

UBC RORs - the "Where" of persistent identifiers for linked digital assets

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- UBC Library, May 2025
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About UBC

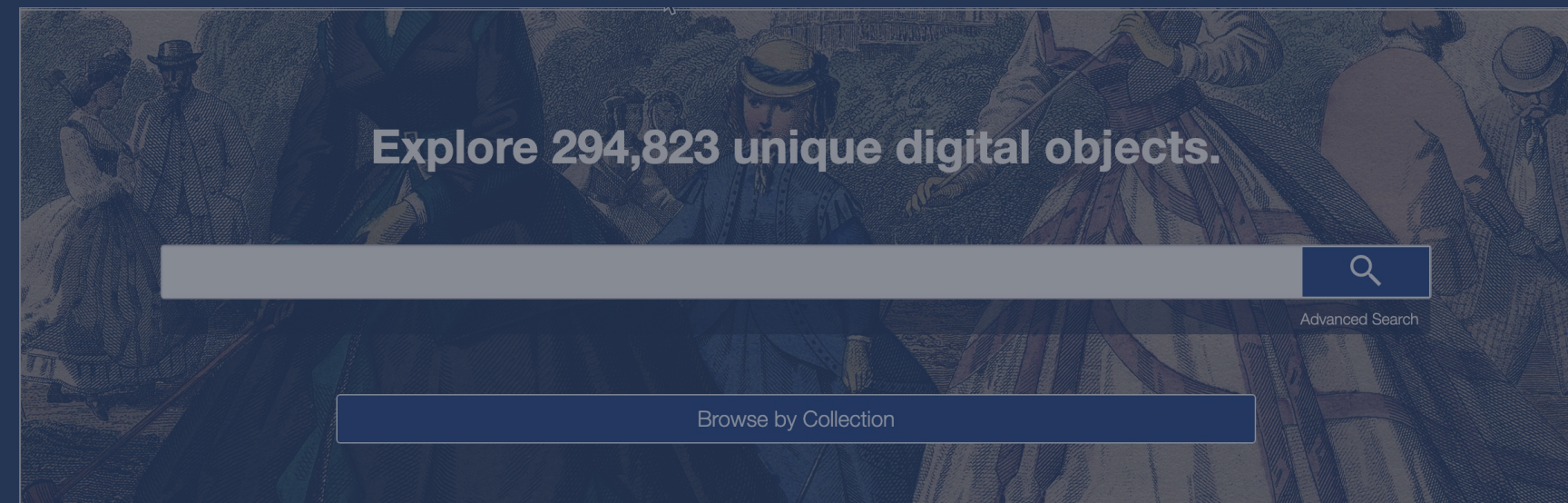
- 72,000 students
- 20,000 faculty and staff
- Almost \$900 million in research funding
- Annual budget of more than \$4 billion

