



Australian Research Data Commons

Reusable #7

FAIR Data 101 virtual course
Webinar 7

PRESENTED BY

Liz Stokes from your friendly ARDC skills team

<https://orcid.org/0000-0002-2973-5647>



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Welcome to Reusable webinar #7

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





Reusable

R1. Meta(data) are richly described with a plurality of accurate and relevant attributes

R1.1. (Meta)data are released with a clear and accessible data usage license

R1.2. (Meta)data are associated with detailed provenance

R1.3. (Meta)data meet domain-relevant community standards

Reusable #7 overview

- What aids data reuse?
- Clear and accessible licensing for data
- Detailed provenance
- Domain-relevant community standards
- Reusable: Q+A

What aids data reuse?

- accessible - 'at the click of a button'
- well described - 'does what it says on the tin'
- familiar - 'everybody uses this format'
- easy to cite - 'that's where it came from'
- licensed - 'how you are allowed to use it'



Photo by [Markus Spiske](#) on [Unsplash](#)

Rich description

R1. Meta(data) are richly described with a plurality of accurate and relevant attributes



Photo by Ahsani Putri on Unsplash

Darwin Core

<http://rs.tdwg.org/dwc.htm>

Licensing

R1.1. (Meta)data are released with a clear and accessible data usage license



[attribution needed]

"If you want a culture of..." by opensource.com is licensed under [CC BY-SA 2.0](https://creativecommons.org/licenses/by-sa/2.0/) / A derivative from the [original work](#)

The purpose of attribution is to give credit to the original creator of something you are using. It relates to the “thing” and is a legal requirement of using openly licensed works.

copyright in data... it's complicated

- Australian law doesn't recognise copyright in machine generated data
- Human authorship - demonstrated creativity in selection and arrangement of data
- Corrected, reformed, modelling choices may influence copyright
- Case by case basis
- Rights in data usually rest with the creator



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Example: Australian Ocean Data Network (AODN)

- Dataset: Australian Phytoplankton database (1844 - ongoing) - abundance and biovolume
- Portal licenses all data as CC-BY in [Data Use Acknowledgement](#)
- Full attribution requirements in the [metadata record](#) →

▼ **Resource constraints**

▼ **Commons License**

▼ **Current License**

Jurisdiction:  Attribution

Attribution Constraints

Attribution Constraints

Attribution Constraints

Attribution Constraints

Attribution Constraints

Other Constraints

This is the bibliographic reference for the dataset and this metadata rec Bonham P, Brett S, Brinkman R, Burford M, Clementson L, Coad P, Com Holmes M, Ingleton T, Jameson I, Leterme SC, Lonborg C, McLaughlin J Purcell-Meyerink D, Raes E, Rissik D, Ruszczyk J, Slotwinski A, Swadling Yauwenas R, Zammit A, Richardson AJ (Year), The Australian Phytoplank Network

If data from multiple projects are used, please acknowledge the data pe the custodian information.

If using data from Project 599 the National Reference Stations, Project ! Series (SOTS), please use the following acknowledgement: "Data was s the National Collaborative Research Infrastructure strategy (NCRIS)."

Similarly for Projects 806 and 1066, please use the following acknowledged Great Barrier Reef Marine Park Authority, through funding from the Aus Please acknowledge funding bodies accordingly when using these data. We would also advise the data user to enter into collaboration with the value to the research.

▼ **Resource constraints**

▼ **Legal constraints**

Other constraints

Data access constraints vary with each individual project. Please check

Example: Atlas of Living Australia (ALA)

- Record: [Gymnorhina tibicen](#)
- Data partners license contributing data according to a range of licences
- This image by wingspanner is licensed under [CC-BY-NC 4.0](#)



Reusability in practical terms

R1.2. (Meta)data are associated with detailed provenance

Reusability in practical terms

Choosing a sensor for data collection: DHT11 or DHT22?

