



The Impact and Value of Persistent Identifiers

What problems would PID implementation in Canada address?

Persistent identifiers (PIDs) are fundamental building blocks for the digital research infrastructure of the future. Functioning as both a unique label for and a long-lasting link to a person (researchers), place (organizations), or thing (e.g., publications), PIDs disambiguate and connect research entities, making them critical to the success of the Canadian research ecosystem.

In a PID-optimized world, metadata about researchers, their organizations, and their outputs would be captured as early as possible and would flow seamlessly between software systems minimizing manual information entry and maximizing opportunities for it to be reused. While PIDs and their metadata are used in many Canadian research organizations, they are not yet ubiquitous and have not been adopted or implemented consistently. Their full benefits are yet to be realized.

Discussions with key research stakeholders across Canada identified several problems that could be addressed by the widespread adoption and implementation of PIDs nationally across all researchers and organizations. A national approach to PIDs can also help address inequities in Canada — resulting from differences between disciplines, language, geography, institution type, access to resources, etc. — by giving all stakeholders an equal voice in decision-making.

Researchers spend too much time on administrative tasks and too little on their research: Estimates suggest researchers can spend as little as [17% of their time doing research](#). For example, the time they spend rekeying the same information into systems has been [estimated to waste 55,000 researcher days a year in the UK alone](#). By enabling data to be entered once and reused across systems, PIDs can remove much of this effort, freeing up time for actual research.

“You can’t be FAIR without PIDs”: PIDs are integral to the [FAIR principles](#) which, in turn, are an essential component of open science — including the [Canadian government’s 2020 Roadmap for Open Science](#) (Principle Two: Transparency). National PID adoption will ensure that Canadian research data are Findable, Accessible, Interoperable, and Reusable.

Demonstrating ROI in research is challenging: Across the research ecosystem, organizations need to demonstrate the return on investment of the projects they support. PIDs facilitate this by making connections between researchers, their organizations, grants, and outputs.

The evaluation process for grants (like the CCV) and for promotion/tenure is “detested and a huge administrative burden”: PIDs could reduce this burden if implemented in research administration systems by storing, maintaining, and pulling data for evaluation from ORCID.

Research analysis (especially over time) is difficult: Keeping track of alumni/awardees’ career paths, outputs, and collaborations is challenging for institutions, funders, and other organizations. Widespread PID adoption will make tracking institutional metrics/connections much easier.



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