# Redesigning the FRDR Discovery Interface: Better, Stronger, Geospatial-er

Mark Goodwin - Metadata Coordinator, UBC Paul Dante - Software Developer, UBC Eugene Barsky - Research Data Management Librarian, UBC

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Alliance de recherche numérique du Canada



THE UNIVERSITY OF BRITISH COLUMBIA In this presentation:

- 1. Introduction to the Federated Research Data Repository (FRDR), and the FRDR Discovery Service
- 2. The FRDR Discovery Redesign Project

## What is FRDR?

- Federated Research Data Repository (FRDR) / Dépôt fédéré de données de recherche (DFDR)
- Scalable federated platform for digital research data management and discovery
- A service provided by the Digital Research Alliance of Canada (The Alliance)
- Three components:
  - **Discovery:** National discovery layer indexing Canadian research data repositories
  - **Deposit:** Data repository with dedicated curation support
  - **Preservation:** Archivematica integration and preservation pipeline

#### The FRDR Discovery Service





#### Find Data

Search FRDR to find research datasets originating from researchers affiliated with Canadian institutions. Data deposited to other repositories across Canada can also be found by searching in FRDR. View the growing list of collaborating repositories.

Learn more »

#### Deposit Data

Any researcher affiliated with a Canadian institution can deposit data into FRDR. The platform can efficiently ingest datasets of any size, and preservation processing is done automatically. Data professionals from the Portage Network and institutions across Canada work with researchers to curate and approve deposited items.

Learn more »

#### https://www.frdr-dfdr.ca/

## Text-based discovery

- **Keyword** search, with support for English and French language analysis
- **Filters** for date range, author, and source repository





## Map-based discovery

FRDR map search:

- An adaptation of the open-source CANARIE-funded <u>Geodisy</u> project
- Uses the open-source software GeoBlacklight
- Search results are driven by an interactive map
- Directly tied to FRDR's research data indexing
- Contains datasets that are geospatial in nature or simply associated with a location
- Available in English and French

#### FRDR Map Search: search results page

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#### FRDR Map Search: record page - geospatial preview



#### Metadata harvesting



Different for each repository type

(OAI-PMH, Dataverse, CKAN, OpenDataSoft, Socrata, etc.)

Steps:

- 1. Query the repository API to get list of records
- 2. For each record:
  - a. query to get full metadata from repository
  - b. "crosswalk"—or map— as many metadata fields as we can to the FRDR schema
  - c. write the crosswalked metadata to database
- 3. Periodically refresh each record

#### We can rebuild it

## We have the technology

## We can make it better than it was

Better, stronger, faster geospatial-er

The Discovery Redesign Project will result in a standalone discovery platform that integrates map-based searching with the existing FRDR discovery platform and enhances overall search capabilities







# Discovery Redesign Project: Goals

- Integrate the existing FRDR Discovery Service platform with FRDR Map Search, ensuring a seamless experience that combines text- and map-based searching for users
- Expand the capabilities of FRDR's search, through mechanisms including filters and advanced search
- Build a foundation upon which FRDR can better leverage persistent identifiers and controlled vocabularies, including ORCID, ROR, and FAST
- Respond to diverse community needs for discovery of Canadian research data

The project is supported by a core project team and the Discovery Redesign Working Group, ensuring the project is community-driven and incorporates usability best practices.

# **Unaris** will (re-)use a variety of open-source software components

FRDR Harvester: Repository metadata harvester

Globus Search: Text and geospatial search and filtering

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Geodisy: Metadata and data retrieval and processing (created with CANARIE funding)

**GDAL:** Geospatial file processing

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GeoServer: Server for publishing and distributing geospatial data

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GeoBlacklight: Discovery layer

#### Planned enhancement: Search by place name





Planned enhancement: Clustering to preview dataset locations



## Additional planned enhancements

- Ability to preview multiple geospatial files on a single dataset record page
- Links to related publications in other repositories
- Metadata export (eg. ISO 19139, DDI, DC)
- Stay tuned for more!

## Discovery Redesign Project - next steps

- Continued development of alpha prototype
- User testing with alpha prototype
- Continued working group engagement
- Promotion
- Release of beta version: early 2023

# Contributors

#### **Geodisy Team**

Eugene Barsky Paul Dante Mark Goodwin

#### **Discovery Redesign Project Team**

Paul Dante Mark Goodwin Adam McKenzie Neha Milan Todd Trann Lee Wilson

#### **Discovery Redesign Project Working** Group Paul Dante Krista Godfrey Mark Goodwin (Chair) David Kemper Amber Leahey Winnie I i Kathleen Matthews Neha Milan Nicholas Rochlin Kristi Thompson Lee Wilson

#### **Thanks! Questions?**

Paul Dante, Software Developer, UBC paul.dante@ubc.ca

Mark Goodwin, Metadata Coordinator, UBC <u>mark.goodwin@ubc.ca</u>



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