



DOIs: A Quick Review

Anne Raugh

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DOIs are Permanent Identifiers (PIDs)

- They *must* resolve to either the resource or a landing page; a landing page *must* exist even if the resource described no longer exists.
- They *were* intended to point to permanent, unchanging things. Now, this is no longer always the case.
- They *were* intended to provide the metadata necessary to cite the resource and resolve to the resource location. *Now*, they are associated with rich metadata that is intended to support findability in addition to citation and resolving to the resource.

The DOI Ecosystem

- The *doi Foundation* (<https://doi.org>) is a not-for-profit organization that is the ISO 26324 Registration Authority.
- It manages the DOI system for the Registration Agencies (RAs)
- Registration Agencies:
 - Serve a specific community or industry
 - Allocate DOI prefixes
 - Register DOIs
 - Define a metadata schema for their own DOIs
 - Manage their own metadata databases
 - Guarantee the continuity of DOI curation for their follow RAs

DataCite Registration Agency

- DataCite is an RA that was formed to create DOIs for research data resources.
- It prioritizes member input and service.
- It now registers DOIs for traditional publications as well as instruments, physical samples, and other non-traditional research resources.
- The DataCite metadata schema has grown by accretion in direct response to community requests.
- DataCite is involved in a number of initiatives to raise the profile of research data output, including the Research Data Alliance, Make Data Count, and F.A.I.R. initiatives.

2 Primary Uses for DOIs

1. Credit

- DOIs make a resource citable, thus enabling the creators to be credited for their contribution to the body of knowledge.
- DOI metadata can record the list of references cited by the resource, so that the resource becomes an integrated part of the body of knowledge.

2. Reproducibility and Reuse

- Citing *all* resources supports reproducibility and replicability of research.
- Known and accessible resources can be reused to increase return on research investment.