FAIR Facilities and Instruments: Standardization and Adoption of Persistent Identifiers (PIDs) for Research Facilities and Instruments

Claudius Mundoma (cmundoma@stanford.edu), Stanford University, Claudius Mundoma, Stanford, Renaine Julian, Florida State University, Andrew M. Johnson, University of Colorado Boulder, Greg Stossmeister, NCAR/Earth Observing Laboratory, Matthew Mayernik, NCAR/Earth Observing Laboratory, Aditya Ranganath, University of Colorado Boulder, Zach Chandler, Stanford Data Science Initiative

Persistent Identifiers (PIDs) make data liquid and enable research components to get connected and flow. This flow of information makes it easy to find, cite, and reuse. PIDs promote FAIR practices. Federal funding agencies have now fully embraced use of PIDs as key to the broader efforts of enabling Open Science. In recent decades, as open science has taken on greater visibility within scholarly research institutions, the use of PIDs has expanded significantly to encompass many further purposes and resource types, including data sets, software, laboratory materials, physical samples, and people and organizations. This presentation focuses on a new NSF funded Research Coordination Network (RCN) that focuses on the assignment of PIDs to research facilities and instrumentation. Providing persistent identifiers for scientific instruments could increase transparency, reproducibility and enhance the discoverability of existing instruments, equipment, and data, in turn streamlining scientific research production and open science practices. Equitable access to research resources is premised on the ability of the community to seamlessly search, locate and access these resources. PIDs are key enablers of discoverability of existing research facilities and instrumentation.

This project is facilitating community-wide discussion to encourage broad adoption of best practices in PID implementations knowing that there is no "one-size-fits-all".