

# PIDs at the University of British Columbia



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  - <https://researchdata.library.ubc.ca>

# To Discuss

- Background about UBC/UBC Library
- UBC Library use of:
  - DOIs
  - ORCIDs
  - RORs
  - Other PIDs
- National PIDs Strategy in UBC Context



# About UBC



- 70,000 students
- 17,000 faculty and staff
- \$669 million in research funding
- Annual budget of more than \$2 billion



# About UBC Library

- One of the largest academic libraries in Canada
- More than 300 employees
- More than 80 librarians



# UBC Open Collections Discovery

- Open Collections brings together locally created and managed content from UBC open access repositories:
  - Dataverse
  - DSpace
  - AtoM
  - ContentDM
- Released in 2016

## Open Collections

Explore 275,682 unique digital objects.



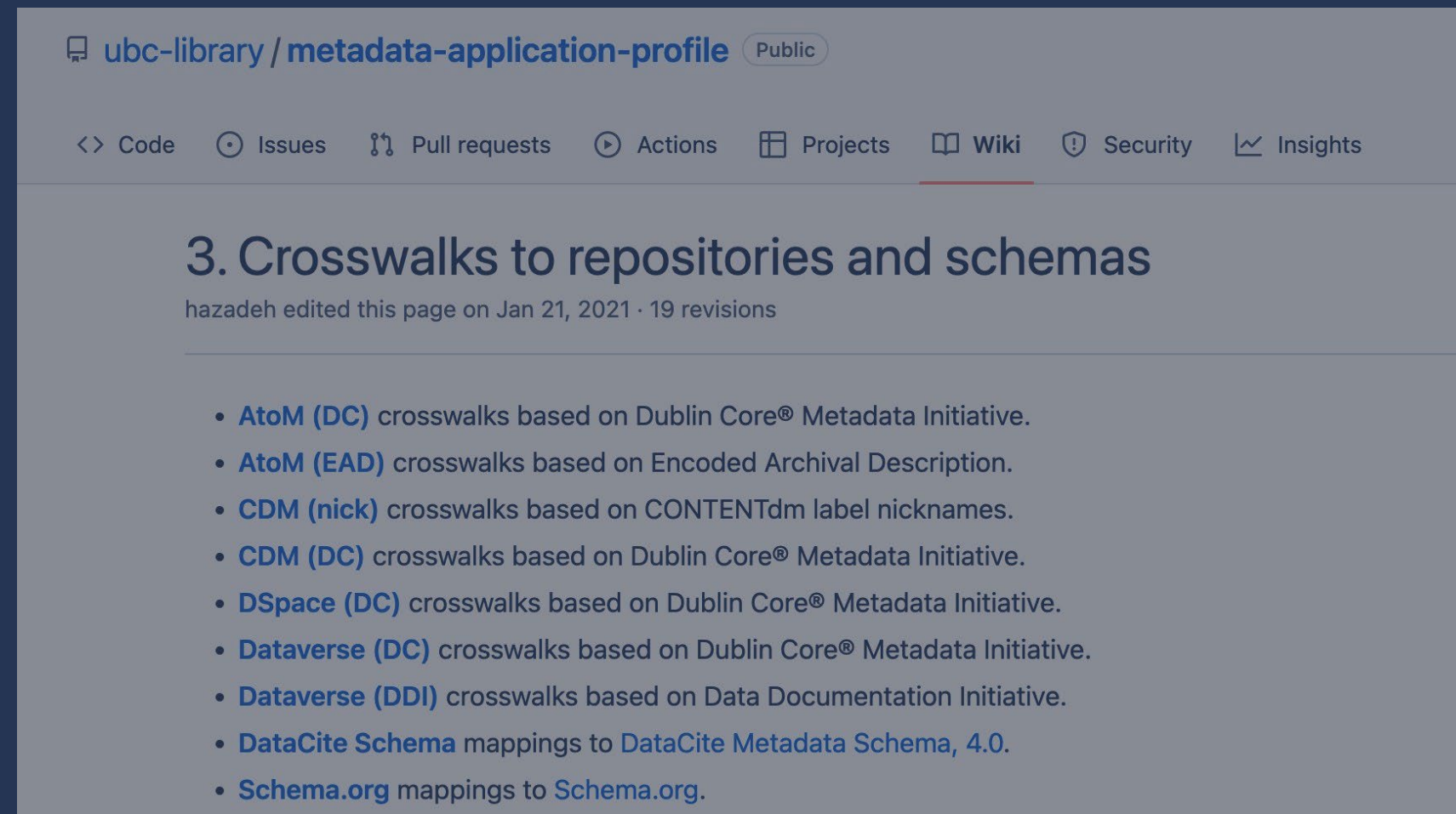
Advanced Search

Browse by Collection

About this image

# Discovery interface approach

- Metadata from source repositories is crosswalked to Open Collections schema
- Open Collections is crosswalked to DataCite and Schema.org for enhanced discovery
- DOIs are minted in the discovery layer - Open Collections



The screenshot shows a GitHub Wiki page for the repository 'ubc-library / metadata-application-profile'. The page title is '3. Crosswalks to repositories and schemas', and it was last edited by 'hazadeh' on Jan 21, 2021. The page contains a list of crosswalks:

- **AtoM (DC)** crosswalks based on Dublin Core® Metadata Initiative.
- **AtoM (EAD)** crosswalks based on Encoded Archival Description.
- **CDM (nick)** crosswalks based on CONTENTdm label nicknames.
- **CDM (DC)** crosswalks based on Dublin Core® Metadata Initiative.
- **DSpace (DC)** crosswalks based on Dublin Core® Metadata Initiative.
- **Dataverse (DC)** crosswalks based on Dublin Core® Metadata Initiative.
- **Dataverse (DDI)** crosswalks based on Data Documentation Initiative.
- **DataCite Schema** mappings to [DataCite Metadata Schema, 4.0](#).
- **Schema.org** mappings to [Schema.org](#).