About UBC Library

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

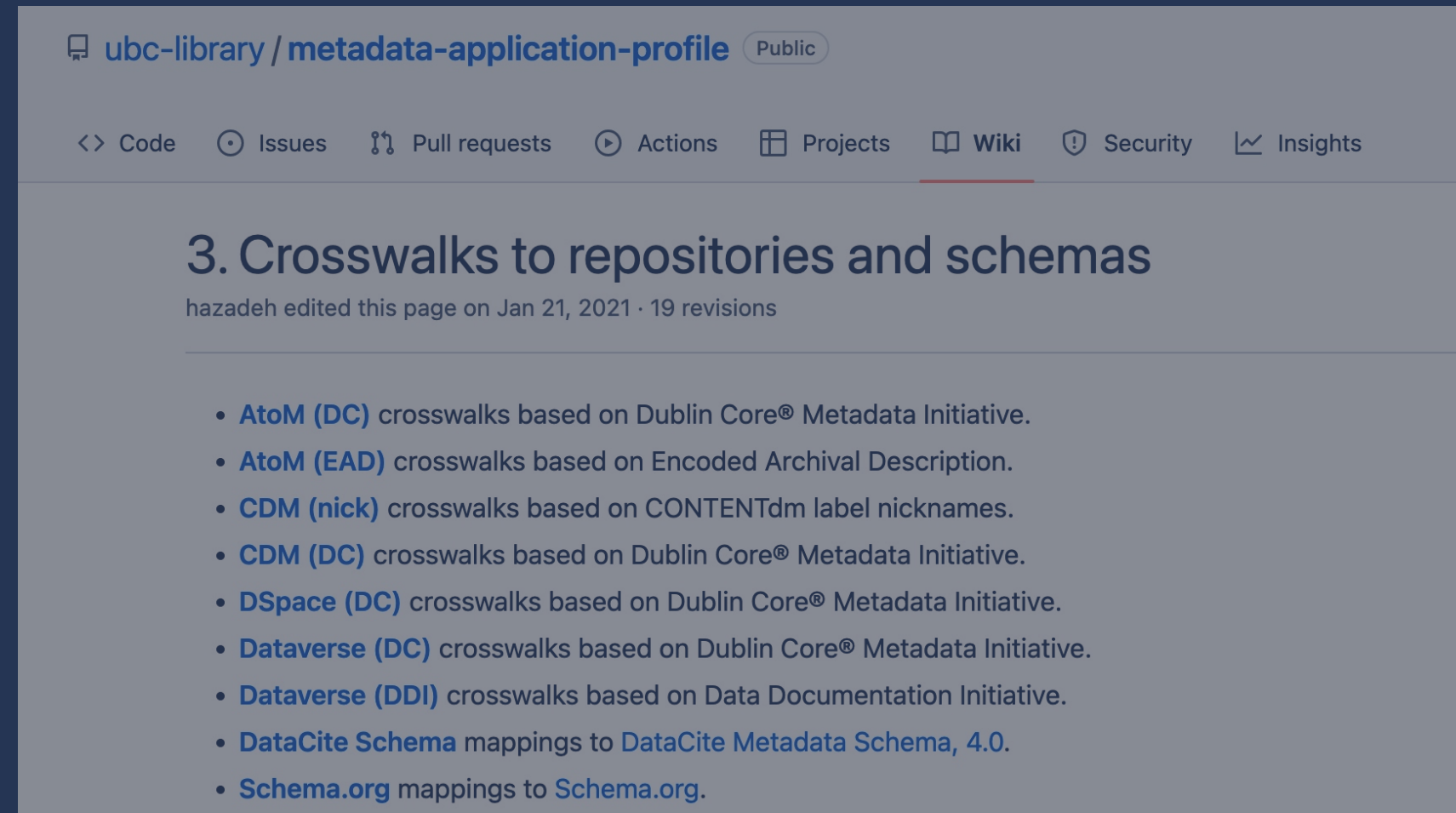
UBC Open Collections Discovery

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



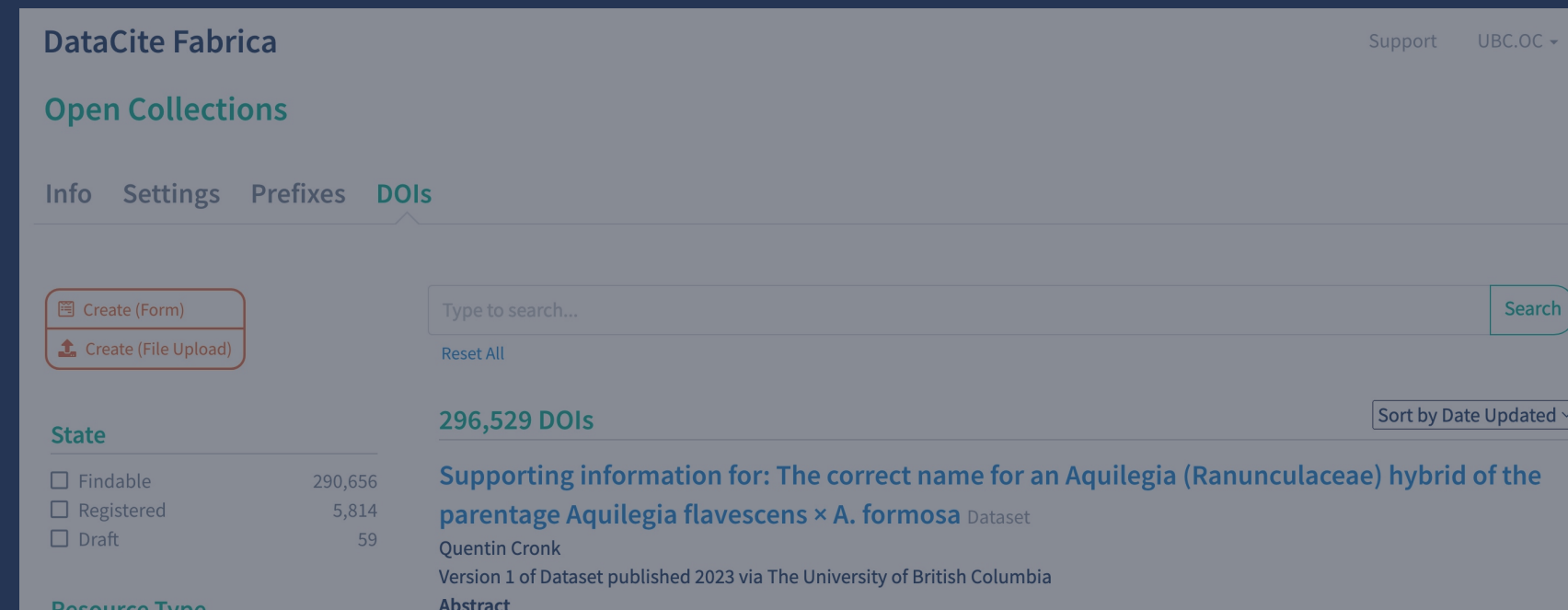
Discovery interface approach

- 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, not in source repositories



