

Canadian Research Knowledge Network

Réseau canadien de documentation pour la recherche

### Persistent Identifiers (PIDs) in Canada Identifiants pérennes (IP) au Canada

Joint session with CARL-Portage Session conjointe avec ABRC-Portage

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crkn-rcdr.ca

### Agenda

- Introduction Maude Laplante-Dubé
  - What are PIDs? What is their value?
- Context Mike Nason
  - Key organizations and the current situation
- DataCite Canada Consortium Kelly Stathis
- ORCID-CA John Aspler
- PIDs in Canada: Implementation Lisa Goddard

BRIEF INTRODUCTION
AND ADVANTAGES FOR
THE CANADIAN
RESEARCH ECOSYSTEM

### PERSISTENT IDENTIFIERS (PIDS)

### PRELIMINARY TERMINOLOGICAL AND LINGUISTIC REMARKS

- In English
  - Persistent Identifier = PID
- In French
  - Identifiant persistant?
  - Identifiant pérenne?
  - Identifiant permanent?
  - IDP?



A PID identifies resources (and relevant metadata)

Unique chain of characters

Publications, individuals, data, institutions, etc.



Persistent

Persistent, trustworthy reference



Exploitable (actionable, resolvable)

Points towards the resource... and the metadata used to identify the resource

#### WHAT IS A PID?

#### THE PERSISTENT NATURE OF A PID IS NOT INHERENT



#### Persistent means...

..not so much the life cycle of the PID as the trustworthiness of the PID provider



### PIDs rely on the services of the organizations which produce them

Are they widely used? Well-known?

Do they provide a sustainable and interoperable infrastructure?



THEY PROVIDE LONG-TERMACCESS



THEY HELP DISTINGUISH RESOURCES



THEY ENSURE TRACEABILITY OF VERSIONS



THEY FACILITATE
TRACKING AND REUSING RESOURCES



THEY CREATE STRONG LINKS BETWEEN SYSTEMS



ENSURE LONG-TERM ACCESS They help avoid breaks in URL links, thus ensuring "persistent" citations.



DISTINGUISHING RESOURCES

Researchers are correctly quoted and are recognized for all of their work. This makes it very easy to calculate impact.



MAINTAINING TRACEABILITY OF VERSIONS It is possible to create links between different versions of a publication (preprint/postprint/version of record)



THEY FACILITATE
TRACKING AND REUSING RESOURCES

They facilitate access to resources as well as to other linked resources. (ex: Unpaywall, adding references to Wikipedia)



CREATING STRONG LINKS BETWEEN SYSTEMS Systems can enrich their metadata, which can be updated dynamically. Metadata are coherent and comparable.

(ex: ORCID autoupdate, CVC, etc.)

#### IN CONCLUSION...

PIDs can provide enormous potential for the Canadian research ecosystem, as long as they are used and integrated into the processes and platforms which compose this ecosystem.



### **An Astoundingly Brief Primer on Persistent Identifier** Context, Orgs, and **Open Infrastructure**

#### Mike Nason

Scholarly Communications and Publishing Librarian, UNB Libraries | Crossref and Metadata Liaison, PKP

Before we dig in, I need to make one thing super clear...

# PIDs are in the drinking water of scholarly publishing.

### Let's review some things we know.

### PIDs are unique IDs that we assign to an increasing number of things:

- Institutions
- Datasets
- People
- Organizations
- Articles
- Monographs
- Serials

PIDs should/can make locating and tracking materials/research easier.

PIDs are great for disambiguation and consistent metadata, because:

- Names aren't unique.
- Names don't follow rules.
- URLs change.
- Places, people, institutions... etc. are identified in myriad ways.

Judicious application of PIDs (and ubiquitous uptake) could save a lot of time.

## Let's review some things that are less well known.

PIDs are tied to registration agencies who collect & distribute metadata publicly.

Registration agencies use different and variably compatible metadata schema.

"Persistence is purely a matter of service."

- J. Kunze, 2013

PIDs aren't meant to be human-readable, custom URLs.

(DOIs ≠ fancy bit.ly)

# There are many registration organizations and types of PIDs

### ROR GRID ISNI

### Institutions

# ORCID (ISNI) ScopusID WoS ResearcherID

### Researchers

### Crossref / DOI

**Articles Proceedings** Monographs \*Datasets **Funding Agencies Grants** Reports **Standards Preprints** 

### Datacite / DOI

Software **Datasets** Collections Audio/Visual **Events** Models

### All of these platforms either pull data from, or push data to, an open pipeline of metadata.

(aka the water supply)

### The "API"

**Application Programming Interface** 

Oh, and most of these organizations are not-for-profit (obviously not Scopus or WoS).

### Let's try an example.

### Let's pretend...

### I am setting up my ORCID account.

### I want to add my publications!

Within ORCID, I can check against the **Crossref and Datacite APIs for** any publications matching my name

## Most publications assign DOIs.

It will take me a while to do this the first time, and it'll only work if my articles have DOIs. But...

