



cottage labs

Current state of open source RDMs

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Welcome

Cottage Labs is a partnership of software and data experts. We use open source technologies tailored to meet the exact needs of knowledge organisations to enable them to gather, manage and share data to meet the diverse demands of their users.

Presenting today:

Richard Jones - Data Modelling and Project Management

Steve Eardley - InvenioRDM Lead @ CL

With support from

Anusha Ranganathan - Samvera Hyrax Lead @ CL



Outline of the Workshop

We're going to look at 2 repository platforms commonly used for Research Data Management: InvenioRDM and Samvera Hyrax

We'll briefly look at their functions, and make some comparisons. They are similar in some ways and very different in others.

Then it's over to you! We'll give you the chance to play with both platforms, try out some activities, discuss amongst yourselves what you need from your RDM platform, and look at how these two meet them.



The screenshot shows the InvenioRDM interface for a demo instance. At the top left is the 'cottage labs INVENIORDM' logo. Navigation links for 'Communities' and 'My dashboard' are visible. A search bar is present in the top right. The main content area features a blue header with 'demo-1' and a search input. Below this, a light blue banner reads 'You've successfully installed InvenioRDM! What is ahead?'. Three blue boxes with white text and icons represent the next steps: 1. Configure (with a gear icon), 2. Customize (with a paintbrush icon), and 3. Use it! (with a play button icon). Each box contains a brief description of the step. At the bottom, there are two buttons: 'Docs' (with a document icon) and 'Code' (with a code icon).

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INVENIORDM

Communities My dashboard

demo-1

Search

You've successfully installed InvenioRDM!
What is ahead?

1

Configure

Configure the datamodel, resource types, permissions and much more to make it suit your needs! For more information on how to do it visit the configuration section in the docs .

2

Customize

Customize the layout and adapt the styling to match your institution's. See how to do so here .

3

Use it!

Use and explore your InvenioRDM instance. Use .

Docs Code

InvenioRDM

InvenioRDM

- Packaged version of utilities powering Zenodo; from CERN + numerous partners. Zenodo ported in 2023
- Python & Flask web application with Semantic UI & React

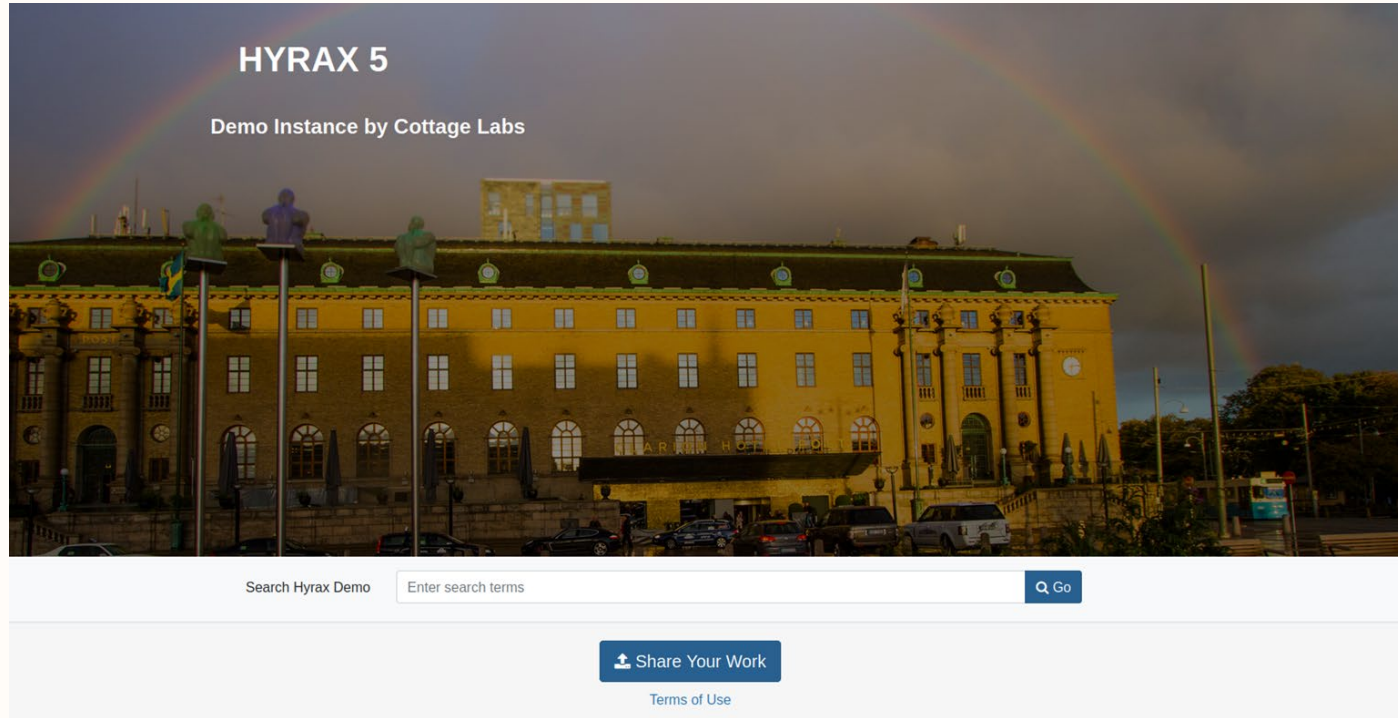
InvenioRDM USP

- Backed by CERN
- Developer-friendly tech stack
- Extensible metadata schema & controlled vocabularies
- Very scalable and performant
- The Invenio community

