

Geodisy: Geospatial Discovery for Canadian Research Data

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GEODISY: GEOSPATIAL DISCOVERY

WE AIM FOR CANADIAN RESEARCH DATA TO BE SEARCHED, FILTERED, AND BROWSED USING GEOGRAPHIC LOCATIONS AS WELL AS WITH TEXT.



- Search results are driven by an interactive map
- Location is the primary search facet, linking resources from a similar area
- Relies less on textual searching, which is not ideal for spatial data

FRDR



DFDR

FEDERATED RESEARCH DATA REPOSITORY

DÉPÔT FÉDÉRÉ DE DONNÉES DE RECHERCHE

Find and Share **Canadian** Research Data

Search



Deposit Data

[Advanced search](#)

Find Data

Search FRDR to find research datasets originating from researchers affiliated with Canadian institutions. Data

Deposit Data

Any researcher affiliated with a Canadian institution can deposit data into FRDR. The platform can efficiently ingest datasets of

GEODISY: GEOSPATIAL DISCOVERY

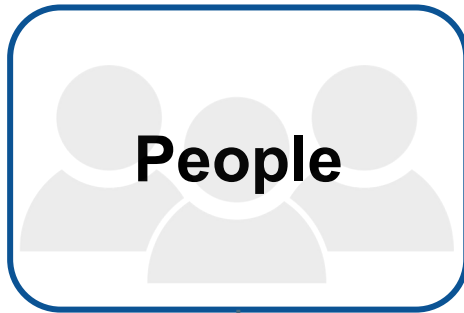
Why use it?

- Data can be difficult to find! When searching for data about a particular place, keywords can be hit or miss. Geodisy will show you where, in addition to what.
- Geodisy will benefit any research area that has use for location-based discovery, including climate change, community development, public health, conservation, and many more.



GEODISY: GEOSPATIAL DISCOVERY

Who will use it?



Researchers,
students, journalists,
etc



Canada's Federated
Research Data
Repository (FRDR)

Any entity with the
available
infrastructure

GEODISY: GEOSPATIAL DISCOVERY



Geospatial discovery is possible using location descriptions and metadata

- Geospatial data = machine readable using a GIS
- Non-geospatial data = discovery comes from descriptive metadata*
- Bounding boxes = rectangles representing the spatial extent of a data set

*to generate bounding boxes from non-geospatial data we are using geonames.org

GEODISY: GEOSPATIAL DISCOVERY

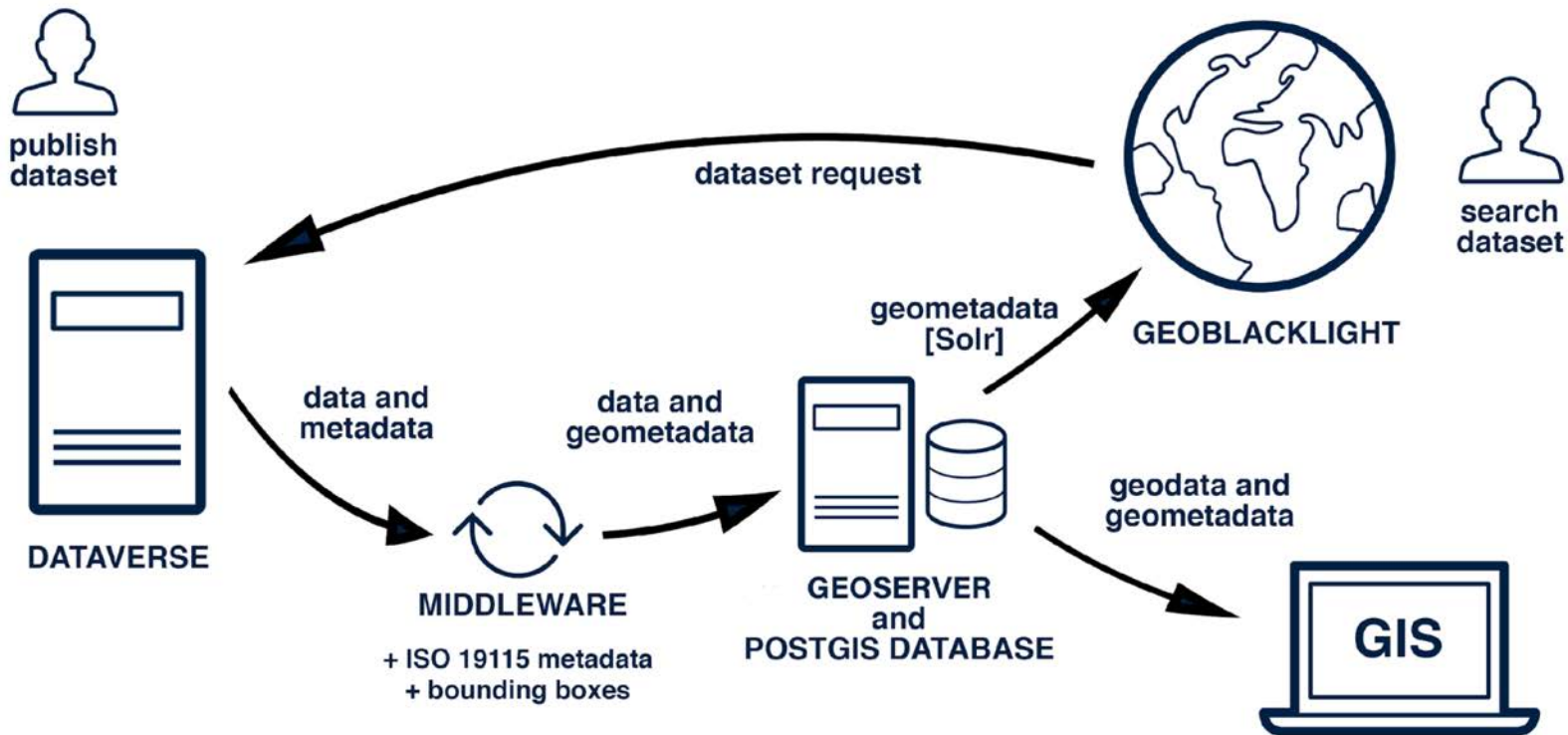
Geodisy (re-)uses 3 open-source software components



