

An illustration of an iceberg floating in the ocean. The tip of the iceberg is visible above the water surface, while the much larger, submerged part is below. The water is a deep blue, and the sky is a light, hazy blue. The iceberg is rendered in a low-poly, geometric style with various shades of blue and white.

Publishing your data

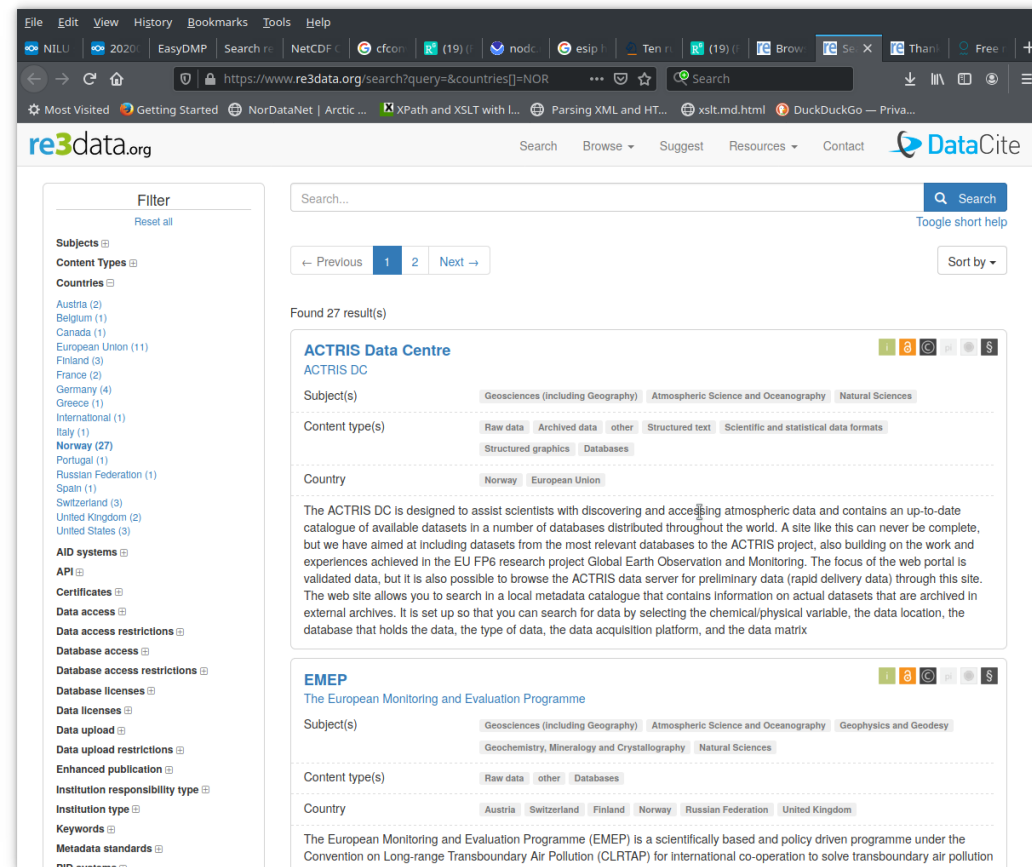
Øystein Godøy and Markus Fiebig

Outline

- Mandated and long term archives (Øystein)
- Data publications (Øystein)
- PID (Explicit mention DOI) (Øystein)
- Data policies / Licensing (Markus)
- Tracking usage (using DOI) (Markus)
- Repositories: (Markus)
 - NorDataNet (distributed network of data centres)
 - NIRD RDA
 - GAW repositories
 - Repositories for model data
 - Figshare

Mandated and long term archives

- Mandated archive
 - An archive that has data management as part of the mandate
- Long term archive
 - An archive that has long term funding and mitigation procedures established
- NorDataNet connects existing mandated data archives with long term commitment
- Always choose a mandated archive for your data deposit
- Services offered by the archives vary, but always select one supporting Persistent Identifiers
- For overview of data centres, check
 - <https://www.re3data.org/>



The screenshot shows the re3data.org website interface. The browser address bar displays the URL [https://www.re3data.org/search?query=&countries\[\]=NOR](https://www.re3data.org/search?query=&countries[]=NOR). The page features a search bar, navigation links, and a filter sidebar on the left. The main content area displays search results for 'ACTRIS Data Centre' and 'EMEP'. The 'ACTRIS Data Centre' result includes filters for Subject(s), Content type(s), and Country, along with a descriptive paragraph. The 'EMEP' result also includes filters for Subject(s), Content type(s), and Country, and a brief description.

What is a data paper?

A data paper is a peer reviewed document describing a dataset, published in a peer reviewed journal. It takes effort to prepare, curate and describe data. Data papers provide recognition for this effort by means of a scholarly article.

<https://www.gbif.org/data-papers>

Data papers explained

...

Unlike a conventional research article, the primary purpose of a data paper is to describe data and the circumstances of their collection, rather than to report hypotheses and conclusions.

...

<https://www.gbif.org/data-papers>

Why publish data papers?