For all my publications I know are mine, that have DOIs, the metadata is automatically pulled into my **ORCID** account.

#### And...!

Now that I have an ORCID, that metadata (ideally) is included when I publish, which means systems will know who I am.

# Let's try a more complicated example.

Let's pretend...

My institution is using Unsub to get a grasp on where my faculty publishes and how it matches our collections

Unsub is created and maintained by only two people.

The software takes affiliation information from the Microsoft **Academic Graph** which scrapes publications and uses NLP pattern matching.

Open infrastructure does the heavy lifting...

It then takes that affiliation data and checks against the **Crossref API for ISSN** and publications, your provided collection, **GRID or ROR** institutional IDs

### Unsub then uses that data...

... to tell you where your scholars are publishing, if it's OA (checks against **DOAJ** and scrapes for policies) and if journals you subscribe to are being published in.

# Without the Crossref API, this whole process disappears.

Publications that aren't using DOIs are, essentially, "off the grid."

Persistent identifiers allow us to see the big picture through all of these connections and interactions.

When we talk about support for PIDs we're talking about supporting open infrastructure and free exchange of metadata.

Thanks, I hope this was not too much (or too fast) to be useful.

#### I was Mike Nason,

**UNB Libraries and the Public Knowledge Project.** 



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#### DataCite Canada Consortium

A New National Consortial Approach

#### What is the DataCite Canada Consortium?

- Partnership between CRKN and CARL Portage
  - CRKN manages administration, licensing, and finance
  - CARL Portage manages community engagement and support
- Consortium member of DataCite
  - Consortium Lead + Consortium Organizations
  - Lower cost than direct membership
  - Additional technical support

#### What is DataCite?

- DOI registration agency
- Emphasis on data (but not exclusively)
- Members register DOIs:
  - persistent identifiers for digital objects, widely used for identifying published content, datasets, and other scholarly research outputs
- Two membership types:
  - Direct Member
  - Consortium

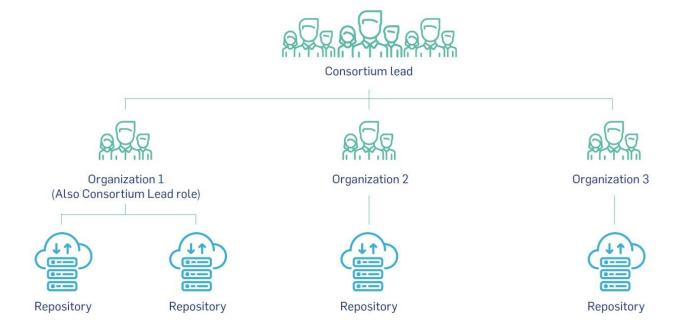


#### DataCite Updates

- New fee structure
  - Approved by DataCite members in April 2020
  - Corresponds with new membership model
  - Consortium fee + organization fee + DOI fee
- Board elections
  - Rebecca Ross (CRKN) elected to <u>DataCite Executive Board</u>

#### DataCite Canada Transition Updates

- In 2020: Migrated to new <u>DataCite membership model</u>
  - National Research Council ("CISTI") former provider
  - DataCite Canada new consortium lead



#### Consortium Membership

50 Consortium Organizations58 Repositories

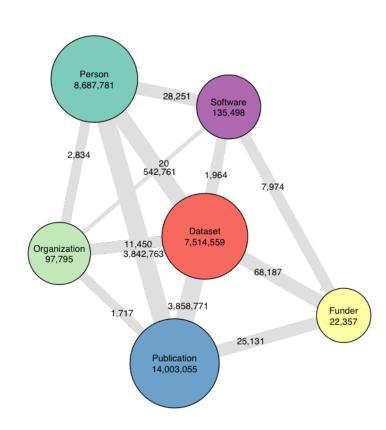
> **20,000** DOIs minted in 2020

#### Consortium Governance

- DataCite Canada Governing Committee (DCCGC)
  - Establishing strategic goals and priorities for the DataCite Canada Consortium; monitoring structure and costing; organizing annual meeting; providing advice and guidance based on feedback from members
  - Call for nominations closes November 6, 2020
- Canadian Persistent Identifiers (PID) Advisory Committee (CPIDAC)
  - Advising DataCite Canada and ORCID-CA on international trends and best practices; developing and championing a national implementation strategy for PIDs in Canada
  - Forming from the ORCID-CA Advisory Committee

#### Connections to the broader PIDs ecosystem

- The PID Graph
  - Contains:
    - DOIs from DataCite and Crossref
      - datasets, publications, software...
    - ORCID IDs
    - Research Organization Registry (ROR)
    - Crossref Funder ID
  - Search interface: <u>DataCite Commons</u>
  - API: DataCite GraphQL API