- **Dataverse:** Research data repository
+
- **GeoServer:** Server for publishing and distributing geospatial data
+
- **GeoBlacklight:** Geospatial discovery layer

*Geodisy source code and documentation is available in github - <https://github.com/ubc-library/geodisy>.

GEODISY: GEOSPATIAL DISCOVERY



GEODISY: GEOSPATIAL DISCOVERY

Project pipeline (in steps):

1. Software will query datasets from the Scholars Portal Dataverses (and later from UAlberta, Dal, UNB, UManitoba, etc.) to determine which have geospatial information
2. Software will harvest metadata from relevant non-geospatial datasets
3. Software will harvest metadata and data files from geospatial datasets
4. Software will transform metadata to more universal standard (**ISO 19115**) and add bounding boxes if needed
5. Software will deposit geospatial data and “geo” metadata into **Geoserver**
6. Metadata will be harvested by **GeoBlacklight** for discovery
7. GeoBlacklight will be customized to the needs of **FRDR** (Federated Research Data Repository), providing a unified map-based search interface for research data in Canada



GEODISY: GEOSPATIAL DISCOVERY

Reminder:

- For the initial step, for March 2020, Geodisy is funded to work with Canadian Dataverses only...



Scholars Portal Dataverse For testing Dataverse, go to the demo site. // Pour tester Dataverse, allez sur notre site de démonstration.

Metrics 122,911 Downloads Contact Share

Ryerson University Ryerson University Dataverse

TRENT UNIVERSITY Trent University Dataverse

University of British Columbia

UNIVERSITY OF GUELPH University of Guelph Dataverse

Search this dataverse... Find Advanced Search

1 to 10 of 1,913 Results

Dataverses (324)

Datasets (1,589)

Files (25,021)

Dataverse de l'Université du Québec à Trois-Rivières (Université du Québec à Trois-Rivières) Apr 15, 2019

University of Manitoba

Metrics 2,574 Downloads

Search this dataverse... Find Advanced Search

1 to 10 of 57 Results

Dataverses (17)

Datasets (40)

Dataverse

UAL Dataverse (Digital Initiatives, University of Alberta Libraries) data.management@ualberta.ca

Metrics 27,671 Downloads Contact Share

Welcome to the University of Alberta Libraries' Dataverse network. This service is provided to help researchers publish, analyze, distribute, and preserve their data and datasets.

Search this dataverse... Find Advanced Search

1 to 10 of 480 Results

Dataverses (80)

Datasets (380)

Files (3,965)

Replication data for: Species-specific size vulnerabilities in a competitive arena. Nutrient heterogeneity and soil fertility alter plant competitive size-asymmetries

DALHOUSIE UNIVERSITY 1818 2018

User Guide Support Sign Up Log In

Dalhousie University Dataverse (Dalhousie University) Test out dataverse using our demo site!

