Navigating the future of PIDs in scholarly publishing

PIDs in research workflows

Alice Meadows, Cofounder, MoreBrains Cooperative
“A PID is a digital identifier that is **globally unique, persistent, machine resolvable**, has an associated **metadata** schema, **identifies** an entity and is frequently used to **disambiguate** between entities.”

US Department of Energy’s Office of Science and Technical Information
Some examples of research workflow challenges

- Researchers spend too much time on administrative tasks and too little on their research.
- Demonstrating ROI in research is challenging.
- The research evaluation process for grants, and for promotion and tenure, is “detested and a huge administrative burden”.
- Conducting research analysis — especially over time — is difficult.
PID\textsuperscript{s} can help us address these challenges

Researchers spend too much time on administrative tasks

- PID\textsuperscript{s} allow data to be entered once and reused across multiple systems, freeing up more time for actual research while also improving accuracy

The research evaluation process is burdensome

- PID\textsuperscript{s} can help by storing and maintaining the data used for evaluation in ORCID records, and pulling it directly from there when needed

Demonstrating ROI in research is challenging

- PID\textsuperscript{s} enable reliable connections between researchers, their organizations, grants, and outputs

Conducting research analysis — especially over time — is difficult

- Tracking those metrics and connections over time will be much easier if PID\textsuperscript{s} are widely adopted
Example of a PID solution to a research workflow problem

“Before using ORCID, an average application used to take a few weeks; formatting took time, getting the publications right took many days of work. If I want to put in an ARC [Australian Research Council] grant now and include all of my research track record, it’s sitting there and ready to reuse and is being continually updated. This saved me 3-4 days per grant application - the difference in workload was staggering!”

Joe Shapter, Pro-Vice-Chancellor, University of Queensland, Australia
Some examples of research workflow opportunities

- Making data FAIR
- Better support for collaboration
- Improving attribution and recognition
- Making research more diverse, equitable, and inclusive
PIDDs can help us benefit from these opportunities

Making data FAIR
- You can’t be FAIR without PIDDs! PIDDs and their metadata underpin many of the FAIR principles

Better support for collaboration
- PIDDs enable reliable connections between researchers, their organizations, grants, and outputs

Improving attribution and recognition
- PIDDs help ensure credit for the right people, organizations, and more (funders, institutions, equipment and instruments, archives, etc)

Making research more diverse, equitable, and inclusive
- Open PIDDs are available to everyone, for example, through open APIs and metadata
Example of a PID-enabled opportunity

Percentage of global /Irish co-authorships - powered by PIDS!
Priority entities for PIDs

- Research outputs (DOIs, eg, Crossref and Datacite)
- Researchers and contributors to research (ORCID)
- Research projects (eg, Research Activity Identifier - RAiD)
- Research institutions, funders, and other organizations (eg, ROR)
Which PID(s) should your organization use?

### PID selection matrix developed for CRKN/DRA-led national PID strategy for Canada project (will be made openly available)
PID-optimized research cycle

- **Open**: Metadata can move from one system to another
- **Efficient**: Automated movement of information results in complete and timely records
- **Trackable**: Links between PIDs enable connections to be analysed
- **Persistent**: A social rather than technical construct, requiring community/organizational investment by
  - Funders
  - Research institutions
  - Publishers


[https://resources.morebrains.coop/pidcycle/](https://resources.morebrains.coop/pidcycle/)

[https://doi.org/10.5281/zenodo.7085489](https://doi.org/10.5281/zenodo.7085489)