Canadian Research Knowledge Network

Réseau canadien de documentation pour la recherche

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Better Data, Lower Burden, Higher Impact:

The Value of **Persistent Identifiers (PIDs)** across the Research Ecosystem

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Agenda

1. What is a PID? A very brief introduction
2. PIDs in Canada: A National Strategy
3. Value and Use Cases
   - Value of PIDs for Funders
   - Value of PIDs for Libraries
   - Value of PIDs for OVPRs
4. Questions/Discussion

What is a PID?
A very brief introduction

Persistent Identifiers (PIDs)

"A persistent identifier (PID) is a globally unique digital string of characters that is associated with a single thing, or entity."
– MoreBrains Cooperative, 2022

"PIDs are the anchors that facilitate links between related pieces of information… IDs are labels that refer to a specific entity in the information landscape, such as an object, organization, person, or dataset…"
– Leggott et al, 2022

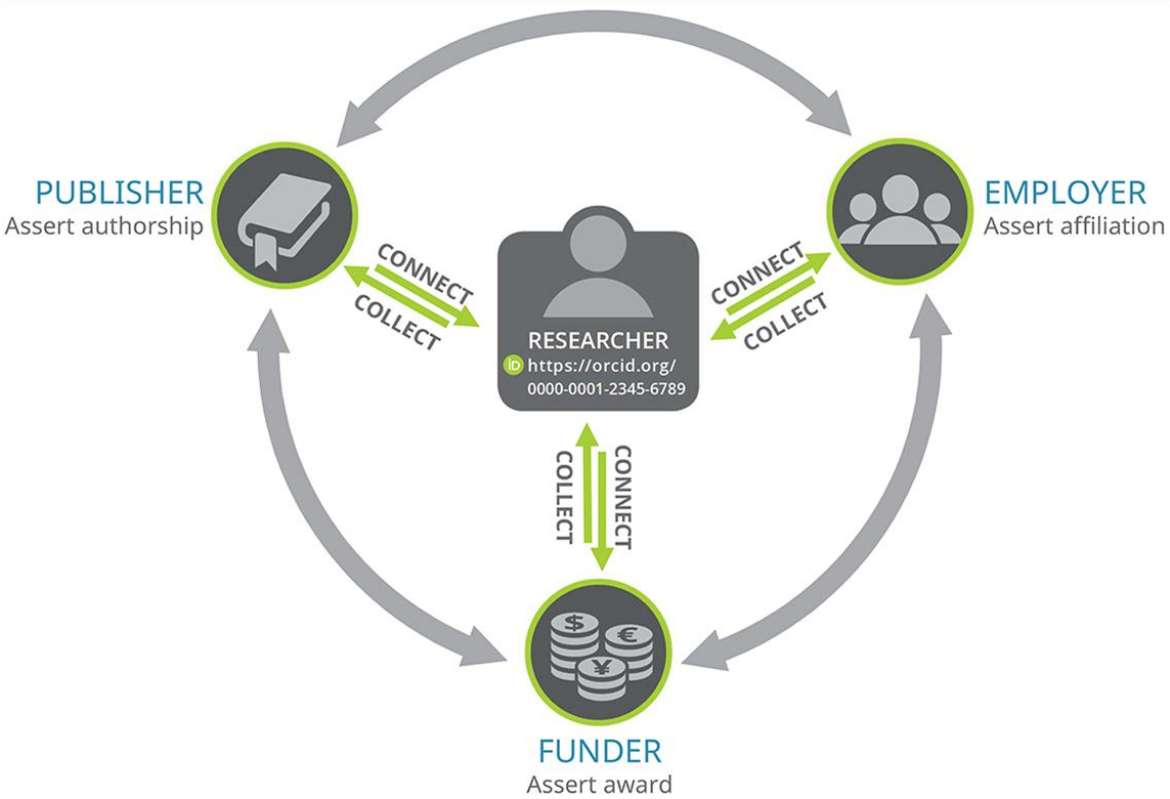
- ORCID iD: https://orcid.org/0000-0001-7055-4357
- DOI (publications): https://doi.org/10.26522/ssj.v16i2.2702
- ROR (organisations): https://ror.org/03yrm5c26

PIDs

- Persistent
- Global
- Unique
- String of characters
- Digital

- Persistence is not *inherent* – PIDs must be supported through PID registration agencies (e.g., ORCID) – and through your support!

