- Owners**: 6 members · 24 repositories. Includes a "Leave" button and a row of six avatars.
- Contributors**: 4 members · 10 repositories. Includes a "Leave" button and a row of four avatars.
- COSPL**: 3 members · 2 repositories. Includes a "Leave" button and a row of three avatars.
- dacc**: 3 members · 1 repository. Includes a "Leave" button and a row of three avatars.
- DU**: 4 members · 1 repository. Includes a "Leave" button and a row of four avatars.
- Regis**: 1 member · 1 repository. Includes a "Leave" button and a row of one avatar.
- UWYO**: 2 members · 1 repository. Includes a "Leave" button and a row of two avatars.
- Viewers**: 5 members · 11 repositories. Includes a "Leave" button and a row of five avatars.

# Know Your Users



Member representatives approve access for developers

1 account = 1 person

System account creation includes being added to ticketing system, communication channels

[“fun with nametags,”](#) (2009), CC-BY 2.0 image by Flickr user Joel Kramer



# Know Your Logs!



Be able to quickly answer:

- Who is logged in to the system?
- What are they doing?
- How is it going?  
(Is anything breaking?)

Public domain image from [Forest Service, USDA](#). “Farrier, scaling.” Photo Number: 436786

# Ignorance is a bigger risk than malice



## Levels of Access (with warnings)

Let users know:

- What they have permission to do (but should not do)
- What is backed up and how often
- What impact their work could have on others

[“Visitors Are Warned Off Dunes as Part of Effort to Protect the Sandy Hook Beaches from Erosion 05/1973”](#), US National Archives on Flickr

# Communication is critical



- Documentation wiki
- Ticketing system
- Email list
- Biweekly meetings
- Something synchronous  
(Phone, Skype, Slack, IRC)

“[Roundabout Sign](#),” (2011), CC-BY 2.0 image  
by Flickr user The Tire Zoo



# Room to improve

GitHub: pull requests vs. write access

Monitoring and system status

Formalize developer access  
agreements

Provide more system training and  
example scripts

# Open the gates

1. Make a process for granting access
2. Help member staff understand
  - what level of access they need
  - what the risks are
3. Document who has access
4. Help member staff communicate
  - with central staff
  - with each other
5. Make sure central staff know
  - how access is being used
  - what impact it has on the system

# Want to know more?

[ADR Developer Wiki](#)  
[ADR on GitHub](#)  
[About the ADR](#)

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# Islandora Hosting Services at



Panel Presentation 2 of 3:

**Building a culture of distributed access in shared digital repository services**

Open Repositories - June 9, 2015

# What's at LYRASIS

- ▶ Currently operate an Islandora hosted repository service
  - ▶ Modest client base
- ▶ Clients choose our hosted service because
  - ▶ Don't want to deal with the various complexities
  - ▶ Don't have internal resources for hardware/infrastructure, software testing and development, and/or data migration
- ▶ Fedora Commons V3 - Repository layer
- ▶ Islandora application - Digital asset management
- ▶ Drupal - Content management and UI
- ▶ Also host ArchivesSpace and CollectionsSpace
  - ▶ For Archive collection descriptions and Museum asset management

# Client Set-Up

- ▶ Each Islandora client has their own custom install of Fedora
- ▶ Tried several different setup configurations
  - ▶ e.g., single Fedora repository
- ▶ Considered several factors in decision
  - ▶ Size configurability for each client
    - ▶ Widely varying
  - ▶ Reducing data storage costs
  - ▶ Limiting impacts of outages
  - ▶ Simpler data migration
  - ▶ Returning client data
- ▶ Able to customize without much additional staff time and other overhead

# Client Set-Up (cont'd)

- ▶ Detailed configuration setup
  - ▶ Several dimensions fixed - all clients have them in common
  - ▶ Other dimensions customized
- ▶ Settings are captured, applied in code
- ▶ Installed/Deployed as separate version
  - ▶ Use versioning via Drupal “Strongarm” and “Features” modules
  - ▶ Export the config’s into a text file and version \*that\* on Git
- ▶ Basic web pages themes are custom, too
- ▶ Our hosted service is mostly “base” Islandora Foundation modules
  - ▶ Without modifications
- ▶ Use a small number of 3<sup>rd</sup>-party and LYRASILS-developed modules



# Staff/User Access

- ▶ LYRASIS (Hosting service) Staff
  - ▶ Full access to central admin account
- ▶ Client Staff
  - ▶ Provide 3 general access levels
    - ▶ Repository Admin
    - ▶ “Basic” User
    - ▶ “Limited” (student) User
  - ▶ Have limited access to admin functions
  - ▶ Provide menu with links to approx. 10 Islandora functions
  - ▶ Not exposing Drupal settings (except for user access control)
  - ▶ Apply this same set-up for all