Scope and Scale

- Almost 310,000 DOIs minted and maintained
- Around 10,000 DOIs a year
- Weekly maintenance for broken PIDs



The screenshot shows the 'DataCite Fabrica' interface. At the top, there's a header with 'DataCite Fabrica' on the left and 'Support' and 'UBC.OC' on the right. Below the header, the 'Open Collections' section is active, with tabs for 'Info', 'Settings', 'Prefixes', and 'DOIs'. The 'DOIs' tab is selected, showing a search bar with 'Type to search...' and a 'Search' button. Below the search bar, there's a 'Reset All' link. A table shows the state of DOIs: Findable (290,656), Registered (5,814), and Draft (59). To the right of the table, it says '296,529 DOIs' and 'Sort by Date Updated'. Below this, there's a list of DOIs, with the first one being 'Supporting information for: The correct name for an Aquilegia (Ranunculaceae) hybrid of the parentage Aquilegia flavescens × A. formosa' by Quentin Cronk, published in 2023 via The University of British Columbia.

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

State

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

Resource Type

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

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:

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"
        ],
        "title": "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)

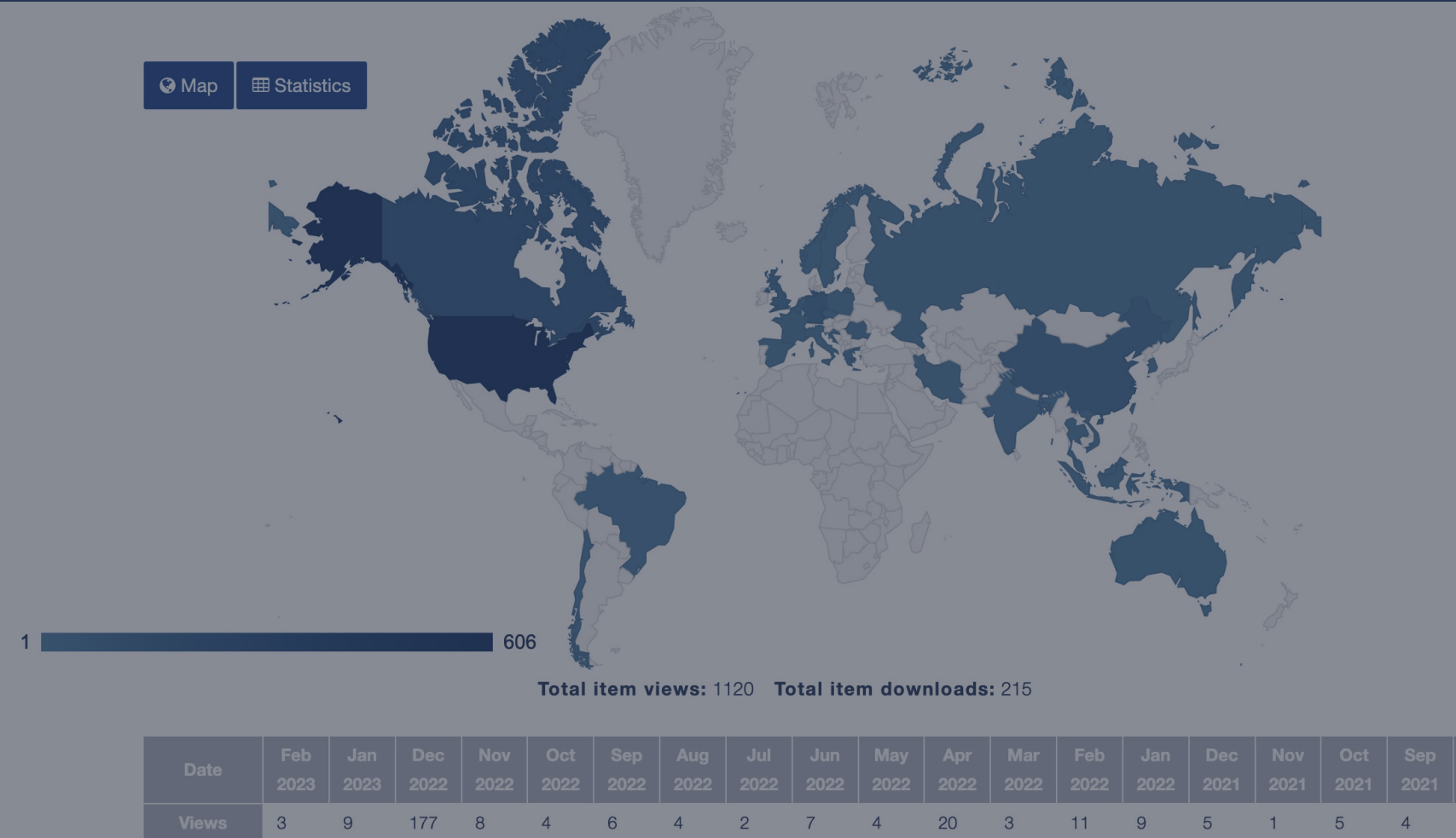
The screenshot shows the 'Open Collections' interface. At the top, there's a header with 'Open Collections' and navigation links like 'Return to Search' and 'Next Results'. Below this is a banner for 'UBC Theses and Dissertations' with a 'Featured Collection' icon. The main content area is titled 'Dickens and De Morgan' by 'Harvey, Isobel'. It includes an 'Abstract' section with the text '[No abstract available]'. Below the abstract is an 'Item Metadata' table. To the right of the table, there's a section for the PDF file 'ubc_1919_a8_h2_d5.pdf' (8.79MB) with 'Download PDF' and 'Embed PDF' buttons. At the bottom right, there's a 'Permanent URL (DOI)' section with the URL 'https://dx.doi.org/10.14288/1.0088712' and buttons for 'Generate Citation' and 'Download Metadata'.

