Australian Research Data Commons

Findable

#FAIR101 #ARDCtraining Webinar 1

PRESENTED BY

Matthias Liffers

NCRIS National Research Infrastructure for Australia
An Australian Government Initiative

Code of Conduct

To ensure that everyone has a fulfilling learning opportunity, FAIR Data 101 is governed by a Code of Conduct.

You can view the Code at tiny.cc/code-conduct

If you observe a breach of the Code of Conduct, please contact us using the form linked in the Code.

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Today's agenda

- What to expect from the FAIR Data 101 course
- A quick introduction to F, A, I and R
- The drivers of the FAIR Principles
- Findable Part I

Housekeeping

Four modules for each of Findable, Accessible, Interoperable, Reusable

Each module consists

- 2 x 45 minute webinars in week one
- ~30 minutes of activities
- 1 x 50 minute community discussion in week two
- 1 x Quiz

Slack workspace - join at tiny.cc/fair-101-slack

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Slack for newcomers

A Slack workspace allows for many channels

You will automatically join two channels:

- #general
- #introductions

Turn on email notifications at:

- https://fairdata101.slack.com/account/notifications

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Where did this all start?

Wilkinson, M. D. *et al.* (2016) The FAIR Guiding Principles for scientific data management and stewardship. *Sci. Data* 3:160018, https://doi.org/10.1038/sdata.2016.18

More nuanced

More clear

More machines

Findable

Accessible

Interoperable

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Importantly, it is our intent that **the principles apply not only to 'data'** in the conventional sense, **but also to the algorithms, tools, and workflows** that led to that data.

All scholarly digital research objects—from data to analytical pipelines—**benefit from** application **of these principles,** since all components of the research process must be available to ensure transparency, reproducibility, and reusability.

Wilkinson et al.

But

Metadata and data should be easy to find for both humans and computers.

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F1: (Meta)data are assigned **globally unique** and **persistent** identifiers

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It is acceptable for data and its associated metadata to have the same PID

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553721D2E190D

10.4225/06/553721D2E190D

10.4225/06/553721D2E190D

DOI handle

10.4225/06/553721D2E190D

ARDC

10.4225/06/553721D2E190D

Curtin University

10.4225/06/553721D2E190D

Local identifier

Infrastructure *and* governance

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Not all PIDs are created equal

- Researcher ID (owned and controlled by for-profit corporation)
- Author ID (owned and controlled by a for-profit corporation)
- ORCiD (owned and controlled by a member-based nonprofit organisation)

If you liked it then you should've put a PID on it

- People
- Projects
- *Digital* objects
- *Physical* objects
- Equipment

Put a PID on *everything*?

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And a PID for every purpose under heaven

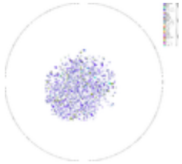
- People - ORCiD
  - https://orcid.org/
- Projects - RAiD
  - https://www.raid.org.au/
- *Digital* objects - DOI
  - https://ardc.edu.au/services/identifier/doi/
- *Physical* samples - IGSN
  - https://ardc.edu.au/services/identifier/igsn/
- Equipment - Handles?
  - Identifiers for Instruments in Australia (i4iOz) https://tiny.cc/i4ioz

SESAR | Sample Profile

https://app.geosamples.org/sample/igsn/IE

Go Back

IGSN: IECUR000V



IECUR000V.classification.png
(primary image)

IGSN: IECUR000V
Sample Name: 206995H
Other Name(s):
Sample Type: Rock Powder
Parent IGSN: Not Provided

Description

Material:	Rock
Classification:	Igneous>Volcanic>Felsic
Field Name:	Edmund Basin
Description:	Very good blocky outcrop of fine-to medium-grained dolerite with lots boulders at the hill slope. Dolerite has variable alteration, some rocks are pale-greenish with chlorite alteration. Dolerite contains very coarse-grained to pegmatitic patches and vein
Age (min):	1079 million years (Ma)
Age (max):	1089 million years (Ma)
Collection Method:	Not Provided
Collection Method Description:	Not Provided
Size:	Not Provided
Geological Age:	1084 ± 5 Ma
Geological Unit:	Not Provided
Comment:	Not Provided

Bruker Avance IIIHD 600MHz NMR spectrometer

Centre for Microscopy, Characterisation & Analysis

Facility/equipment: Equipment

Location

CMCA@Bayliss, (M313), Bayliss Building, University of Western Australia, 35 Stirling Highway, Perth WA 6009 Australia

Overview Fingerprint

Equipments Details

Description

The 5 mm BBFO, 5 mm and 1.7 mm TXI and TBO probes offer either optimum 1H or optimum X sensitivity for a wide range of liquid and solution state homonuclear or heteronuclear experiments with sample volumes of 600 µL, 250 µL and 40 µL for standard tubes. Shigemi tube options are also available at 3 mm and 5mm OD. The spectrometer has variable temperature capabilities for the study of molecular dynamics or reaction kinetics. It can also be employed for diffusion studies (DOSY) and relaxation measurements. The spectrometer is equipped with a SampleCase (24 samples) automatic sample changer.

Research technique

NMR Spectra of Solutions (1D, 2D, 3D) | Biological NMR | Metabolic NMR (targeted and profile studies) | Multinuclear NMR | Nuclear Relaxation and Dynamics | Reaction Kinetics | Diffusion Studies

Contact information

Name: Gareth Nealon
Phone: +61 8 6488 1887
Emails: gareth.nealon@uwa.edu.au
Links: Website, Handle

Equipment hierarchy

Nuclear magnetic resonance
- Bruker Avance IIIHD 600MHz NMR spectrometer

Terms of loan/booking

Available for loan - internal and external

Fingerprint

Bruker Avance IIIHD 500MHz NMR spectrometer

Centre for Microscopy, Characterisation & Analysis

Facility/equipment: Equipment

Location

CMCA@Bayliss, (M313), Bayliss Building, University of Western Australia, 35 Stirling Highway, Perth WA 6009 Australia

Overview Fingerprint

Equipments Details

Description

The Bruker Avance IIIHD 500MHz NMR spectrometer is capable of a wide range of NMR experiments.

Standard operation uses 5 mm BBFO but other options exists for specialist applications including 10mm BB and Dual probe options. The spectrometer is also capable of nuclear relaxation and variable temperature operation to study molecular dynamics or reaction kinetics. It can also be employed for diffusion studies (DOSY) and relaxation measurements using its Diff30 probe. The spectrometer is equipped with a SampleXpress (60 samples) automatic sample changer for medium throughput applications.

Research technique

NMR Spectra of Solutions (1D, 2D, 3D) | Multinuclear NMR | Reaction Kinetics | Diffusion Studies

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Equipment hierarchy

Nuclear magnetic resonance
- Bruker Avance IIIHD 500MHz NMR spectrometer

Terms of loan/booking

Available for loan - internal and external

Fingerprint

What’s next?

Signing up for Community Discussions - every two weeks starting next week

- Tuesdays 10:00 AWST / 11:30 ACST / 12:00 AEST
- Tuesdays 12:00 AWST / 13:30 ACST / 14:00 AEST
- Wednesdays 9:00 AWST / 10:30 ACST / 11:00 AEST

Findability part 2 with Liz Stokes

- Wednesday 12:00 AWST / 13:30 ACST / 14:00 AEST

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