# Staff/User Access (cont'd)

- ▶ Overall decision - balance the need for client access with the need for broader system/admin controls
  - ▶ Islandora/Fedora too complicated to grant full admin access
  - ▶ Client could un-do setup inadvertently
- ▶ Original Fedora and Solr settings are setup as features
- ▶ Installed within client's "version"
- ▶ We've had very good luck with this arrangement (so far)
  - ▶ It would be hard for the client to damage their data
  - ▶ If needed, we can restore to previous day's incremental backup

# Agreements

- ▶ We have a formal, signed contract with each client
- ▶ Applies pricing and general terms and conditions
  - ▶ Client must follow “Acceptable Use” requirements for all activities associated with their user accounts
- ▶ Details of configurations and access controls are decided upon during on-boarding process
  - ▶ No detailed SLA for these components
- ▶ On-boarding includes
  - ▶ Instructor-led training
  - ▶ User manual and documentation
    - ▶ Download-able
    - ▶ Tailored for LYRASIS’ standard configurations
    - ▶ Expand on Islandora wiki

# LYRASIS Staff

## ▶ Before

- ▶ Had specialist for each hosted software service
  - ▶ Evergreen, ArchivesSpace, Islandora
- ▶ Goal: develop software enhancements
- ▶ Contribute back to open-source community

## ▶ Financial sustainability has brought about some changes

## ▶ Now

- ▶ Staff spend time on all three software services
- ▶ Becoming more “well rounded”
- ▶ Better able to compare/contrast all three

# Hosting Three Services

- ▶ Islandora, ArchivesSpace, and CollectionsSpace
- ▶ Each \*very\* different
- ▶ But we are always looking for commonalities
  - ▶ Server provisioning - Ansible
  - ▶ Deployments - Docker
    - ▶ We use multiple Dockers for pieces of the stack
    - ▶ For Islandora, however, we use it only for Djatoka
  - ▶ System monitoring - New Relic
- ▶ Training and On-boarding processes becoming similar, too

## **CONTACT**

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# Collaborative Development of Shared Repository Solution: Oregon Digital

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Panel Presentation 3 of 3:

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Open Repositories - June 9, 2015

Karen Estlund

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# Co-Hosting?

CONTENTdm

DSpace

OJS

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**Oregon State**  
UNIVERSITY | **Libraries and Press**



UNIVERSITY OF OREGON  
Libraries

# DAMS Review

**Simple Digital Library (SimpleDL)**  
Accomplish More with a Simple Digital Library

**greenstone digital  
library software**

 **slandora**

 **irplus**  
Institutional Repository Software

 **DIGITALCOMMONS®**  
Successful, Sustainable Institutional Repositories

 **Veridian**

 **CONTENTdm®**  
Digital Collection Management Software

 **Fedora™**

**CA** COLLECTIVE  
ACCESS

**RESCARTA®**  
FOUNDATION, INC.

 **Leprints**  
digital repository solutions  
services

 **hydra**

 **omeka**

**ExLibris** **DigiTool**

 **collection**space

 **UC3**  
UC Curation Center

  
**DSPACE**

**Oregon Digital Goes Hydra!**

**OREGON**

**DIGITAL**

**hydra**

A large, expressive red brushstroke graphic that starts behind the word 'DIGITAL', loops around the word 'hydra', and extends downwards and to the left, ending under the 'h'.

# Organizing for Development



# Agreement & MOU

- Governance
  - Technical / Systems (1 UO / 1 OSU)
  - Metadata / Curator / Repository Coordinator (1 UO / 1 OSU)
  - Organization Administrator (1 UO / 1 OSU)
- Shared Hydra Partner Responsibilities
- System Maintenance
- Funding
- Evaluation of Partnership



# Policies



# Collaborative Tools

The screenshot displays a Jira Kanban board for the project "OregonDigital/oregondigital\_2". The board is organized into four columns: Backlog (30 items), Sprint 6/17/15-6/30/15 (0 items), In Progress (3 items), and Done (13 items). Each item card includes a number, a title, a status label, and a comment icon.

**Backlog (30)**

- 35: Facet Configuration (Admin, 1 comment)
- 21: Subject facet only displays labels for URIs (Controlled Vocabularies, 11 comments)
- 24: Implement IIP Server (Implement Viewers, 1 comment)
- 86: OpenSeaDragon Viewer (2 comments)
- 38: Collection Landing Pages (Admin, 3 comments)
- 114: Embedded Viewer (1 comment)

**Sprint 6/17/15-6/30/15 (0)**

**In Progress (3)**

- 10: Get redirect from oregondigital pids to resolve to new URI (Initial Migration, 1 comment)
- 28: Implement non-zoomable image viewer (Implement Viewers, 0 comments)
- 112: (1 comment)