# DOIs Scope and Scale

- Almost 300,000 DOIs minted and maintained
- Almost 15,000 DOIs in 2023 already
- Weekly maintenance for broken PIDs

DataCite Fabrica Support UBC.OC

Open Collections

Info Settings Prefixes **DOIs**

Create (Form)  
Create (File Upload)

Type to search... Search  
[Reset All](#)

296,529 DOIs Sort by Date Updated

**Supporting information for: The correct name for an Aquilegia (Ranunculaceae) hybrid of the parentage *Aquilegia flavescens* × *A. formosa*** Dataset  
Quentin Cronk  
Version 1 of Dataset published 2023 via The University of British Columbia  
[Abstract](#)

State	
<input type="checkbox"/> Findable	290,656
<input type="checkbox"/> Registered	5,814
<input type="checkbox"/> Draft	59

Resource Type

# API Calls

- APIs for data re-use
- Community integrations are welcome

Enter query terms and select metadata fields to return to generate an example query:

cats

The following API endpoint will return search results based on your selections:

```
https://oc-index.library.ubc.ca/search/8.5?q=cats&from=0&size=10&sort=_score,desc&index=oc&source=subject,description,creator,title
```

The API responds with JSON data you can use in your research or application:

```
{
  "results": [
    {
      "_index": "cdm.arphotos-2022-11-11",
      "_id": "1.0160316",
      "_score": 875.1858,
      "_source": {
        "creator": [
          "Kull, Bob"
        ],

```



# Landing page and Stats

- Each landing page has metadata (required for Google Scholar for harvesting)
- Downloadable in multiple formats
- Metadata available in multiple formats (various json, various rdf)

The screenshot shows the landing page for a collection titled "Dickens and De Morgan" by Harvey, Isobel. The page is part of the "Open Collections" section of the UBC Theses and Dissertations website. It features a "Featured Collection" banner and a detailed metadata table. On the right side, there are options to download the PDF (8.79MB) or embed it, along with a permanent URL (DOI) and buttons for generating a citation and downloading metadata.