Metrics 194 Downloads Contact Share

Share, publish and get credit for your data. Find and cite research data from across all research fields.

Search this dataverse... Find Advanced Search

1 to 10 of 29 Results

Dataverses (7)

Datasets (22)

2016 Census of Population: ADA and DA, Main for Annapolis County, Nova Scotia

















GEODISY: GEOSPATIAL DISCOVERY (EXPECTED UI – example from NYU)

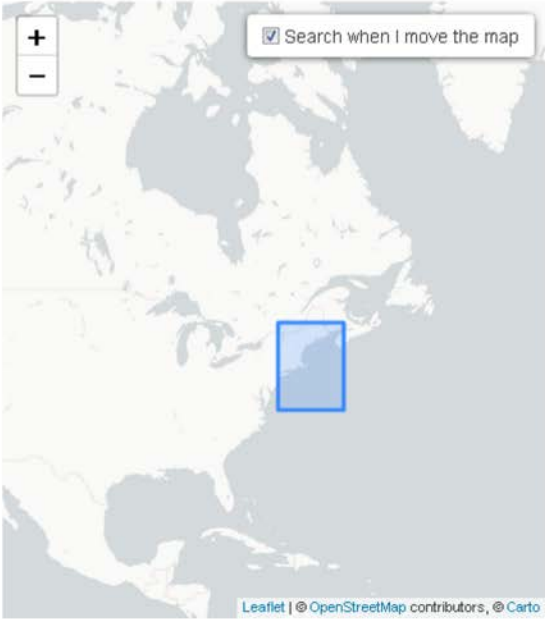
Limit your search

- Institution >
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- Subject >
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- Collection >
- Year >
- Access >
- Data type >
- Format >

You searched for:

« Previous | 1 - 10 of 24,439 | Next »

- ▶ 1. [1 Degree Graticule, Northeast United States, 2...](#)  
2010. United States. National Oceanic and Atmospheric Administration, United States. Department of Commerce, United States. National Ocean Service, and Coastal Services Center (U.S.). This line shapefile displays graticules (grid lines of latitude parallels and longitude meridians) for the Northeastern United States at 1 degree l... Coastal Services Center (U.S.).
- ▶ 2. [10 Degree Graticule, Northeast United States, ...](#)  
- ▶ 3. [100-Meter Resolution Color Shaded Relief of ...](#)  
- ▶ 4. [100-Meter Resolution Color-Sliced Elevation o...](#)  
- ▶ 5. [100-Meter Resolution Elevation of Puerto Rico...](#)  
- ▶ 6. [100-Meter Resolution Grayscale Shaded Relie...](#)  
- ▶ 7. [100-Meter Resolution Impervious Surface of P...](#)  
- ▶ 8. [100-Meter Resolution Land Cover of Puerto Ri...](#)  



Leaflet | © OpenStreetMap contributors, © Carto



GEODISY: GEOSPATIAL DISCOVERY (EXPECTED UI – NYU)

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[Back to Search](#) [Start Over](#)

2010 Buildings

Publisher: New York (City). Department of City Planning

Place(s): New York City, New York, United States

Subject(s): Buildings and Urban density

Format(s): Shapefile

Year(s): 2010

Held by: NYU

Preservation record: <http://hdl.handle.net/2451/34043>



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[Download](#)



GEODISY: GEOSPATIAL DISCOVERY

CORE PROJECT TEAM (UBC)

- Eugene Barsky – Principal Investigator
- Paul Dante – Software Developer
- Edith Domingue – ARC Client Services Manager
- Mark Goodwin – Geospatial Metadata Coordinator
- Tang Lee – Project Manager
- Paul Lesack – Co-Principal Investigator
- Evan Thornberry – Co-Principal Investigator

PROJECT PARTNERS

- Jason Brodeur – McMaster University
- Marcel Fortin – University of Toronto
- Alex Garnett – SFU
- Amber Leahey – Scholars Portal
- Jason Hlady – University of Saskatchewan
- Venkat Mahadevan – UBC ARC
- Todd Trann – University of Saskatchewan
- Lee Wilson – Portage Network



Launching in spring 2020

GEODISY: GEOSPATIAL DISCOVERY

Keep up to date:



#Geodisy on social media

researchdata.library.ubc.ca/find/geodisy

github.com/ubc-library/geodisy

Email: geodisy.info@ubc.ca

Twitter: [@MarkJWGoodwin](https://twitter.com/MarkJWGoodwin), [@thornberry_evan](https://twitter.com/thornberry_evan)

Thank you!