#### Connections to the broader PIDs ecosystem

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    <givenName>Kelly
    <familyName>Stathis/familyName>
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<fundingReference>
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</fundingReference>
```



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#### Questions? Contact datacite@crkn.ca:

- Jason Friedman, Manager, Member and Metadata Services, CRKN
- Lee Wilson, Service Manager, Portage Network
- Kelly Stathis, Discovery and Metadata Coordinator, Portage Network



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#### ORCID-CA: Overview and Update

John Aspler

**ORCID-CA Community Manager** 

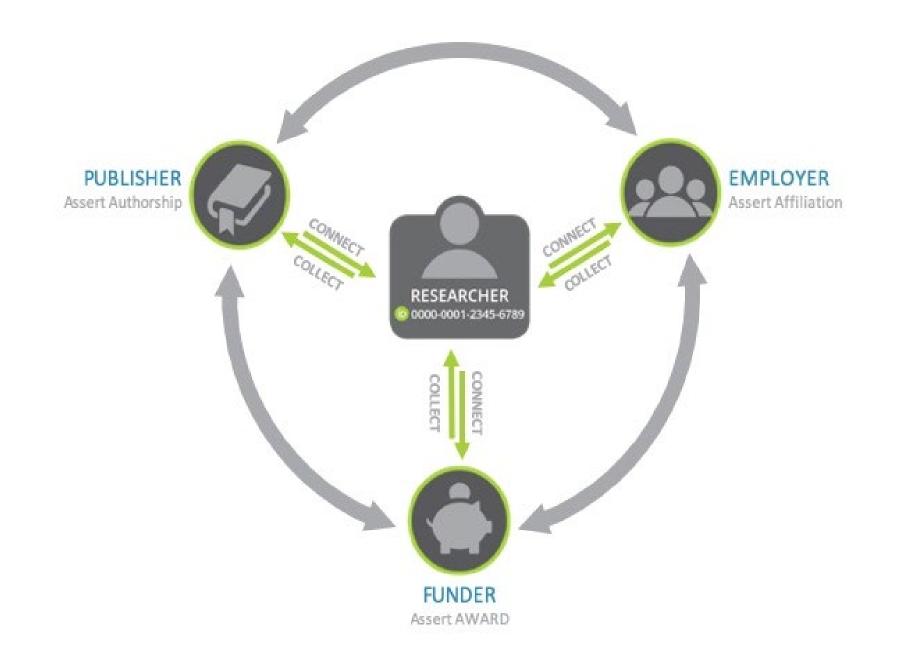
ORCID'S VISION IS A WORLD WHERE ALL WHO

PARTICIPATE IN RESEARCH, SCHOLARSHIP, AND INNOVATION

ARE UNIQUELY IDENTIFIED AND CONNECTED TO THEIR

CONTRIBUTIONS AND AFFILIATIONS ACROSS TIME,

DISCIPLINES, AND BORDERS.



#### Introducing ORCID-CA









compute | calcul

canada

canada



























#### **ORCID-CA Vision: Joint Statement of Principles (2017)**

As a matter of principle, we

- 1. Recognize the value of "common" unique researcher identifiers in making research information and data more useful and meaningful...
- 2. Strongly encourage the use of ORCID across the research ecosystem;
- 3. Commit to support the use of ORCID as a common researcher identifier

#### **ORCID-CA:** Governance

- ORCID-CA Governing Committee (OCGC)
  - Establishing strategic goals and priorities for ORCID-CA
  - Call for nominations closes October 30, 2020
- **NEW**: Canadian Persistent Identifiers (PID) Advisory Committee (CPIDAC)
  - National PIDs Implementation Strategy
  - Advising ORCID-CA and DataCite Canada on international trends and best practices
  - Previously the ORCID-CA Advisory Committee (OCAC)

#### **ORCID-CA: Strategic Goals**

- 1. Researchers in Canada will have an ORCID iD
- 2. Those researchers will actively use and maintain their ORCID Record
- 3. Tri-Agency will integrate ORCID w/ grant management & CV systems
- 4. ORCID-CA Consortium is a growing and sustainable organization
- Publishers, funders, and institutions across Canada will consider ORCID as the community-supported choice for a researcher PID

#### **ORCID-CA:** Priorities

- Build and grow the ORCID-CA Community of Practice
- Engage funders across Canada, especially the Tri-Agency
- Develop highly customizable communications resources
- Create resources to support technical integrations

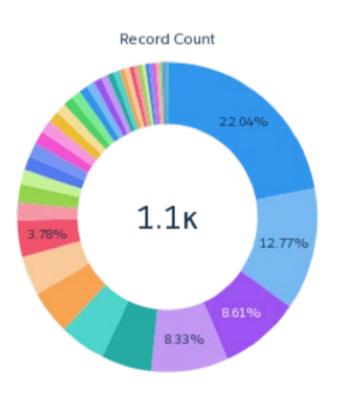
#### **ORCID: The Numbers**

9 million researchers have an ORCID iD

125,000 with '.ca'

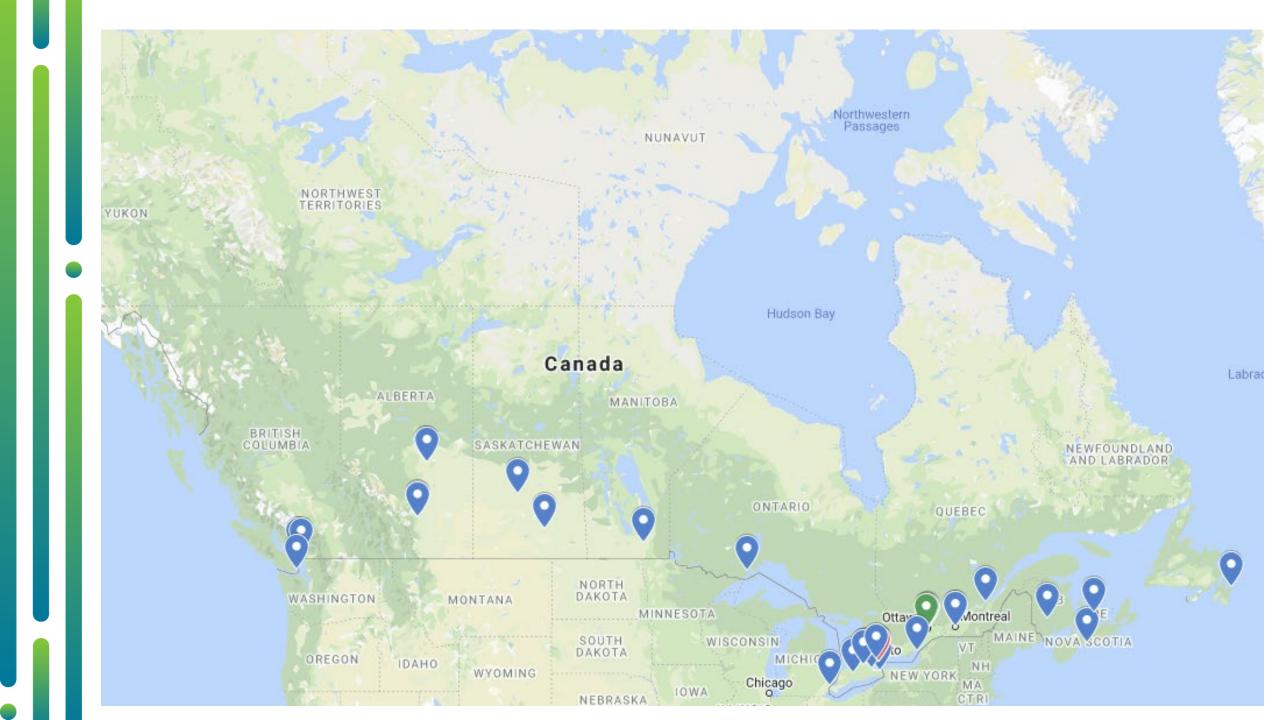
1,150 organizational members in 45 countries

23 national/regional consortia





China 🌕