Open Collections

Return to Search Next Resu

UBC Theses and Dissertations

Featured Collection

## Dickens and De Morgan

Harvey, Isobel

Abstract

[No abstract available]

Item Metadata

<b>Title</b>	Dickens and De Morgan
<b>Creator</b>	Harvey, Isobel
<b>Publisher</b>	University of British Columbia
<b>Date Issued</b>	1919
<b>Description</b>	[No abstract available]
<b>Extent</b>	9217312 bytes
<b>Genre</b>	Thesis/Dissertation

ubc.ca

ubc\_1919\_a8\_h2\_d5.pdf 8.79MB

Download PDF

Embed PDF

**Permanent URL (DOI):**

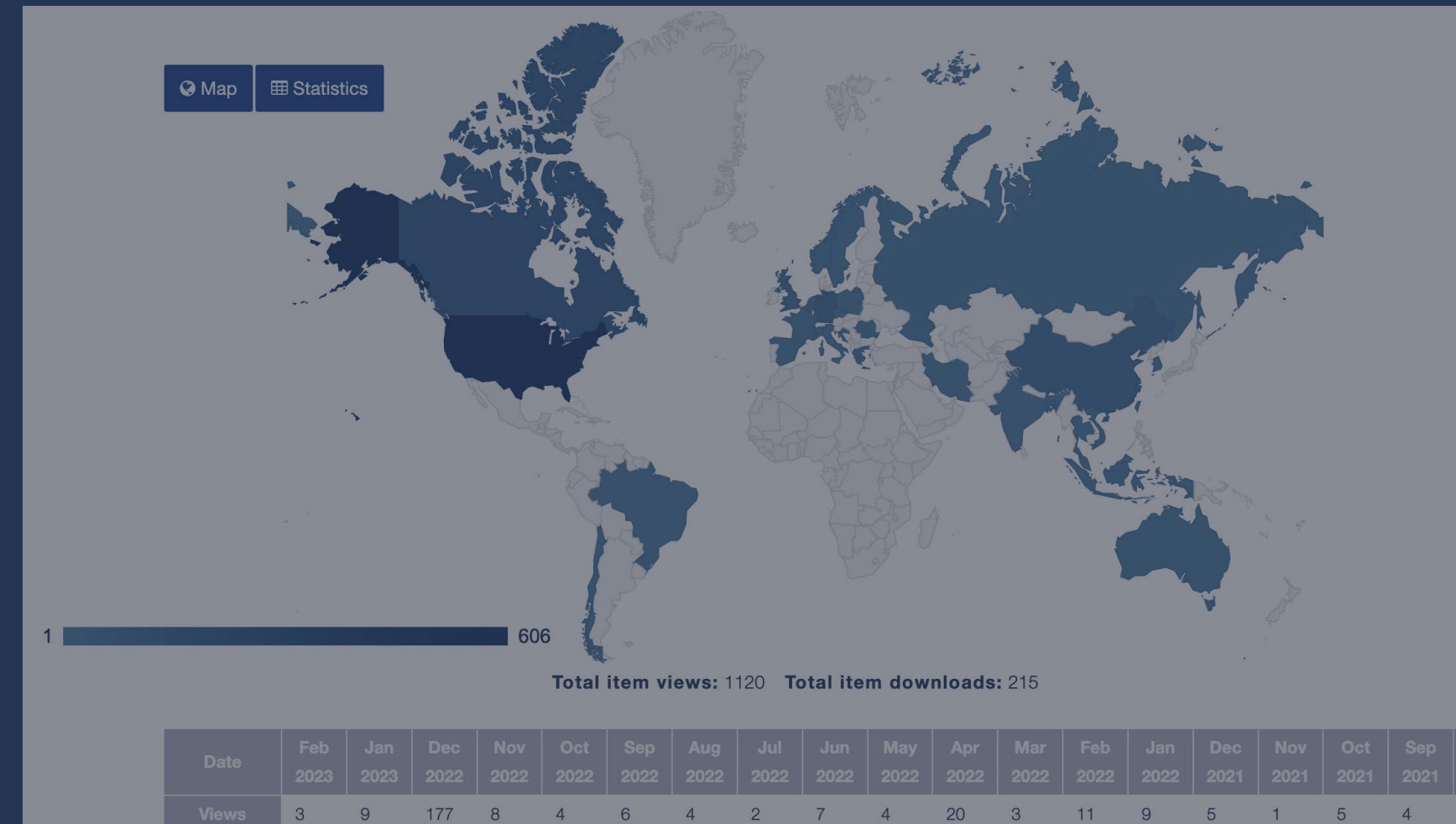
<https://dx.doi.org/10.14288/1.0088712>