Interoperability



Persistent Identifiers (PIDs) in Canada

ORCID Canada Consortium

- 55 members (U15, Funders)
  - NSERC, SSHRC, FRQ, CFI
- 82 system integrations
- 160K of 250K active iDs (.ca)

DataCite Canada Consortium

- 85 members
- 107 repositories
- 750,000 DOIs

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Digital Research Alliance of Canada | Alliance de recherche numérique du Canada

PID Governance

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ORCID Canada Governing Committee

DataCite Canada Governing Committee

CPIDAC

- *Canadian Persistent Identifier Advisory Committee*
- Governing Committees made up of/elected by the membership
- Shared advisory committee, advising both bilingual PID consortia
- PID Strategy Development and Implementation
- Committee composed of
  - Funders
  - Library Associations and Consortia
  - Digital Research Infrastructure
  - Others (e.g., CIOs, Research Administrators)
- Funding from Digital Research Alliance of Canada

Digital Research Alliance of Canada | Alliance de recherche numérique du Canada

PIDs in Canada: A National Strategy

National PID Strategy

Why a national strategy?

- Community-driven approach
- Collaborative work across sectors
- National funding to support centralized initiatives
- National policies (Open Science)

Phases I & II

- CRKN, Alliance, CPIDAC
- Community Consultations
- MoreBrains Report (Phase I)
- Comms Toolkit (Phase II)
- Priority PID Entities (Phase II)

Phase III

- Annual In-Person CPIDAC Meeting
- A Checklist for Success
- Vision, Mission, Principles
- Gap Analysis
- PID Selection Matrix
- Final Report/Recommendations

Next Steps

- Strategic Workplan
- Entity-by-Entity Action Plan
- Technical Capacity
- Engagement Strategy

Final Report: Priority PIDs for Priority Entities

Priority Entities	Candidate PIDs	Maturity	Next Steps: PIDs Recommended in Report
People	**ORCID** ISNI	Established Established	Recommend the use of **ORCID iDs** for current scholars – we do this already. ISNI might be a helpful use case for historical or cultural figures – to study. Scopus does not respond to the PID Matrix Selection Criteria/Principles.
Outputs	**Crossref DOIs** **DataCite DOIs** ARKs	Established Established Established*	Metadata schema should guide the choice of **DataCite** vs **Crossref**. *ARKs depend on resolver context. Evaluate ARKs with DOIs to see when needed.
Organizations	**ROR** ISNI	Emerging Established	**ROR** is an emerging PID, but likely the candidate of choice. ISNI requires study. Ringgold does not respond to the PID Matrix Selection Criteria/Principles.
DMPs	**DataCite DOIs**	Established	Recommend the use of **DataCite DOIs**.
Grants	Crossref DOIs DataCite DOIs	Established Emerging	Careful comparison of use cases; Crossref used by some CA funders.
Projects	**RAiD**	In Development	**RAiD** is the only candidate, but still in early stages of development. To watch.
Software	SWIHDs	Emerging	SWIHDs show promise, but low maturity and adoption. To watch and study.
Facilities, Instruments, Equipment, Resources	ROR DataCite DOIs RRIDs	N/A	Too much complexity in this space – some options exist (RRIDs for biological resources, ROR for some facilities, DOIs for some instruments), so it is recommended to watch and study.

Value of PIDs for Funders

Persistent Identifiers for Funders

Presented by: Adam Eikenberry

Date: 06/05/2025

Common Administrative Services Directorate

Direction services administratifs commun

Information and Innovation Solutions Division

Division des solutions d'information et d'innovation

NSERC CRSNG

SSHRC CRSH

Persistent Identifiers For Funders

Integrations between granting systems and persistent identifiers (e.g. ORCID) offer the opportunity to assist with the flow of information to and from the granting systems to researcher's profiles. This could include populating profiles or application CVs with employment or contribution details, pushing awards back to researchers' profiles, etc.