#### **ORCID-CA: 38 Members**

- Bank of Canada
- CIFAR
- Kwantlen Polytechnic University
- McGill University
- Mount Royal University
- Queen's University
- University of Alberta
- University of Guelph
- University of Manitoba
- University of Prince Edward Island
- University of Toronto
- University of Windsor
- York University

- Brock University
- Concordia University
- Lakehead University
- McMaster University
- National Research Council
- Ryerson University
- University of British Columbia
- University Health Network
- University of New Brunswick
- University of Regina
- University of Victoria
- Western University

https://orcid-ca.org/about

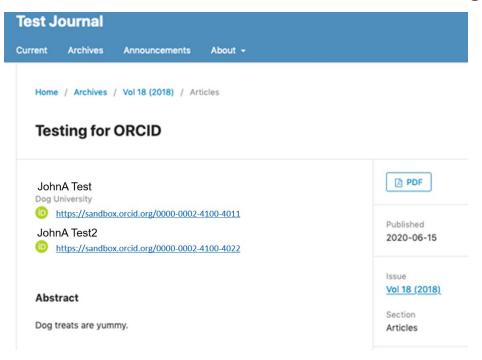
- Carleton University
- CARL-Portage
- Dalhousie University
- MacEwan University
- Memorial University of Newfoundland
- Ottawa Hospital Research Institute
- Simon Fraser University
- University of Calgary
- Université Laval
- University of Ottawa
- University of Saskatchewan
- University of Waterloo
- Wilfrid Laurier University

#### What have we done this year?

- Calls with every member
  - Asked about outreach at each institution
  - Asked about integrations and systems at each institution
  - "What support or resources would you like from ORCID-CA?"
- Building the Canadian community of practice
  - Shared resources (member materials drive)
  - Monthly community calls (open to everyone)
  - Facilitating inter- and intra-institutional communication
  - Energizing existing community channels (e.g., member-only Slack)
  - Engaging with key strategic organizations across Canada
- Built relationships with global counterparts (e.g., ORCID US Community)

# What have we done this year?

- Members are developing exciting member integrations
  - We've formed the ORCID-OJS Working Group



Momentum is building!

### **Access to ORCID-CA**

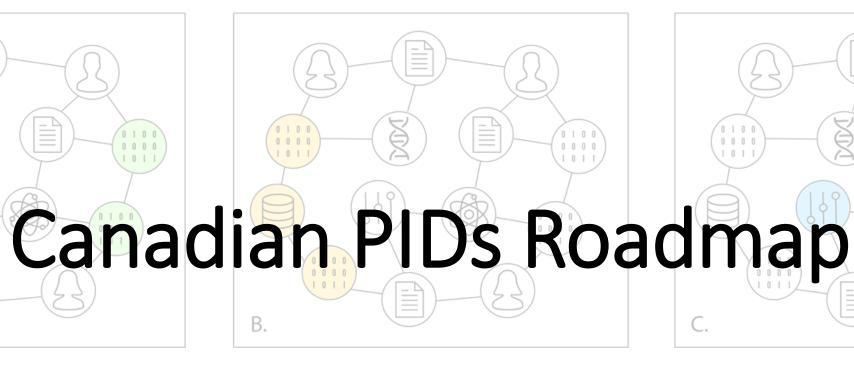
- We know that the cost of membership and the ability to integrate ORCID with local systems may not be accessible to all Canadian institutions
- ORCID will soon launch several tools to improve the situation for members without the capacity to develop an ORCID integration
- The ORCID-CA Governing Committee and CPIDAC are looking carefully at these challenges, as we continue to work closely with colleagues across Canada to address accessibility and long-term sustainability

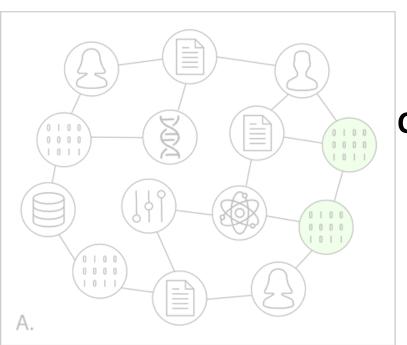
# **Contact Us**

Interested in joining or ready to learn more about ORCID at your institution? Let's chat:

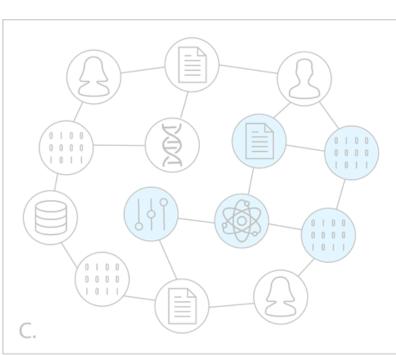
John Aspler, Community Manager - ORCID-CA: jaspler@crkn.ca











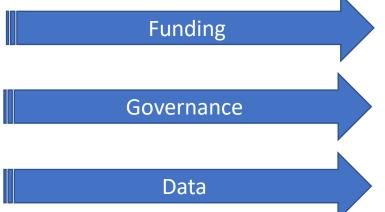
# The International PIDs Ecosystem



Policy Makers
Funders
Research Orgs
Platform Providers

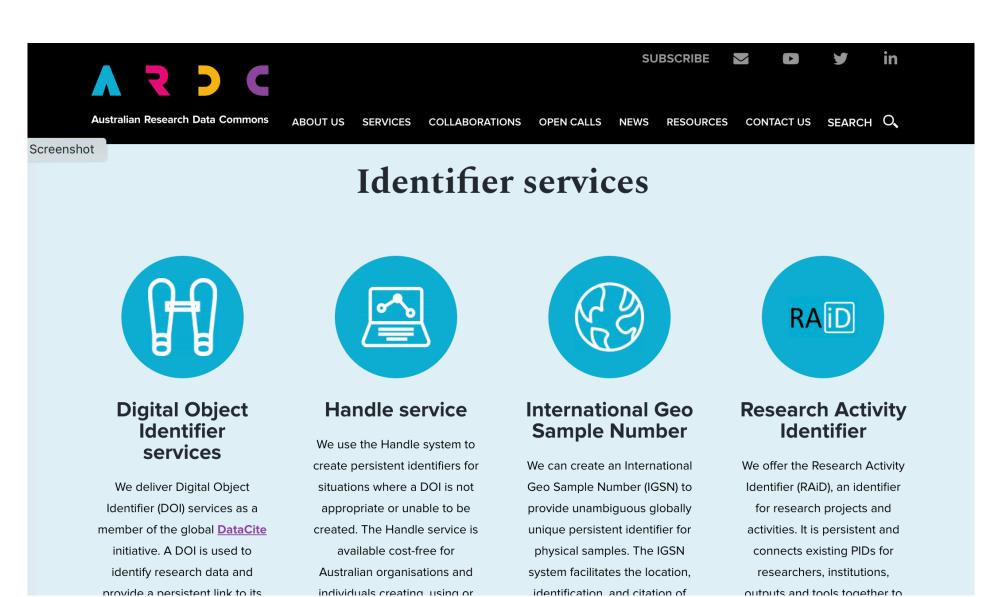


PID Providers
Standards Orgs