Generate Citation

Download Metadata

# Landing page and Stats

- Each landing page has stats and locations enabled





## DOIs campus services

- Most campus partners do not have persistent IDs solutions
- Library is cautious to commit to solving these problems, as URLs change



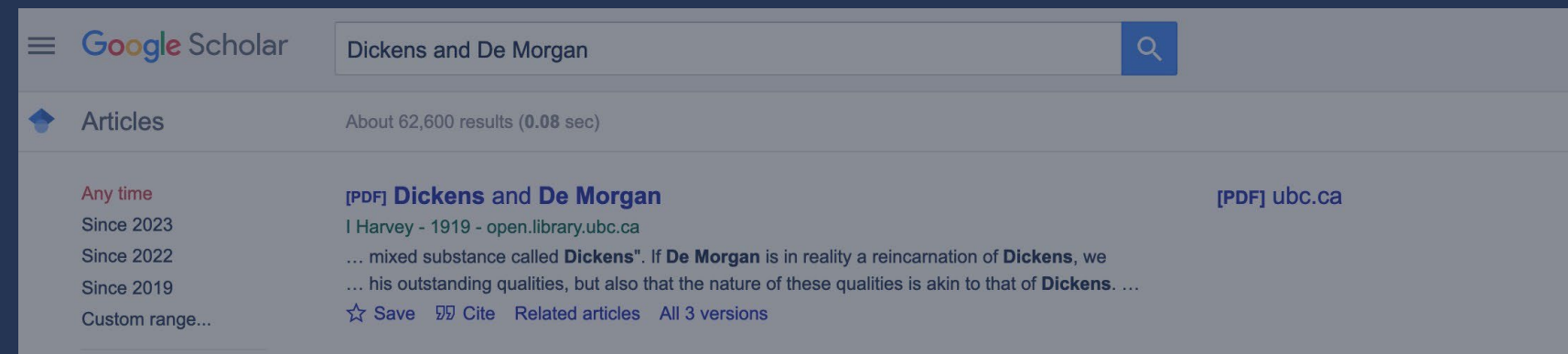
# DOIs campus services

- In some disciplines, like life sciences, DOIs are just too slow
  - There are >1 billion of objects on Global Biodiversity Information Facility (GBIF). A reasonable query might be which of 1 billion objects were collected in Indonesia.



