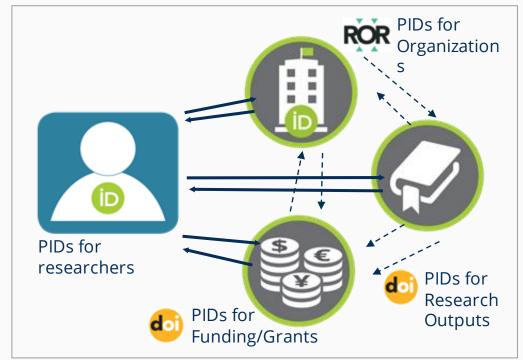


Persistent <u>ID</u>entifiers In the Research Lifecycle

NASEM Workshop Session IV – Research Results: Findability, Transparency, Accessibility 1 Dec 2023

Persistent identifiers (PIDs) and their associated metadata are the building blocks of open research infrastructure.

- PIDs enable entities in the research ecosystem (people, places and objects) to be uniquely identified and connected, to create reliable links between them.
- When using PIDs, metadata about organizations, people and objects flows reliably between systems/platforms, forming the building blocks of an open research infrastructure.





Researcher's View of the Research Lifecycle

4. Research design Researcher to develop research design, metadata model and experimental protocol. 3. Submit Data Management Plan Researcher to develop and submit DMP. use DMP-ID in subsequent reporting. 2. Register Grant Funder to register grant and assign Grant ID, provide instruction for usage.

1. Grant Application

Researcher to use relevant PIDs (team member, affiliation, funder) in the grant application process.

5. Experiment conducted

Researcher to conduct experiments proposed in pre-registration according to protocol.

Research code, data, other outputs deposited

Researcher to deposit protocols, data, conference posters, etc.

7. Preprint submitted

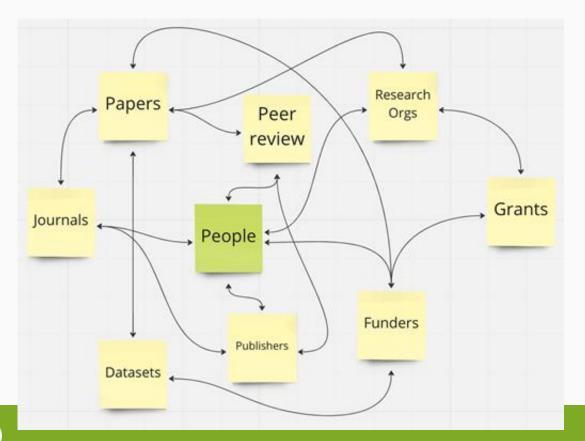
Researcher to share manuscript on preprint server.

8. Research article published

6

Researcher to select appropriate publishing channel and submit manuscript to journal, journal to register articles and submit metadata to Crossref

Goal: An Integrated Research Data Ecosystem



- Better tracking of research outcomes
- Accurate attribution and enhanced discoverability of awards and awardees
- Reduced administrative burden for both funder staff and researchers
- Alignment with FAIR Data Principles and Open Research practices

PID-enabled workflows — What should funder's do?



- Collect ORCID IDs for reviewers and applicants
- Collect ROR IDs for organizations
- Pre-populate applications using ORCID profiles

Grant /Application /Review



Write grant awards to awardees' ORCID records





Announcement

Project reporting and evaluation

Output Sharing

Grant Award

/Registration

Require awardees to include grant DOIs in funding acknowledgements





Require awardees to include DOIs of research outputs in reports

Make use of open PID metadata to track research outputs and aggregate data



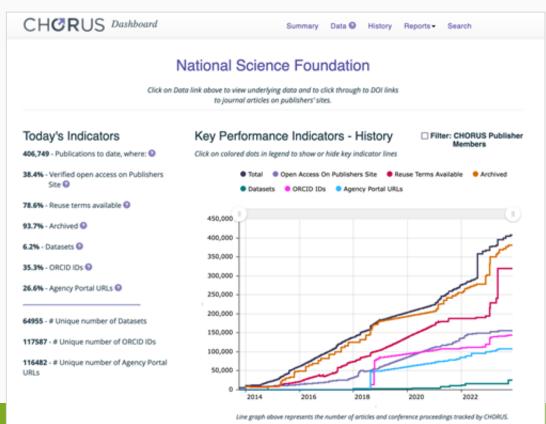


NIH and other agencies are making good progress adopting PIDs in the Biosketch and Current/Pending Support forms

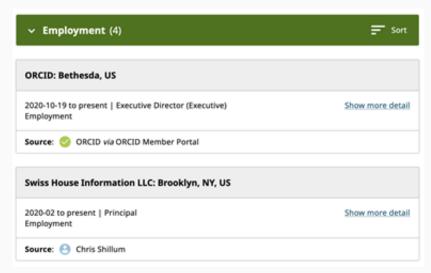


CHORUS provides public access compliance dashboards

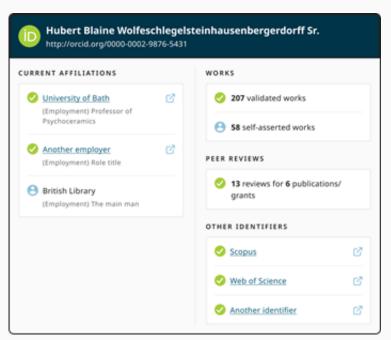
- A perfect example of the insights and analysis that can be built on PID-enabled metadata
- Independent non-profit organization
- Consumes PIDs and metadata from Crossref and ORCID
- Identifies articles and data reporting on agency's funded research
- Helps researchers maintain compliance with funder requirements whilst minimizing researcher compliance efforts



We're working hard to highlight trust markers in ORCID records



New source indicators in ORCID records



Trust summary pilot for review workflows



Thanks

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