Publishers





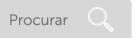
### Australian Research Data Commons



# Portugal: National Research Management Ecosystem



#### Pesquisar



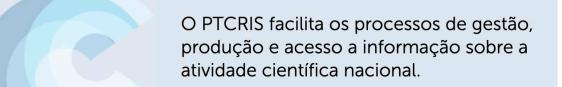
O PTCRIS para

Comunidade Científica Instituições Público Geral

Siga-nos



### Bem-vindo ao PTCRIS







# **UK - JISC PIDs Roadmap**

# Developing a persistent identifier roadmap for open access to UK research



### Introduction

"Using PIDs offers thus a number of great advantages such as clear and stable identities allowing humans and machines to exactly refer to the right data even after many years, to have easy ways to prove identity, integrity, and authenticity, to provide stable references also as basis for citations, to easily find descriptive metadata, and information needed for authorization, for reuse tracing information, on versioning, etc. We realize, however, that we are increasingly dependent on a stable PID system..."

Peter Wittenburg<sup>2</sup>

### European Open Science Cloud



### Second draft Persistent Identifier (PID) policy for the European Open Science Cloud (EOSC)

DOI for version 2: https://doi.org/10.5281/zenodo.3780423

This policy was authored by representatives of the EOSC FAIR Working Group and EOSC Architecture Working group. See Appendix 3 for details. This is version 2 of the policy and released in May 2020 for community feedback and comment.

We welcome further responses to and comments on this version. Please share them with the wider community on <a href="https://pidforum.org">https://pidforum.org</a> or email them to us <a href="pid-policy@eoscsecretariat.eu">pid-policy@eoscsecretariat.eu</a>. We understand that some areas may require discussion and encourage you to have that discussion on <a href="https://pidforum.org">https://pidforum.org</a>. That is where we will also provide details of opportunities for face-to-face feedback and discussion.

We will develop a final version that will be delivered to the EOSC Governance Board in October 2020.

# Elements of a National Roadmap

- Commitment from key partners/stakeholders
- PIDs steering group
- Consensus around Identifiers to be promoted and supported
- Funding strategies for PID memberships
- Local outreach and training
- Identify some strategic, high-impact integrations
- Participate in PID provider governance
- Evaluate and articulate impact

# Commitment from Key Partners/Stakeholders

**Policy & Funding:** 

**ISED** 

**Tri-Agencies** 

**NDRIO** 

**CANARIE** 

**Research Orgs:** 

Universities

**Research Hospitals** 

Research Institutes

Centres of Excellence

**Platform Providers:** 

**Data Repositories** 

**Institutional Repositories** 

**Publishers** 

Joint Statement of Principle: Adoption and use of ORCID identifiers in New Zealand





