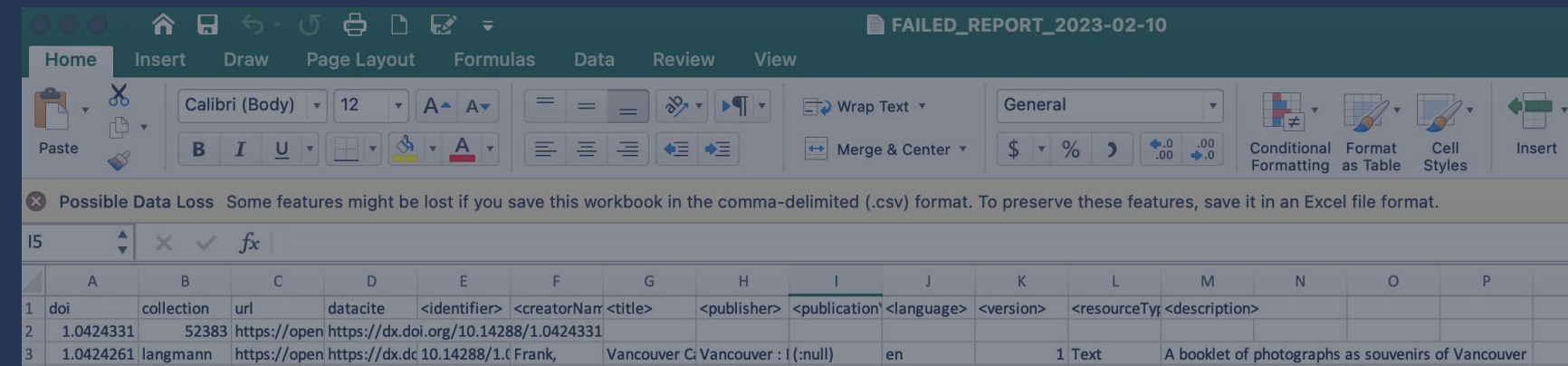
# Advantages for minting DOIs

- Persistent URLs and citations
- Enhanced discovery with DataCite, Schema.org (ORCID, Summon, Primo, etc)
- Use of Datacite APIs and GraphQL



# Challenges for minting DOIs

- Some costs for DataCite membership
- Cannot delete DOIs after minting (can edit)
- Weekly maintenance as needed
- Faculty requesting DOIs as one-offs



FAILED\_REPORT\_2023-02-10

Home Insert Draw Page Layout Formulas Data Review View

Possible Data Loss Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save it in an Excel file format.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	doi	collection	url	datacite	<identifier>	<creatorName>	<title>	<publisher>	<publication>	<language>	<version>	<resourceType>	<description>			
2	1.0424331	52383	https://open	https://dx.doi.org/10.14288/1.0424331												
3	1.0424261	langmann	https://open	https://dx.doi.org/10.14288/1.0424261	Frank,	Vancouver C	Vancouver I	(null)	en		1	Text	A booklet of photographs as souvenirs of Vancouver			