**Done (13)**

- 117: Extract Marmotta client to gem. (1 comment)
- 115: Allow an enhancement to return multiple properties. (1 comment)
- 116: Delete README.rdoc. (1 comment)
- 22: Fetch and cache labels for Subject URIs (Controlled Vocabularies, 1 comment)
- 107: Enrich Solr Document with Labels (1 comment)
- 83: Switch Button for Form Fields (1 comment)



# Roles and Processes



A list of markdown documents explaining dev practices that we're trying out or utilizing. — Edit

4 commits

2 branches

0 releases

2 contributors



branch: master

development-practices / +



Merge pull request #1 from OregonDigital/before\_filters



jechols authored on Mar 3

latest commit 3360b2f96b



rails

Clarity.

3 months ago



README.md

Added a standard about before filters

3 months ago

README.md

# Oregon Digital Development Practices

This repository is a collection of development practices we are either exploring or actively support.

## Contributing

Create a pull request with a markdown document including a practice you feel should be supported. When exploring it please move it to the "Exploring" column on [Waffle.io](#). If the pull request is accepted it should be moved to "Success." If rejected, then "Not Useful." Please update the table of contents in your PR.

Explorers please document why a certain practice was deemed useful or not.

&lt;&gt; Code

Issues 1

Pull requests 1

Wiki

Pulse

Graphs

Settings

SSH clone URL

git@github.com:Oreg



You can clone with [HTTPS](#), [SSH](#), or [Subversion](#).

Clone in Desktop

Download ZIP

# Digital Collection Practices



# What to GUI?

**OREGON  
DIGITAL** [Advanced Search](#)

[Log Out \[kestlund@uoreg\]](#)  
[Bookmarks - Saved Search](#)  
[History](#)  
[Roles - Review - Ingest - T](#)

**Geographics**

Location ▾ Oregon (United States >> Oregon) ☐

**Dates**

Date ▾ 2015-06-01 ☐

**Identifiers**

Identifier ▾ ph041\_900 ☐

**Rights**

Rights ▾ C| ☐

Rights Holder ▾ 

**CC0 1.0 Universal**  
<http://creativecommons.org/publicdomain/zero/1.0/>

☐

# Additional Skill Building

```
    "range": "http://www.w3.org/2000/01/rdf-schema#range",  
    "title": "http://purl.org/dc/terms/title"  
  },  
  "@graph": [  
    {  
      "@id": "http://opaquenamespace.org/ns/people",  
      "issued": {  
        "@type": "http://www.w3.org/2001/XMLSchema#date",  
        "@value": "2013-08-25"  
      },  
      "modified": {  
        "@type": "http://www.w3.org/2001/XMLSchema#date",  
        "@value": "2015-06-04"  
      },  
      "publisher": "Opaque Namespace",  
      "title": "People vocabulary"  
    },  
  ],  
}
```



# Training



# Documentation & Openness

 OregonDigital / oregondigital

 Watch 20

 Star 12

 Fork 3

## Creating a Collection

Jeremy Echols edited this page on Aug 25, 2014 · 8 revisions

## How to Create a New Collection in Oregon Digital

**This is a work in progress!**

Start with the console (`rails c`):

```
[1] pry(main)> col = GenericCollection.new(:pid => "oregondigital:braceros")
=> #<GenericCollection:0x3d2eae4>
[2] pry(main)> col.title = "Braceros in Oregon Photography"
=> "Braceros in Oregon Photography"
[3] pry(main)> col.save!
=> true
```

Now add an institutional affiliation to the collection. Currently, institutions are "Oregon\_State\_University" and "University\_of\_Oregon". These are DBpedia terms (see: OregonDigital::ControlledVocabularies::Organization).

```
[4] pry(main)> uo = OregonDigital::ControlledVocabularies::Organization.new("Univers
```

### ▼ Pages 14

[Home](#)

[Add Controlled Vocabularies & Properties](#)

[Add Fields to Display](#)

[Add Local Labels to Fields](#)

[Add New Linked Data Terms](#)

[Bulk Changes to Items in Sets](#)

[Creating a Collection](#)

[Edit Ingest Form Mappings](#)

[OAI Documentation](#)

[RDF Documentation](#)


[Requesting New Controlled Vocabulary Terms](#)

[Requesting New Predicates](#)

[Restricting Items](#)

[Roles and rights](#)

# Staff Turnover and Onboarding

Mon 5/18		Tue 5/19	
<p>9 – 5p Oregon Digital Hydra Camp</p>		<p>9 – 5p  Oregon Digital Hydra Camp</p>	





1908 Civil War Football. OAC vs. Oregon, November 21, 1908. (UAREF3). University of Oregon Athletics Image Collection. <http://oregondigital.org/sets/uo-athletics/oregondigital:df668t10b>

# Questions & Discussion

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