# PIDs Steering Group - CPIDAC

The Canadian Persistent Identifiers Advisory Committee (CPIDAC) will act in the interests of the Canadian scholarly community to provide expertise and advice to the DataCite Canada Consortium Governing Committee and the ORCID-CA Governing Committee on leveraging maximum benefits through national adoption and use of those persistent identifiers (PIDs). The CPIDAC will consider other opportunities to foster adoption of appropriate identifiers within the Canadian research ecosystem. This will include, but not be limited to:

- Advising the two existing consortia and government research and infrastructure funding bodies on international trends and emergent best practices in the use of PIDs;
- Developing and championing a national implementation strategy for PIDs in Canada;
- Providing advice to key stakeholders on national opportunities to leverage the benefits of DataCite Canada Consortium and ORCID-CA membership.

# PIDs Steering Group - CPIDAC

**Policy & Funding:** 

**Tri-Agency Grants** 

Management Solutions

Fonds de recherche de

Québec

**CANARIE** 

Compute Canada

Research Data Canada

**Research Orgs:** 

**CARA** 

**CUCCIO** 

**CARL** 

**OCUL** 

**COPPUL** 

BCI

**CAUL** 

**CRKN** 

**Platform Providers:** 

Scholar's Portal

Érudit

**PKP** 

CARL/Portage

# Consensus around Identifiers to be promoted and supported

iD ORCID	Global consensus (others: Scopus ID, ResearcherID) 1162 members globally
Crossref DataCite	Global consensus (others: Handle, URN) Crossref: most journal publishers Datacite: most data repositories
RORXX	Emerging standard (others: ISNI, Ringgold) Netherlands, UK, California Digital Library, Crossref, Datacite, Digital Science
RAID	Emerging standard Australia, Netherlands, UK

# Funding Strategies for PID Memberships

Crossref is currently sustainable and ORCID is on track to reach break-even during 2019. DataCite is however currently dependent on grant income for nearly 50% of its operating budget. RAiD and ROR do not have meaningful business models yet. (UK PIDs Roadmap, 2020)

# Funding Strategies for PID Memberships

# e.g. ORCID-CA: flat fee for consortium members

#### **ORCID-CA currently has 38 institutional members:**

Bank of Canada	Brock University	
CIFAR	Concordia University	
Kwantlen Polytechnic University	Lakehead University	
McGill University	McMaster University	
Mount Royal University	National Research Council	
Portage Network	Queen's University	
Simon Fraser University	University of Alberta	
University of Calgary	University of Guelph	
Université Laval	University of Manitoba	
University of Ottawa	University of Prince Edward Island	

### e.g. Datacite: Pay by use

Annual Fee for DOIs		
Range	Break Point	Fee
0-100	0	0.00€
101-10,000	101	500.00€
10,001-100,000	10,001	2,000.00 €
100,001 plus	100,001	3,000.00 €