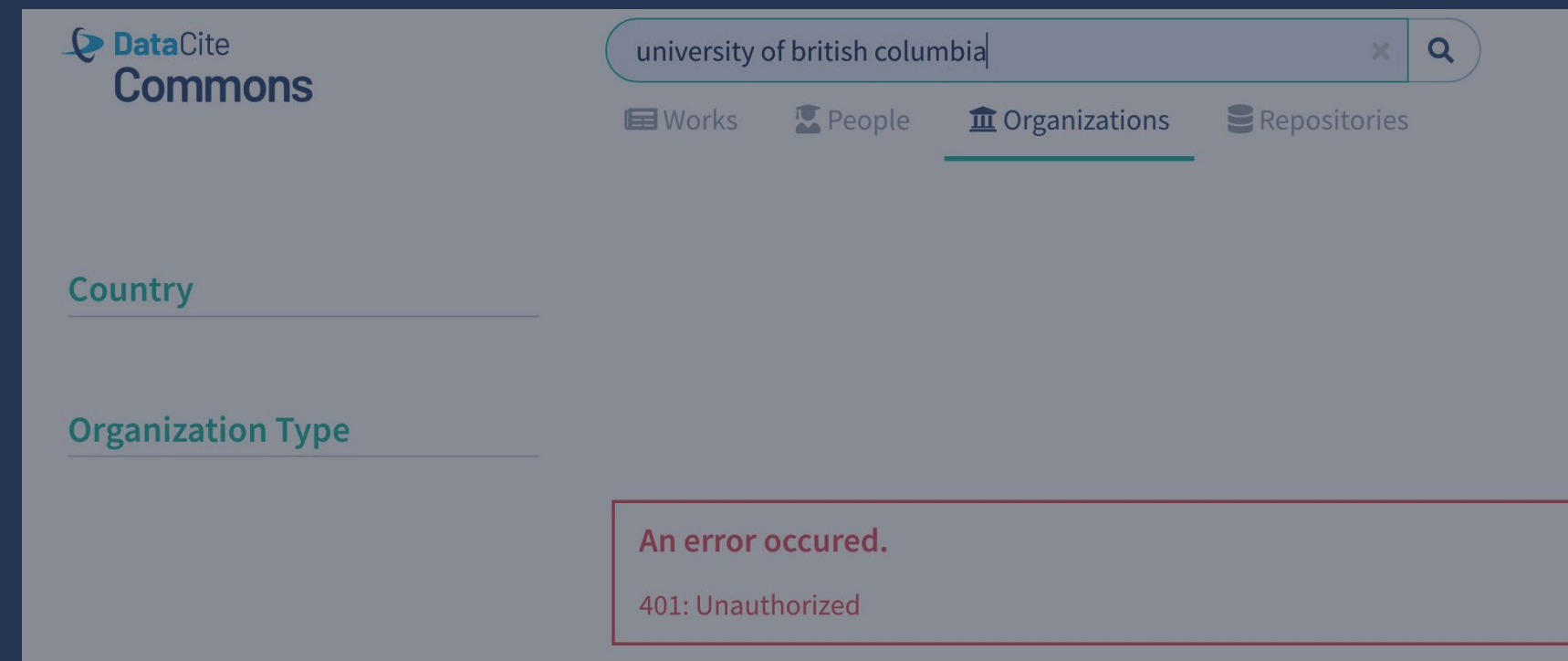
# RORs at UBC

- Research Organization Registry (ROR) is a global, community-led registry of open persistent identifiers for research organizations.
- RORs are open and non-proprietary
- Play well with ORCID and DOIs



# Embedding RORs in DataCite metadata

- Work in progress
- Include RORs in all UBC minted DOIs



# Embedding RORs in Datacite metadata

- Allow the scholarly community to gain insight into research outputs at the institutional level by exposing affiliation information in DOI metadata submitted to Crossref or DataCite.

**University of British Columbia** <https://ror.org/03rmrcq20>

<b>305,022</b> Works	<b>3,979</b> Citations <a href="#">?</a>	<b>174,535</b> Views <a href="#">?</a>	<b>33,822</b> Downloads <a href="#">?</a>
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Founded 1908

**Links**  
[Homepage](#)  
[Wikipedia](#)  
[Twitter](#)

**Other Identifiers**  
GRID [grid.17091.3e](#)  
Crossref Funder ID [10.13039/501100005247](#)  
Crossref Funder ID [10.13039/501100005246](#)  
Crossref Funder ID [10.13039/501100000187](#)  
Crossref Funder ID [10.13039/501100005277](#)  
Crossref Funder ID [10.13039/501100005245](#)  
ISNI [0000000122889830](#)  
Wikidata [Q391028](#)  
Wikidata [Q3551709](#)



# Embedding RORs in DataCite metadata

- Code element 7 (Contributor) in DataCite Schema 4.4 (and all sub elements for 7) for all DOIs submitted to DataCite for UBC Library (retrospectively and prospectively), using 7, 7.a, 7.1, 7.1.a, 7.4, 7.4.a, 7.4.b.

