

Australian Research Data Commons

Findable #2

FAIR Data 101 virtual course Webinar 2

PRESENTED BY

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Welcome to FINDABLE webinar #2

Goto webinar chat window for questions or tech issues today

Slack channels

#introductions find your equivalent at another institution; add some emoji reactions! **#general** questions or comments for everyone

Twitter: #FAIR101 #ARDCtraining

tiny.cc/code-conduct



Findable #2 overview

- 1. Metadata & its role in making data findable
- 2. Rich metadata for research datasets
- 3. Research Data Australia
- 4. Discovery platforms
- 5. FINDABLE: Q+A
- 6. Activities, quiz and community discussions



FAIR principles to cover today

- F2. Data are described with rich metadata
- F3. Metadata clearly and explicitly include the identifier of the data they describe
- F4. (Meta)data are registered or indexed in a searchable resource







Describing metadata

- structured data about data
- primary tool for finding and retrieving almost anything
- human readable
- machine actionable
- organised in schemas



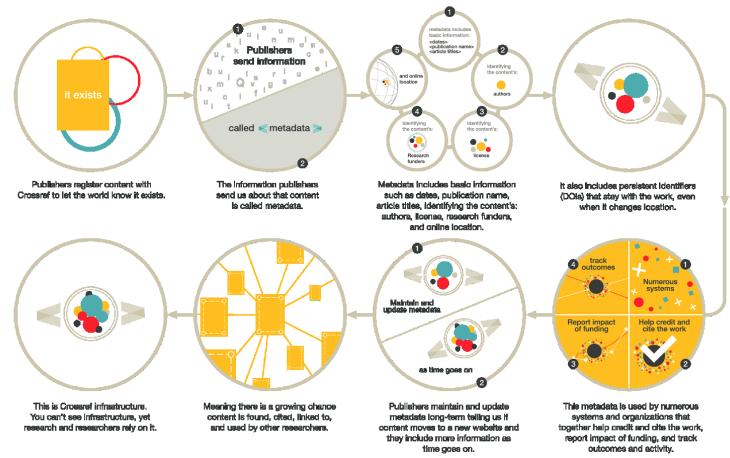
Types of metadata

- descriptive title, description, subject, keywords
- structural assembly, versions, relationships
- administrative repository management + curation
 - technical file format, size, identifiers
 - o access and rights who can access under what conditions
 - preservation information on archiving and dependencies

Tip: Use as a guide to determine quality and completeness



Content Registration: how it works





Examples of metadata schemas

- Dublin Core describing resources on the web
- Schema.org commercial applications
- Crossref research outputs
- Datacite metadata schema describing research data
- Disciplinary metadata
 - Data Documentation Initiative social sciences data
 - Darwin Core biological sciences



A word of warning

- Metadata reflects what humans and machines thought was important to know at the time
- No single standard practice, universal standard or vocabulary
- Methods for searching and terms driven by why people are looking and how the data is stored



Rich metadata examples



The power of FAIR metadata

```
▼<resource xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://datacite.org/schema/kernel-4" xsi:schemaLocation="1"
 http://schema.datacite.org/meta/kernel-4.3/metadata.xsd">
   <identifier identifierType="DOI">10.5072/example-software-2.0</identifier>
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      <nameIdentifier schemeURI="http://orcid.org" nameIdentifierScheme="ORCID">0000-0002-2997-2175/nameIdentifier>
    </creator>
   ▼<creator>
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   ▼<creator>
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    </creator>
   ▼<creator>
      <creatorName nameType="Personal">Kourtchev, I</creatorName>
```



DataCite Metadata Working Group. (2019). DataCite Metadata Schema for the Publication and Citation of Research Data. Version 4.3. DataCite e.V. https://doi.org/10.14454/f2wp-s162

