

9

Research Data Support: Quick Guide 9

Persistent Identifiers and Data Availability Statements



You may not recognise the term Persistent Identifier (PID), but it's highly likely that you've used them before. If you've ever cited a paper using a DOI (Digital Object Identifier), you've used a PID. PIDs are vital for keeping track of research outputs and linking them together, not only for now but long into the future.

There are persistent identifiers for publications, datasets, software versions, protocols, and even people. This Quick Guide outlines some of the major types, and shows how they can combine to keep individual components of the scholarly record linked together over time.

What, how and who?

So what are PIDs? On the face of it they're pretty simple. A PID is a unique string of characters that looks a bit like an internet address (or URL), and which may or may not do something if you click on it or type it into a web browser. Identifiers also help with Findability, the first and most important of the 'FAIR' principles (see Quick Guides 6 and 8 for more on FAIR.)

PIDs are assigned to publications, data or software when they are deposited into an archive or repository. The repository issues the identifier and controls it, hence the different versions/types. Repositories make a commitment to maintaining the stability of the data and the identifier; part of their role as a trusted place of deposit.

The idea is that even if content moves (which it's bound to do as systems evolve and migrate), the persistent identifier will always resolve (or redirect) to its latest and current location. This helps tie things together – papers, people, datasets, etc – and reduces the risk of links being broken and content becoming irretrievable. This enhances the integrity and longevity of your work, meaning you'll miss out on fewer citations for your work.

Types of Persistent Identifier (and the Edinburgh systems that use them)

- **Digital Object Identifiers (DOIs) – www.doi.org/**
As assigned in Edinburgh Research Explorer, DataShare, Pure and protocols.io.
- **Handles – www.handle.net/**
As assigned in Edinburgh Research Archive¹.
- **ORCIDs – <https://orcid.org/>**
PIDs for people, especially useful when you are not the only Joan or John Smith in the world! Register yourself for free, and link your ORCID to your own outputs in Pure and other systems.

¹ N.B. DOIs are actually based on the Handle System, but with added features which go beyond just resolving identifiers. For more detail, see <https://www.doi.org/factsheets/DOIHandle.html>



Sample Data Availability Statements

Funders have long expected to be credited in scholarly papers as the enabler of the research. More recently it has become common for them to mandate the inclusion of a data availability statement (sometimes also known as data access statements) in the front matter of each paper supported by a grant.

(N.B. Just as managing your research data does not necessarily equate to sharing it, including a data availability statement does not necessarily mean the data is available to just anyone. For sensitive data, your statement may outline the restrictions under which the data are held, as in example 3 below.)

Example statements

1. Open data, stored at the institution:

All data created during this research are openly available from DataShare (the University of Edinburgh Open Access Repository) at: <http://dx.doi.org/10.7488/ds/260>

2. Open data, stored externally:

All data created during this research are openly available from Figshare at: <http://dx.doi.org/10.6084/m9.figshare.1287262>

3. Restricted data, stored externally:

Anonymised interview transcripts from participants who consented to data sharing, plus other supporting information, are available from the UK Data Service, subject to registration, at: <http://doi.org/10.15125/12345>

Contacts and resources

- The Digital Preservation Handbook: Digital Identifiers – Digital Preservation Coalition: www.dpconline.org/handbook/technical-solutions-and-tools/persistent-identifiers
- Tips for writing a dazzling DAS (Data Availability Statement) - Tristan Matthews, Springer Nature: <https://researchdata.springernature.com/posts/tips-for-writing-a-dazzling-das-data-availability-statement>
- Quick Guides on the FAIR principles: www.ed.ac.uk/information-services/research-support/research-data-service/guidance
- Research Data Service website: www.ed.ac.uk/is/research-data-service
- Contact Research Data Support by email: data-support@ed.ac.uk or contact the IS Helpline: is.helpline@ed.ac.uk

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