ID	DataCite-Property	Occ	Definition	Requested metadata entry
7	Contributor	0-n	The institution or person responsible for collecting, managing, distributing, or otherwise contributing to the development of the resource. To supply multiple contributors, repeat this property. For software, if there is an alternate entity that "holds, archives, publishes, prints, distributes, releases, issues, or produces" the code, use the contributorType "hostingInstitution" for the code repository.	University of British Columbia
7.a	contributorType	1	The type of contributor of the resource	HostingInstitution
7.1	contributorName	1	The full name of the contributor	University of British Columbia
7.4	nameIdentifier	0-n	Uniquely identifies an individual or legal entity, according to various schemes	03rmrcq20
7.4.a	nameIdentifierScheme	1	The name of the name identifier scheme	ROR
7.4.b	schemeURI	0-1	The URI of the name identifier scheme	<a href="https://ror.org/">https://ror.org/</a>

# ORCID iDs at UBC

- Used in multiple library systems
  - UBC Dataverse Collection (Borealis)
  - OJS
  - cIRcle (DSpace)
- Rarely used to the full extent/integration

# ORCID iDs at UBC

- Only one custom API use case in the university
- Graduate and Postdoctoral Studies' Researcher Supervisor Database

The image shows a screenshot of a web profile for Timothy Murphy. The profile includes the following sections:

- TIMOTHY MURPHY**
- PROFESSOR**  
[Faculty of Medicine](#)
- RESEARCH CLASSIFICATION**  
[Neurosciences, biological and chemical aspects](#)  
[Neurosciences, medical and physiological and health aspects](#)
- RESEARCH INTERESTS**  
Autism  
brain imaging  
depression

On the right side of the profile, there is a vertical menu with the following links:

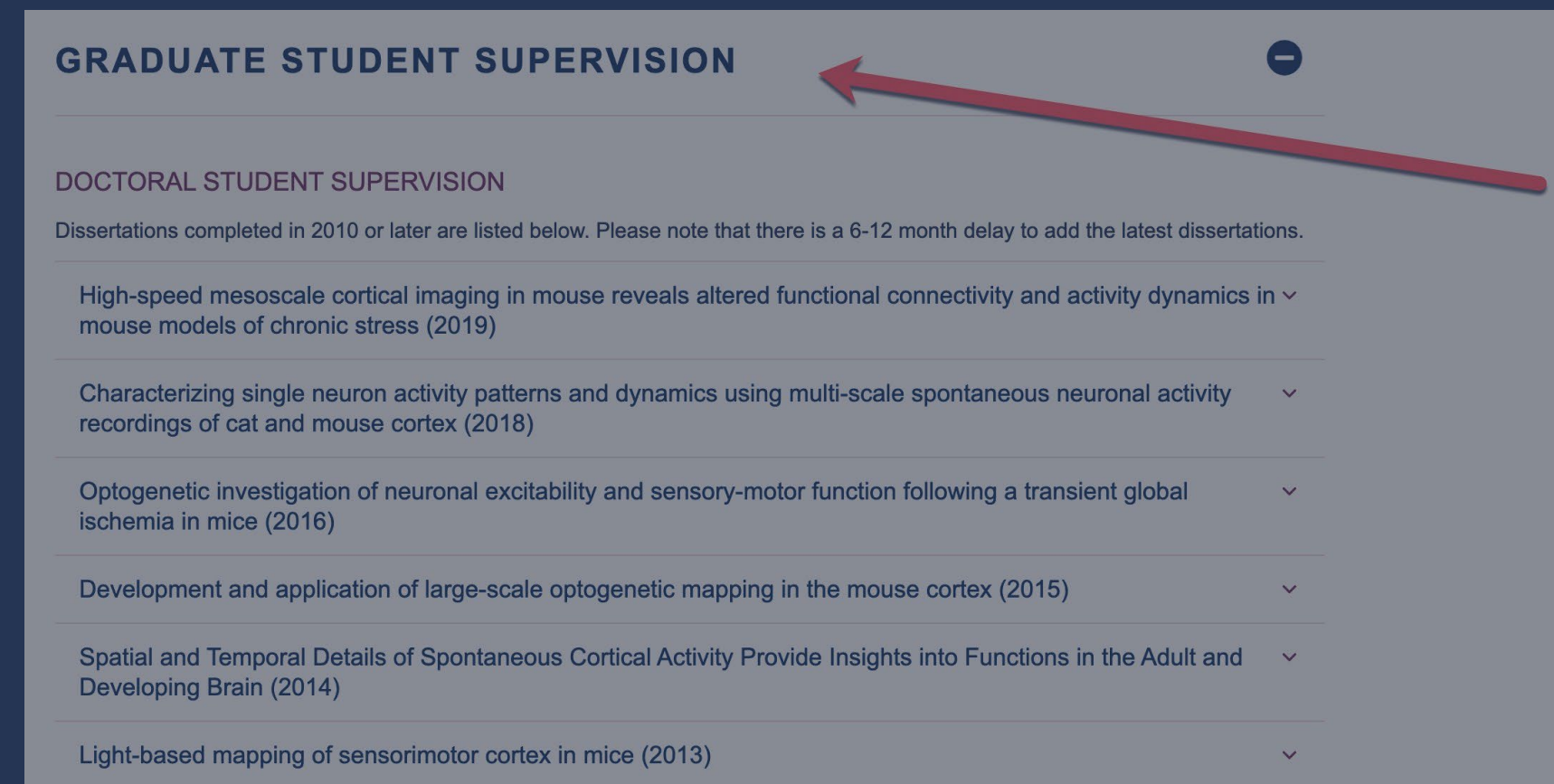
- TIMOTHY MURPHY'S PROFILE >**
- [PUBLICATIONS ON GOOGLE SCHOLAR >](#)
- [ORCID PROFILE >](#)
- [RESEARCHERID PROFILE >](#)
- [OTHER LINK >](#)
- [SUPERVISION ENQUIRY >](#)