As more funders enable these integrations, Researchers can maintain a single profile such as ORCID and use it to feed multiple funders.

By linking different PIDs it can assist with understanding impact of policies such as Open Access, and tracking awards to publications.

Recent Developments

As part of the Convergence Platform, NSERC and SSHRC have enabled an integration with ORCID, allowing applicants to link their profiles and pull contribution details from their ORCID profile to populate CVs.

As work on the TGMS Platform moves ahead, the Tri-Agencies are looking to include the ORCID integration and also enable further integration of PIDs.

Stay tuned!

Understanding the Benefits

Benefits

- **Global use:** PID integrations are increasing with funders globally, allowing us to support local and international applications
- **Reduced Researcher Burden:** Enter information once in a single profile such as ORCID, and use it to feed multiple systems
- **Measuring Impact:** Through the network effects of PIDs, awards can be linked to researchers and outputs
- **Measuring Policy Impact:** Can assist with measuring impact and uptake of funder policies such as open access
- **Reuseable with Institutional Systems:** More institutions are also enabling PID Integrations, profile information can be more portable between funders and institutions
- **Useable with Narrative CVs:** While the agencies and other funders are implementing more narrative CVs, they still contain tombstone information as well as some contribution details which can leverage these integrations, and focus researcher time on contextualizing the contributions with their narratives.

Value of PIDs for/in Libraries

There is an impression, I think, that libraries are only focused on collections of publications for the purpose of research.

But, our/*my* job is *<u>also</u>* helping researchers make their work as available as possible to the communities that need to see it.

And, incredibly, it's also my job to help researchers understand the implications of *how* they share their work.

Libraries...

- publish and support journals
- disseminate research via institutional repositories
- advocate for academic integrity and transparency
- facilitate green open access and self-archiving
- help researchers **navigate funder mandates**
- help researchers **navigate open access**
- help researchers **navigate publisher policies**
- help researchers **assert copyright**
- help researchers **understand research data management**
- preserve and disseminate research data
- help their research offices
- help researchers **evaluate publications for submission**
- help researchers **navigate modern scholarly publishing trends**
- **… I could continue but *we do have a time limit***

This work is often facilitated by what's known as Open Scholarly Infrastructure.

Open Scholarly Infrastructure relies on machine-readable metadata.

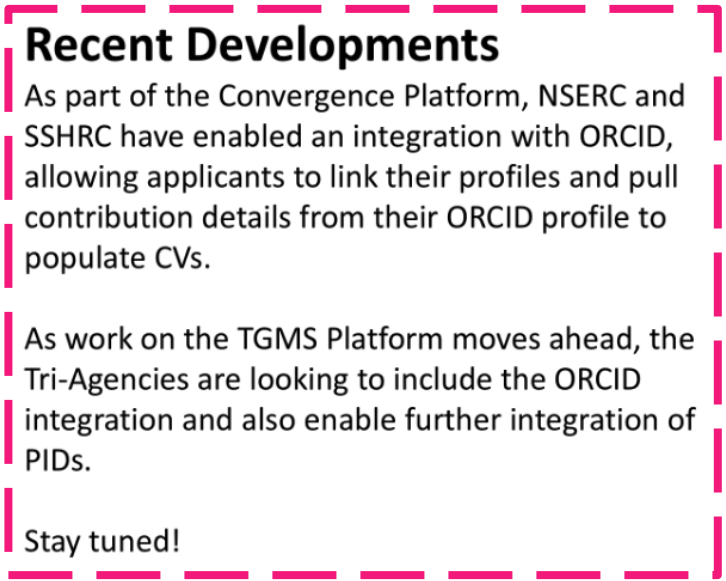
Persistent identifiers are *all about* machine-readable metadata. They expose connections between works, authors, and institutions.

They save time.