**Inclusion**: developing models of inclusion that bring truly global voices into the PID community.

# Funding Strategies for PID Memberships



### ORCID in New Zealand FAQ

### Is there a cost to becoming a Consortium member?

No, not directly. The Ministry of Business, Innovation and Employment has generously agreed to support the Society's ORCID Work Programme. This Work Programme includes payment of the consortium fee for up to 99 eligible New Zealand organisations to join in a national approach to ORCID membership.

The Ministry is also supporting the development of a NZ ORCID hub (a web application with a simple user interface) to allow organisations of all scales and technical resource capability to productively engage with ORCID.

### **Local Outreach and Training**



Libraries

Select Language | ▼

Ask us

Search this Guide

Search

Libraries / LibGuides / ORCID (Unique Personal Identifier) / What is ORCiD?

#### ORCID (Unique Personal Identifier)

ORCID is a non-profit organization that provides scholars and students with unique, persistent identifier so that your professional activities can be recorded, shared, and moved no matter where you go in your professional life...

#### What is ORCiD?

Sign up for ORCiD

**Add Your Education** 

**Add Your Employment History** 

**Add Your Grants** 

**Add Your Publications** 

**Privacy Settings** 

**ORCiD Video Tutorials** 

**UVic & ORCiD** 

**ORCID FAQ** 

**Download Presentation (slides)** 

**Arrange Workshop/Personal** 

#### What is ORCID?



and Researchers

ORCiD (Open Researcher and Contributor ID) is a powerful tool that allows researchers to record, share, and move their scholarly information. Imagine having a CV that follows you from institution to Connecting Research institution or if you change your name. ORCiD assigns you a unique identifier so that you can get credit (no matter where you go, no matter what you are called) for your scholarly work.

ORCID, a non-profit organization, "is part of the wider digital infrastructure needed for researchers to share information on a global scale. We enable transparent and trustworthy connections between researchers, their contributions, and affiliations by providing an identifier for individuals to use with their name as they engage in research, scholarship, and innovation activities" (Our Mission).

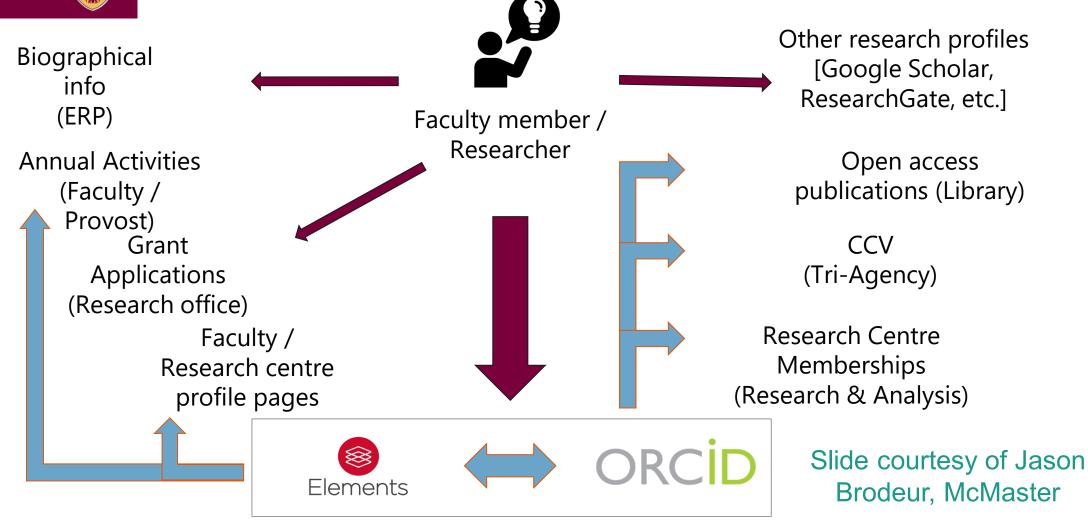
#### Why Use ORCID?

When you sign up for an ORCID, you will be given a 16-digit unique identifier, which will allow you to:

- Get credit for ALL of your scholarly work: articles, grants, education, and awards.
- Be who you are: If you've changed your name, you can associate your new name with your scholarly work under a different name.
- Avoid mistaken identity if someone else shares your name.