The power of FAIR metadata

```
<givenName>Kevin</givenName>
          <familyName>Lebrigand</familyName>
      </creator>
  </creators>
▼<titles>
   ▼<title xml:lang="en">
          Identification of putative novel specific targets of mir-210 in A549 human adenocarcinoma cells
      </title>
  </titles>
▼<publisher xml:lang="fr">
      Institut de Pharmacologie Moleculaire et Cellulaire (IPMC), CNRS UMR6097, Universite de Nice Sophia-Antipolis, 660 route des lucioles, 06560 Valbonne - Sophia-Antipolis,
  </publisher>
   <publicationYear>2010</publicationYear>
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      <subject schemeURI="http://purl.obolibrary.org/obo/obi" subjectScheme="OBI">Transcription profiling</subject>
      <subject schemeURI="http://www.ncbi.nlm.nih.gov/Taxonomy/" subjectScheme="NCBITaxon">Homo sapiens/subject>
      <subject schemeURI="http://www.ebi.ac.uk/efo" subjectScheme="Mesh">A549</subject>
      <subject schemeURI="http://purl.obolibrary.org/obo/obi" subjectScheme="OBI">DNA microarray</subject>
  </subjects>
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          <contributorName xml:lang="fr" nameType="Organizational">INIST-CNRS</contributorName>
      </contributor>
  </contributors>
  <language>en</language>
  <resourceType resourceTypeGeneral="Text">Experiment report/resourceType>
▼<relatedIdentifiers>
   ▼<relatedIdentifier relatedIdentifierType="URL" relatedMetadataScheme="ISA-Tab" relationType="HasMetadata" schemeType="Text" schemeURI="http://isatab.sourceforge.relatedIdentifierType="Text" scheme
      TAB release-candidate-1 v1.0 24nov08.pdf">
```



Metadata example of HasMetadata from DataCite Metadata Schema Documentation

DataCite Metadata Working Group. (2019). DataCite Metadata Schema for the Publication and Citation of Research Data. Version 4.3. DataCite e.V. https://doi.org/10.14454/f2wp-s162

researchdata.ands.org.au





Research Data Australia

https://researchdata.ands.org.au/two-rocks-moorings-2004-2005/44489

https://doi.org/10.4225/08/50F624325B0A7

Fandry, Chris; Slawinski, Dirk; Pender, Lindsay (2005): Two-Rocks moorings data 2004 - 2005. v2. CSIRO. Data Collection. https://doi.org/10.4225/08/50F624325B0A7



Discovery platforms

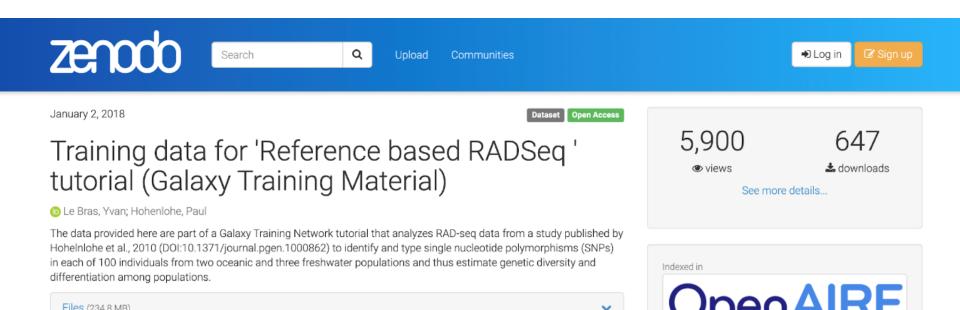


Where to find data repositories





Zenodo.org





Files (234.8 MB)

datadryad.org



ICPSR - https://icpsr.umich.edu

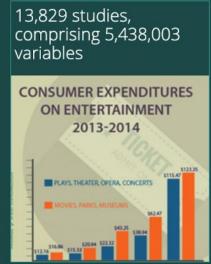
2019 Winner, National Medal for Museum & Library Service

2019 WINNER

Mational Medal

for Museum & Library Service









Australian Data Archive - dataverse.ada.edu.au











Summary - to make data findable

- Use persistent identifiers
- Describe data with rich metadata
- Ensure (meta)data are indexed in a searchable resource



Activities, quiz and community discussions



Findable: activities

Do one or more of the following:

- 1. Read the article that started it all or browse the go-fair website
- 2. Create and link to your ORCiD profile
- 3. Explore repositories for research data

Link to activity worksheet



Quiz

- test your knowledge
- required for the certificate
- open until the end of the course
- can do as many times as you want!

Link to the quiz will be emailed to you individually



Community discussions next week

- Check your calendar invitation
- Zoom try for hard cable connection or mobile network
- any issues please contact <u>nichola.burton@ardc.edu.au</u>
- Stay in touch until then with the
 - o #FAIR101 on twitter
 - #FAIR101 on slack



Feedback









CONTACT

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