PIDs Toolkit for Librarians and Data Professionals

FAIR Facilities and Instruments Workshop

NSF National Center For Atmospheric Research - Boulder, Colorado

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Who are we?

Moira Downey
Interim Director, Research
Facilitation Service
NC State University Libraries

Kassidy Hof-Mahoney
Open Science Librarian
Florida State University
Libraries

Lauren Phegley
Research Data Engineer
University of Pennsylvania
Libraries

Sarah Siddiqui
Reproducibility Librarian
University of Rochester
Libraries

Motivation and Research Questions

- Attended the second FAIR Facilities and Instruments workshop in Tallahassee
- Motivated to evaluate the current usage of PIDs for instruments/facilities at their institutions for supporting their researchers
- Broad research questions:
  - How familiar are our researchers with PIDs for instruments and facilities?
  - For users who are familiar with PID for instruments and facilities, what are the factors inhibiting usage?
  - What is the local resource investment required for implementing or improving PIDs for instruments and facilities?

Additional Questions <We Are Curious About>

- For those who already use instrument and facility PIDs:
  - What are the motivations for using PIDs?
  - What is the frequency of use? This can be in the PID creator role or a researcher who cites the PID.
  - What role do you play in using PIDs? Creator, metadata editor, citator?
  - Did you create or request the PID?
  - Where did you learn about instrument and facilities PIDs?
  - If you created a PID for an instrument or facility, what is your experience of others reuse/use of the PID?
  - What would make PIDs for instruments or facilities easier to use? Examples include: integration w/ existing systems, training, scholarly society adoption

- For those who do not use PIDs:
  - Would you cite a facility or instrument? If not, why?

- For administrators:
  - Do you know about PIDs for facilities and instruments?
  - Are you aware of the benefits they bring?

Initial work: Literature Review

Macgregor, G., Lancho-Barrantes, B. S. and Pennington, D.R. "**Measuring the Concept of PID Literacy: User Perceptions and Understanding of PIDs in Support of Open Scholarly Infrastructure**" Open Information Science, vol. 7, no. 1, 2023, pp. 20220142. https://doi.org/10.1515/opis-2022-0142

- Perceived that there is a hurdle in implementing PIDs, but positive ideas about their use
- People knew that the PIDs that do stuff but they weren't sure what
- A good reminder to emphasize what PIDs do when doing education
- No connection between computer knowledge and and PID literacy (so we don't need to use computer knowledge as a baseline)
- We can connect some of their research questions to our questions
- A good idea to collect this data across different populations

Ongoing work: Other Resources

Johnson, A., Julian, R., Meyernik, M. Mundoma, C., Murray, M., Ranganath, A., Stossmeister, G. **Collaborative Research: Cross-Cutting Improvements: FAIR Facilities and Instruments: Enabling transparency, reproducibility, and equity through persistent identifiers.** NSF Awards 2226396, 2226397, 2226398

- Looked through full question bank that informed focus group effort run by FAIROS Facilities and Instruments group
- Understood that our project is coming at this information from a slightly different angle
- Wanted to make sure whatever we were asking was complementary to the work the FAIROS Facilities and Instruments group had already done

Ongoing work: Other Resources

Taylor, Shawna, Alicia Hofelich Mohr, Jonathan Petters, Jake Carslon, Lizhao Ge, Joel Herndon, Wendy Kozlowski, Jennifer Moore, and Cynthia Hudson Vitale. **Realities of Academic Data Sharing (RADS) Initiative: Research Methodology 2022−2023 Surveys and Interviews.** Washington, DC: Association of Research Libraries, January 2024. https://doi.org/10.29242/report.radsmethodology2023.

- Realities of Academic Data Sharing (RADS) Initiative
- Grant-funded research into details related to research data sharing support services and practices, and their corresponding expenses
- Surveys of and interviews with institutional administrators and funded researchers
- Takeaway: a great resource and a project we will continue to follow, but likely too granular for our work in this context

Our Approach: Creating a Survey

- A survey that could be separately administered at our institutions
- We brainstormed questions and decided to create two surveys to learn:
    - Researchers' awareness of PIDs
    - Instrument maintainers resource needs
- Some of the questions can be tailored for users' institutions, with the goal being to design questions so the survey can easily be adapted by data professionals (librarians, data managers, administrators, etc.) for their organizations

Draft Surveys

- Instrument Maintainers Survey: http://bit.ly/3JNveKx
- Researchers Survey: https://bit.ly/3KgfIqx

PIDs Toolkit for Survey Feedback

Outstanding Questions

- What are the costs associated with implementing and using PIDs in this context?
    - Salary levels
    - Percentage of FTE
    - Subscriptions to DataCite and/or Crossref
    - Other associated costs?
- What would help make this useful for running this survey at your institution?
- What are we missing?

Enhancing Our Approach: The Toolkit

- OSF Project - PIDs Toolkit for Librarians and Data Professionals - https://osf.io/d534r/
- Survey instrument ✅
- Outreach language – how to contextualize the survey ⏳
- Aggregated responses for running at our institutions (from our four institutions to help provide a baseline for comparison at yours) ⏳
- Analysis code ⏳

Next Steps

- Finalize the survey with your input
- Pursue IRB approval or exemption at our local institutions
- Administer the surveys and share findings
- Create educational and outreach materials per user needs as determined from the analysis

How can you provide feedback?

Add comments on the Google doc versions of the survey instruments OR add general feedback as comments on the OSF project

Connecting with Recommendations

- The survey will help us see how many Facility and Instrument maintainers are already implementing the recommendations
- Results will also help us to develop and effectively target outreach and education about PID creation and use
- We want to analyze who isn't using PIDs and the barriers they are experiencing → this will inform future recommendations
- We still have questions about responsibility for creating DOIs
  - Libraries are traditionally the DataCite account owners for a university. Allows for metadata quality control, reduces duplication of effort, and better integration with institutional repositories.
- We agree that PID metadata should be added in repositories. It is more likely to be adopted for institutionally run repositories if we can demonstrate a need for this by Facility and Instrument Providers.

Thank you!

Have questions, feedback or suggestions?
Please leave a comment on our OSF project: **https://osf.io/d534r/**