- By publishing a data paper, you will:
 - Receive credit through indexing and citation of the published paper, in the same way as with any conventional scholarly publication, offering benefits to authors in terms of recognition and career building
 - Increase the visibility, usability and credibility of the data resources you publish
 - Track more effectively the usage and citations of the data you publish.

<https://www.gbif.org/data-papers>

Data publishing and papers

- I. Prepare and publish data through a mandated archive
 - I. Remember to get a DOI!!
- II. Write a data paper
 - I. Cite your datasets using the provided DOI
- III. Write your scientific paper
 - I. Cite your data paper describing the context of the data

Persistent Identifiers

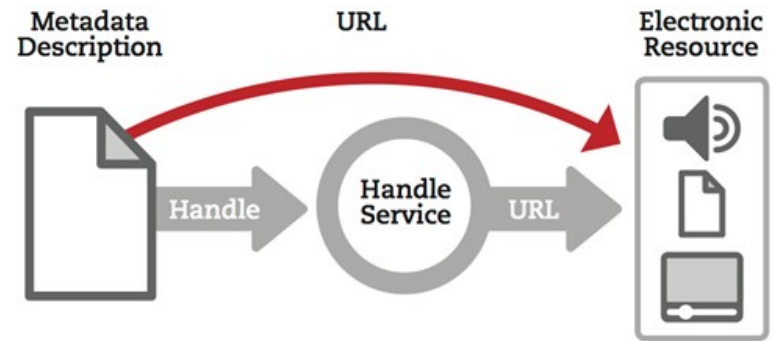
- A persistent identifier is a long-lasting reference to a digital resource.
- An identifier is a label which gives a unique name to an entity: a person, place, or thing.
 - Unlike URLs, which may break, a persistent identifier reliably points to a digital entity.
 - An ORCID iD is an example of a persistent identifier for a person.

<https://support.orcid.org/hc/en-us/articles/360006971013-What-are-persistent-identifiers-PIDs->

Different PID types

- There are different PID types for different kinds of resources.
- In the current research environment we most commonly see two varieties:
 - those for objects
 - publications, data, software
 - such as URNs, DOIs, ARKs, Handle
 - those for people
 - researchers, authors, contributors
 - such as ORCIDs, ISNIs

<https://www.openaire.eu/what-is-a-persistent-identifier>



PID schemes

- Digital Object Identifier (DOI)
 - DOIs are digital identifiers for objects (whether digital, physical or abstract) which can be assigned by organisations in membership of one of the DOI Registration Agencies; the two best known ones are CrossRef, for journal articles and some other scholarly publications, and DataCite for a wide range of data objects. As well as the object identifier, DOI has a system infrastructure to ensure a URL resolves to the correct location for that object.
- Handle
 - Handles are unique and persistent identifiers for Internet resources, with a central registry to resolve URLs to the current location. Each Handle identifies a single resource, and the organisation which created or now maintains the resource. The Handle system also underpins the technical infrastructure of DOIs, which are a special type of Handles.
- Persistent Uniform Resource Locator (PURL)
 - PURLs are URLs which redirect to the location of the requested web resource using standard HTTP status codes. A PURL is thus a permanent web address which contains the command to redirect to another page, one which can change over time.
- Universal Resource Name (URN)
 - URNs are persistent, location-independent identifiers, allowing the simple mapping of namespaces into a single URN namespace. The existence of such a Uniform Resource Identifier does not imply availability of the identified resource, but such URIs are required to remain globally unique and persistent, even when the resource ceases to exist or becomes unavailable. The URN term is now deprecated except in the very narrow sense of a formal namespace for expressing a Uniform Resource Identifier.

<https://www.dpconline.org/handbook/technical-solutions-and-tools/persistent-identifiers>