# Local Outreach and Training



### Strategic, High-Impact Integrations



2020-10-06 14:46 EST

Common CV		
About us		
Partners		
News		
Contact us		
Help		

#### News

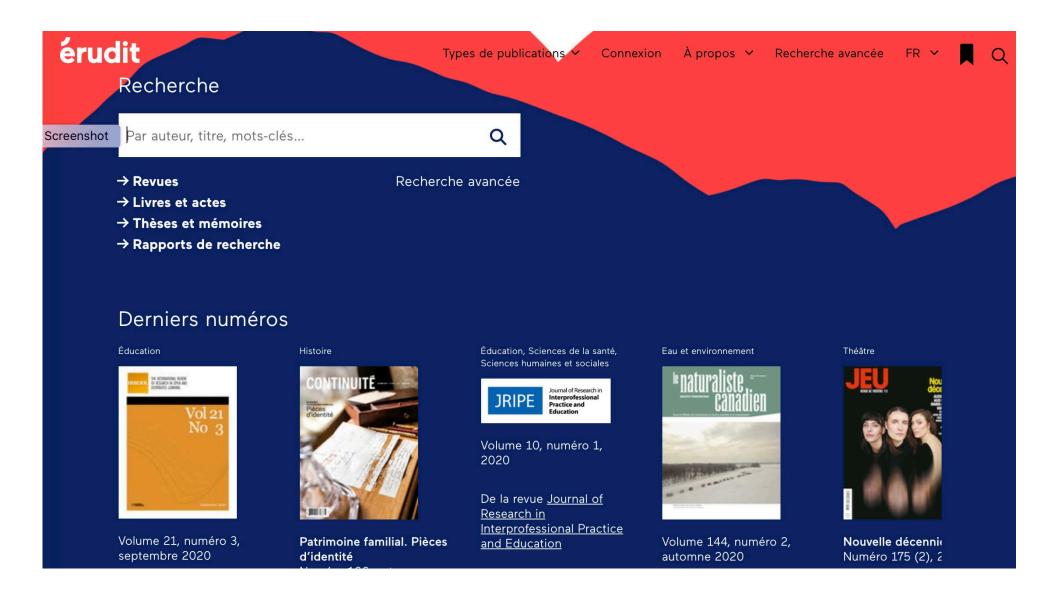
#### 2020

February 28, 2020

#### Modernization of the CCV user interface

As indicated by the Presidents of the three granting agencies in <a href="their response">the CCV open letter</a> of December 2019, a project is under way to modernize the CCV user interface by improving and simplifying the overall navigation and functionality of the application. As noted, this will be a short-term project to immediately improve the user experience and alleviate some of the main pain points related to the CCV's usability. To start the project in the Fall of 2019, feedback was collected and validated with a group of stakeholders. This feedback, which was focused on the functionality of the CCV, shaped and refined the changes to the user interface.

# Strategic, High-Impact Integrations



### Participate in PID Provider Governance

- ORCID Board of Directors (Elected from members)
- Crossref Board and Committees (Mostly publishers, members vote)
- Datacite Executive Board (Elected from members Rebecca Ross, CRKN)
- ROR Community Advisors (From many different types of orgs)
- RAID (mostly Australian gov't orgs at the moment)

# Evaluate, Articulate Impact



RESEARCH ARTICLE

#### Assessing the uptake of persistent identifiers by research infrastructure users

Matthew S. Mayernik , Keith E. Maull

Published: April 10, 2017 • https://doi.org/10.1371/journal.pone.0175418

Article	Authors	Metrics	Comments	Media Coverage
*				

**Abstract** 

Introduction

Background: From data citation to research infrastructure citation

Organizational context

Method

Results

Discussion

#### Abstract

Significant progress has been made in the past few years in the development of recommendations, policies, and procedures for creating and promoting citations to data sets, software, and other research infrastructures like computing facilities. Open questions remain, however, about the extent to which referencing practices of authors of scholarly publications are changing in ways desired by these initiatives. This paper uses four focused case studies to evaluate whether research infrastructures are being increasingly identified and referenced in the research literature via persistent citable identifiers. The findings of the case studies show that references to such resources are increasing, but that the patterns of these increases are variable. In addition, the study suggests that citation practices for data sets may change more slowly than citation practices for software and research facilities, due to the inertia of existing







**ADVERTISEMENT** 



Thanks!

lgoddard@uvic.ca

# Thank You / Merci



Discussion