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

ubc.ca

Landing page and Stats

- Each landing page has stats and locations enabled



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 ORCIDs and DOIs
- Replaced GRID IDs



Problem with institutional names

- Is it UBC, University of British Columbia, University of BC, U.B.C or anything in between?
- Programatically it is hard to distinguish
- Not good for linked data world

The screenshot shows the DataCite Commons interface. At the top, the logo 'DataCite Commons' is visible. A search bar contains the text 'university of bc'. Below the search bar, there are tabs for 'Works', 'People', 'Organizations', and 'Repositories'. The 'Organizations' tab is selected. Below the tabs, it says '27,876 Organizations'. On the left, there is a 'Country' filter section with a list of countries and their corresponding counts: United States of America (5,434), China (2,657), Japan (1,676), Russian Federation (1,553), and India (1,495). On the right, the search results for 'university of bc' are displayed, showing 'Bluefield College' as a result. Below the organization name, there are links for 'BC', 'Homepage', and 'Wikipedia'.

Country	Count
<input type="checkbox"/> United States of America	5,434
<input type="checkbox"/> China	2,657
<input type="checkbox"/> Japan	1,676
<input type="checkbox"/> Russian Federation	1,553
<input type="checkbox"/> India	1,495

Bluefield College
BC
Links
[Homepage](#)
[Wikipedia](#)

Solution - Embed RORs in Datacite metadata

- Include RORs in all *UBC-minted DOIs*
- Each UBC DOI has element #7 (Contributor in the Datacite Schema) enabled with controlled ROR entry for UBC

7. Contributor

Obligation: Recommended

Occurrences: 0-n

Definition: 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.

Embedding RORs in Datacite metadata

- Code element 7 (Contributor) in Datacite Schema 4.X (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.

```
▼ "contributors": [  
  ▼ {  
    "name": "University Of British Columbia",  
    "affiliation": [],  
    "contributorType": "HostingInstitution",  
    ▼ "nameIdentifiers": [  
      ▼ {  
        "schemeUri": "https://ror.org",  
        "nameIdentifier": "https://ror.org/03rmrcq20",  
        "nameIdentifierScheme": "ROR"  
      }  
    ]  
  }  
]
```


Embedding RORs in Datacite metadata

- Allows 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.
- Now, anyone willing to discover and harvest thousands of the UBC Library digital assets has an easy way to do so with a clear ROR query!

University of British Columbia https://ror.org/03rmrcq20			
305,022 Works	3,979 Citations ?	174,535 Views ?	33,822 Downloads ?
Founded 1908			
Links		Other Identifiers	
Homepage		GRID grid.17091.3e	
Wikipedia		Crossref Funder ID 10.13039/501100005247	
Twitter		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	

Questions?