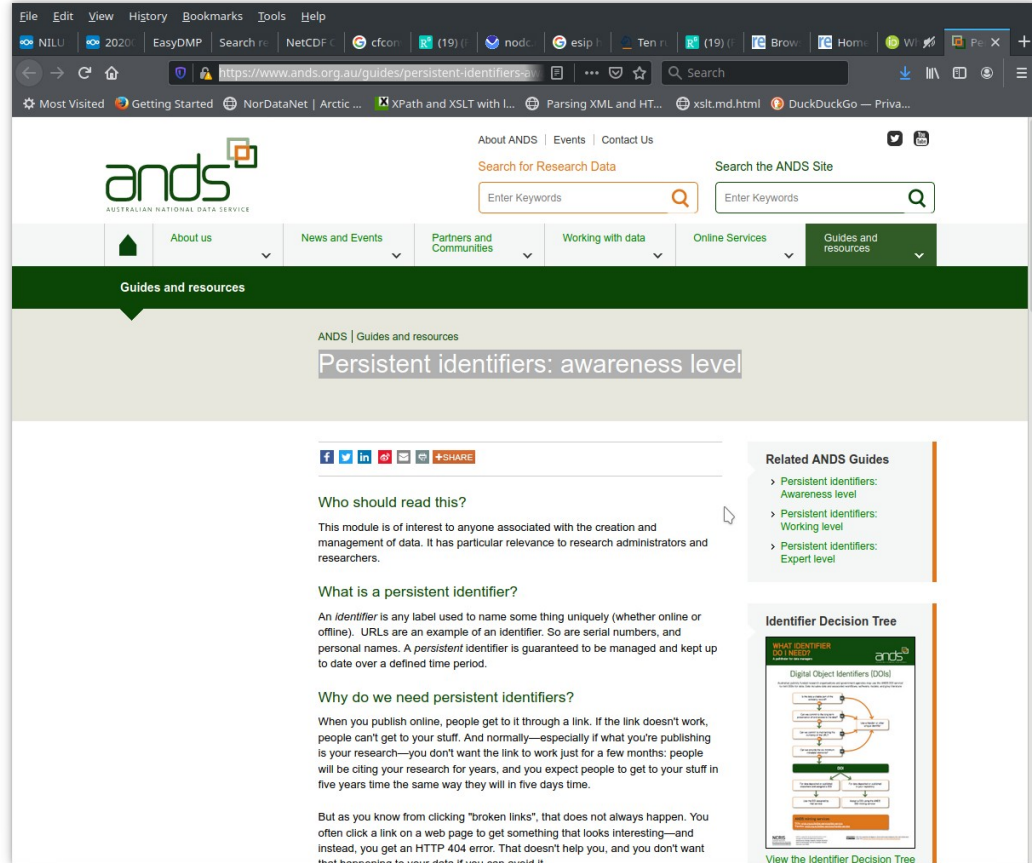
Choosing a Persistent Identifier Scheme

- Advantages
 - Critically important in helping to establish the authenticity of a resource.
 - Provides access to a resource even if its location changes.
 - Overcomes the problems caused by the impermanent nature of URLs.
 - Allows interoperability between collections.
- Disadvantages
 - There is no single system accepted by all, though DOIs are very well established and widely deployed.

<https://www.dpconline.org/handbook/technical-solutions-and-tools/persistent-identifiers>

Persistent identifiers: awareness level

- Further reading on persistent identifiers from Australian National Data Service (ANDS)
 - <https://www.ands.org.au/guides/persistent-identifiers-awareness>



The screenshot shows a web browser displaying the ANDS (Australian National Data Service) website. The page is titled "Persistent identifiers: awareness level" and is part of the "Guides and resources" section. The page content includes a navigation menu, a search bar, and a list of related guides. The main content area is titled "Who should read this?" and "What is a persistent identifier?".

Who should read this?
This module is of interest to anyone associated with the creation and management of data. It has particular relevance to research administrators and researchers.

What is a persistent identifier?
An *identifier* is any label used to name some thing uniquely (whether online or offline). URLs are an example of an identifier. So are serial numbers, and personal names. A *persistent identifier* is guaranteed to be managed and kept up to date over a defined time period.

Why do we need persistent identifiers?
When you publish online, people get to it through a link. If the link doesn't work, people can't get to your stuff. And normally—especially if what you're publishing is your research—you don't want the link to work just for a few months: people will be citing your research for years, and you expect people to get to your stuff in five years time the same way they will in five days time.

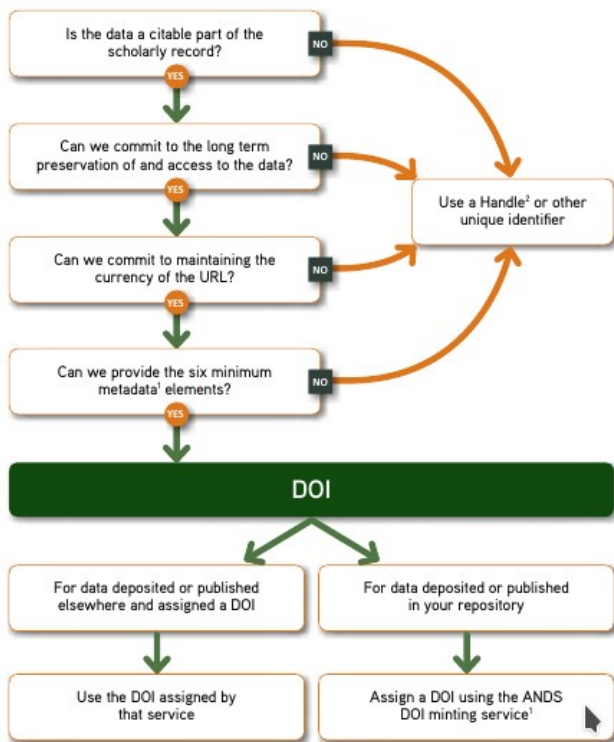
But as you know from clicking "broken links", that does not always happen. You often click a link on a web page to get something that looks interesting—and instead, you get an HTTP 404 error. That doesn't help you, and you don't want that happening to your data, if you can avoid it.

Related ANDS Guides

- > Persistent Identifiers: Awareness level
- > Persistent Identifiers: Working level
- > Persistent Identifiers: Expert level

Identifier Decision Tree

View the Identifier Decision Tree



<https://www.ands.org.au/guides/persistent-identifiers-awareness>