A red arrow points from the 'ORCID PROFILE >' link in the menu to the 'ORCID PROFILE >' link in the main content area.



# ORCID iDs at UBC

- ORCID iDs are used to query our IR and extract dissertations by supervisor and feed into the Graduate and Postdoctoral Studies' site



**GRADUATE STUDENT SUPERVISION**

**DOCTORAL STUDENT SUPERVISION**

Dissertations completed in 2010 or later are listed below. Please note that there is a 6-12 month delay to add the latest dissertations.

- High-speed mesoscale cortical imaging in mouse reveals altered functional connectivity and activity dynamics in mouse models of chronic stress (2019)
- Characterizing single neuron activity patterns and dynamics using multi-scale spontaneous neuronal activity recordings of cat and mouse cortex (2018)
- Optogenetic investigation of neuronal excitability and sensory-motor function following a transient global ischemia in mice (2016)
- Development and application of large-scale optogenetic mapping in the mouse cortex (2015)
- Spatial and Temporal Details of Spontaneous Cortical Activity Provide Insights into Functions in the Adult and Developing Brain (2014)
- Light-based mapping of sensorimotor cortex in mice (2013)

## ORCID iDs at UBC

- Decent use case for ORCID iDs in UBC OJS
- Almost 500 ORCID iDs connected across time, and almost 200 ORCID iDs updated with metadata upon successful article publication.



 [Create or Connect your ORCID iD](#) [What is ORCID?](#)

### Profile

*Given Name* \*

*Family Name*

*Affiliation* \*

*Country* \*

# National PIDs Strategy

- Increase awareness and buy-in from administrators
- (Finally) allow integration into the university administration systems, e.g. Workday and RISE
- PIDs for grants, instruments, software
- But especially ways to integrate PIDs with one another, e.g. RORs/DOIs/ORCID as we are trying to do in the UBC Library!
- And finally allows us to speak the same language between librarians, administrators and researchers



Questions?