InvenioRDM Challenges

- A young platform; some features hotly anticipated
- Featureset heavily influenced by Zenodo's needs
- Something of a maze of interconnected packages can make development tricky

Hyrax



HYRAX 5

Demo Instance by Cottage Labs

Search Hyrax Demo [Go](#)

[Share Your Work](#)

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Hyrax

“Hyrax is a [Ruby on Rails Engine](#) built by the [Samvera community](#). Hyrax provides a foundation for creating many different digital repository applications.” ([doc](#))

Hyrax is not a web application.

Hyrax USP

- Develop any number of work types with
 - custom metadata model
 - custom workflow and administrative sets (admin sets - curated collections)
- Flexible adapters for metadata and storage with Valkyrie
- Custom workflows
- Integration with other services
- The Samvera community

Hyrax Challenges

- It's written in Ruby ;) and not a traditional RoR application
- It's got a long dependency chain of gems
- Need to strike a balance between feature richness and code complexity

Differences 1/3

	InvenioRDM	Hyrax
Setup effort	~1 day to deploy a basic repository	3 to 4 days to deploy a basic repository
Versioning	File level	File level
Language	Python	Ruby
Maturity	2015 - Invenio3	2010
Customizing metadata	Developer	Developer

Differences

2/3

	InvenioRDM	Hyrax
PIDs	DOI	DOI
Communities/ Collections	Administrative Communities, Collections for discovery	User and administrative collections
Configurable submission workflows	No	Yes - greater control
Usage statistics	(yes)	(yes)

Differences 3/3

	InvenioRDM	Hyrax
Lease	No	Yes
Embargo management	Automatic	Dashboard
Sharing, proxy deposit and ownership transfer	No	Yes
Meta tags for discoverability	Yes	Google scholar, Schema.org
Multilingual support	Yes	Yes

Factors for choosing

- The object versioning model, types of metadata model and workflows you need to represent
- The skill set available to support the repository
- Community involvement

Running Order

1. Introductions
2. Assemble into 5 groups (if you haven't already!)
3. Look at some guided activities in both platforms
4. Free form discussion and exploration
5. Feedback to the workshop (5 mins per group)

<https://tinyurl.com/cl-munin2025>



Running Order 1

- 1. Introductions (<20s each)**
 - a. Name
 - b. Role
 - c. Interest
 - d. Current Repository
2. Assemble into 5 groups (if you haven't already!)
3. Look at some guided activities in both platforms
4. Free form discussion and exploration
5. Feedback to the workshop (5 mins per group)

<https://tinyurl.com/cl-munin2025>



Running Order 2

1. Introductions
2. **Assemble into 5 groups (if you haven't already!)**
 - a. One of you may choose to plug your laptop into the screen
3. Look at some guided activities in both platforms
4. Free form discussion and exploration
5. Feedback to the workshop (5 mins per group)

<https://tinyurl.com/cl-munin2025>



Important Note!

The live demonstration gods have frowned upon us, we must have angered them in some way!

There are some caveats to the test servers you are about to interact with:

1. InvenioRDM instances are currently not allowing you to preview or download files already in the system. Files you upload yourself should show. If not to see how files are previewed and downloaded, you can visit <https://zenodo.org>
2. Hyrax instances are not running over a secure connection. DO NOT insert any private information or your own passwords into the system

<https://tinyurl.com/cl-munin2025>



Running Order 3

1. Introductions
2. Assemble into 5 groups (if you haven't already!)
3. **Look at some guided activities in both platforms**
 - a. Repository Instances: <https://tinyurl.com/cl-munin2025-repos>
 - b. Activities: <https://tinyurl.com/cl-munin2025-guide>
 - c. Try any/all of the activities in both platforms
 - d. Take some notes on your thoughts during the experience
4. Free form discussion and exploration
5. Feedback to the workshop (5 mins per group)



Running Order 4

1. Introductions
2. Assemble into 5 groups (if you haven't already!)
3. Look at some guided activities in both platforms
4. **Free form discussion and exploration**
 - a. What are your RDM requirements?
 - b. How does your current repository compare?
 - c. What is lacking in the platforms?
 - d. What do they do well?
 - e. Take some notes and prepare to share with the workshop
5. Feedback to the workshop (5 mins per group)



Running Order 5

1. Introductions
2. Assemble into 5 groups (if you haven't already!)
3. Look at some guided activities in both platforms
4. Free form discussion and exploration
5. **Feedback to the workshop (5 mins per group)**