For example...

- **w/Dissemination and Publishing**
  - an author is trying to figure out what version of a work they're allowed to share **to meet a funder mandate**…
    - OAWorks API to find collected policies, copyright licenses, and requirements using nothing but a DOI
    - publication deposited to their ORCID profile automatically
      - institution can know they published
      - we can push records upstream for open versions
  - a hosted journal wants to link a dataset and funding metadata to their published articles for downstream metadata collection, we leverage Crossref, ROR, and the funder registry

For example...



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Stay tuned!

An author wants to save time applying for funding because of this ⬅️.

I help them connect their ORCID to Crossref and DataCite so their publications automatically update with DOI metadata whenever and wherever they publish.

For example...

- **w/Bibliometrics**
  - PIDs support the consistent organization of metadata that is used for bibliometric analysis.
  - PIDs support the **accurate and robust measurements of impact indicators** through the disambiguation of authors, institutions, publication destinations, works, etc.
  - For example, the use of DOIs helps with everything from measuring raw counts of works at institutional or author levels, or even tracking co-citations and collaboration patterns.

For example...

- **w/Collections**
  - the purpose of **collections analysis** is to ensure that library collections correspond to the needs of the institution's research community through careful evaluation of usage, costs, and publication trends.
  - but, collections analysis projects **are only as good as the underlying metadata**, such as ISBNs, ISSNs/eISSNS, DOIs, and standardization of publisher names, journal titles, and the like.
  - **PIDs facilitate consistent metadata and identification.**
  - PIDs and open scholarly infrastructure facilitate the distribution and processing of institutional, funder, publisher, and author metadata.

Believe it or not, librarians spend a lot of time pushing metadata around. We love standards. We love accuracy. We love metadata hygiene.

And, especially, we love it when the infrastructure that facilitates this work is open and not-for-profit instead of expensive and proprietary.

PIDs saturate the drinking water of scholarly publishing. Librarians *directly support* researchers in this space. Libraries don't just lead the horse to water, we help maintain the stream.

Libraries...

- ↳ actively contribute (code, documentation, etc.) to projects
- ↳ also contribute *financially* to open scholarly infra via SCOSS
- ↳ support publications/editors/authors to insure metadata quality
- ↳ work with consortium and other such bodies to provide stewardship, guidance, expertise, and support for open scholarly infrastructure
- ↳ host platforms, manage integrations, and accommodate development
- ↳ … *variations on a theme*

PIDs are open scholarly infrastructure. PIDs are *explicitly* tied modern scholarly communication. PIDs allow us to see and explore the connective tissues of research and "impact".

And supporting scholarly communication is, it turns out, a thing that libraries are hugely invested in.

PIDs Help Facilitate...

- ↳ library support for publishing
- ↳ library support for researchers dissemination and discovery
- ↳ evaluations of library collections for propriety
- ↳ evaluations of "impact" for faculty publications
- ↳ metadata and information sharing between a wide variety of software and platforms used for anything from citation management software, to repositories, researcher profiles, funding applications, academic integrity, to exposing that work in research management systems and records management

Value of PIDs for Research Offices

Robyn Nicholson
Strategic Projects Manager, Office of the Vice-President (Research)

Use Case: Institutional Research Activity Data

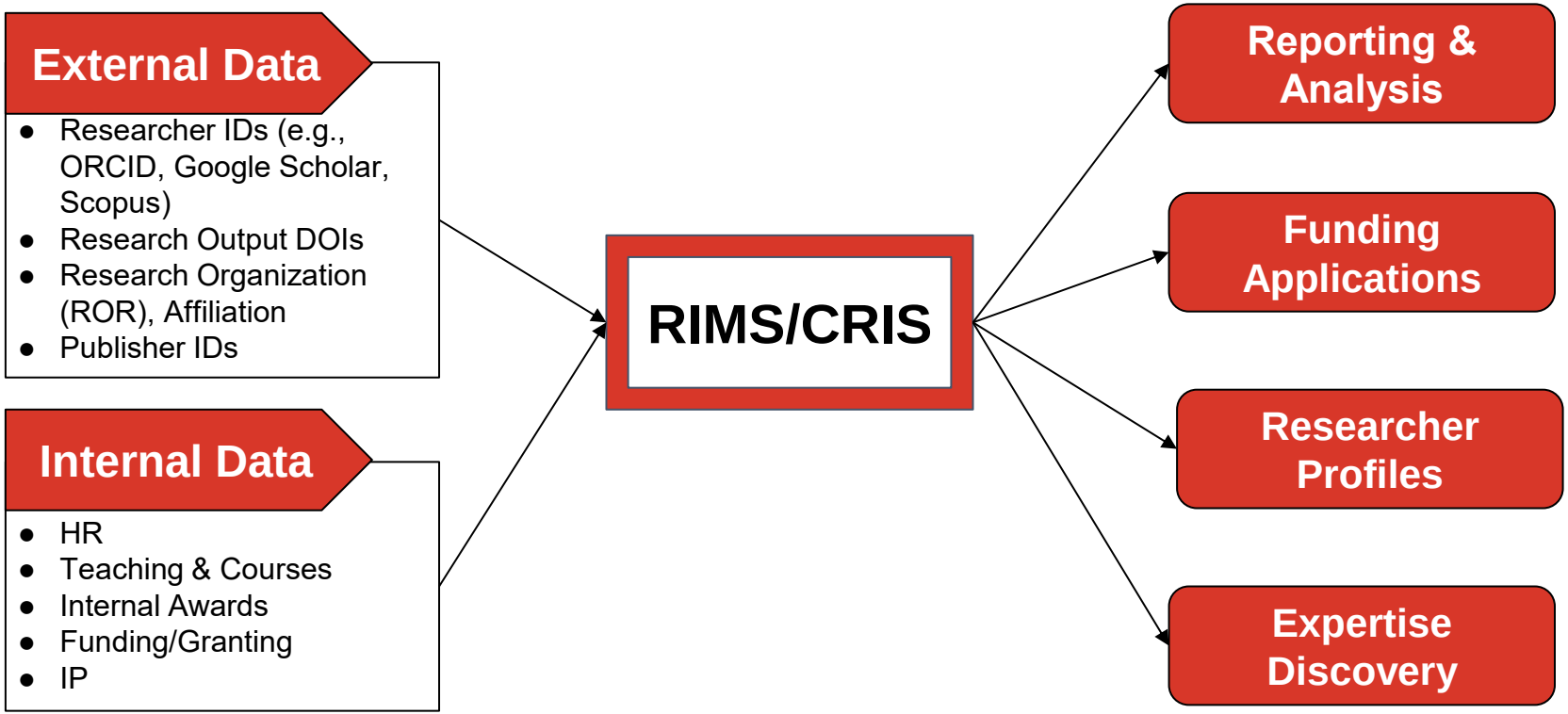
Institutional Needs

- Research office needs **comprehensive, current**, and **accurate** research activity data
- Researchers need **multiple CVs** for various funding applications, tenure and promotion.
- Institution as a whole needs to keep pace with global movement toward **open scholarly infrastructure**.

Solution Criteria

1. Collects **information about all research activity**.
2. Allows researchers to **enter all CV information in one place**.
3. Enables **interoperability** with open scholarly infrastructure.

Research Info Management Powered by PIDs



Strategic Alignment & Collaboration

OVPR

Increased **efficiency**, visibility, competitiveness.

Researchers

Centralized entry of information to satisfy multiple requirements.

Libraries

Participation **in open scholarly infrastructure**, improved **bibliometrics**.

Communications & Marketing

Enhanced **discoverability**, **increased traffic** to UNB website.

Strategic Objectives: *UNB Toward 2030 & Strategic Research Plan*

- **International recognition** of strength and expertise of UNB research/researchers.
- **Expanded reach** and **global engagement**, increasing and **enhancing partnerships** to boost collaborative research.
- Streamlined **ongoing assessment** of research objectives.

Questions/Discussion