- different ranges
- different accuracy
- different sampling rates

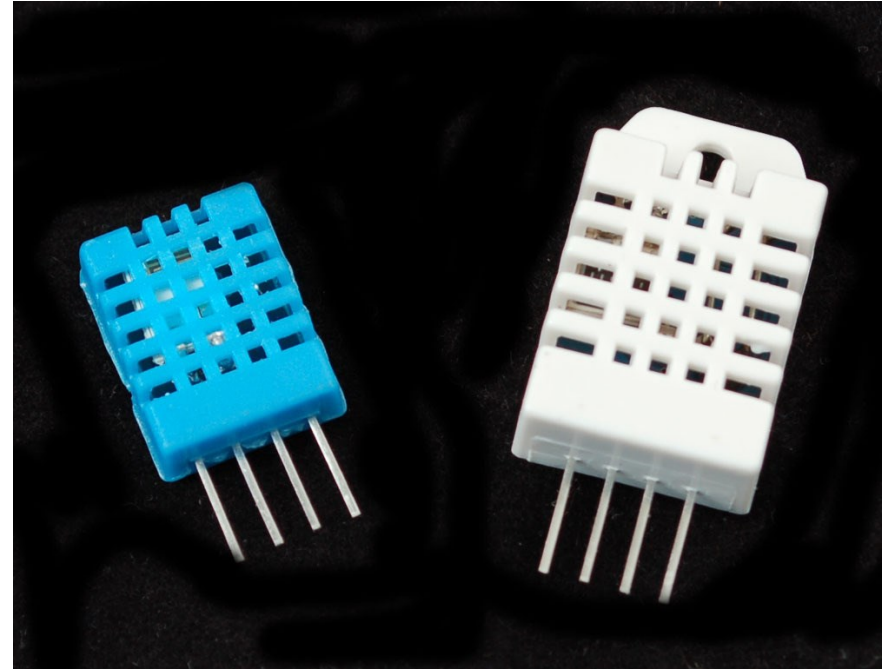
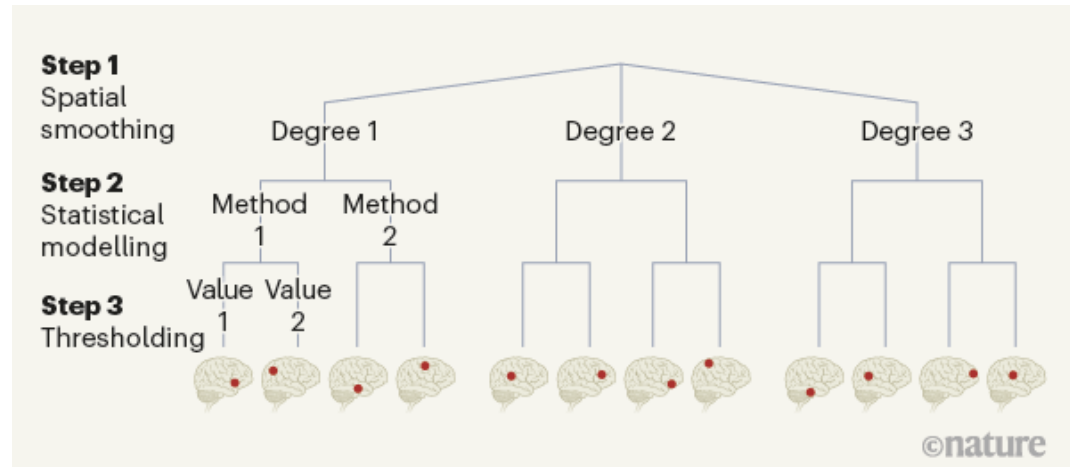


Image from <https://learn.adafruit.com/assets/576>

Translate to research reproducibility

Botvinik-Nezer, R., Holzmeister, F., Camerer, C.F. et al. Variability in the analysis of a single neuroimaging dataset by many teams. *Nature* 582, 84–88 (2020). <https://doi.org/10.1038/s41586-020-2314-9>



Lindquist, M. “Neuroimaging results altered by varying analysis pipelines”, *Nature* 582, 36-37 (2020)
doi: [10.1038/d41586-020-01282-z](https://doi.org/10.1038/d41586-020-01282-z)

Infrastructure choices

R1.3. (Meta)data meet domain-relevant community standards

citation advantage of using a data repository

Colavizza G, Hrynaszkiewicz I, Staden I, Whitaker K, McGillivray B (2020) The citation advantage of linking publications to research data. PLoS ONE 15(4): e0230416. <https://doi.org/10.1371/journal.pone.0230416>



Domain relevant community standards



em+ trolley era
@NIGHTCENDANTS



what do you call these where you're from?



1:20 AM · Jun 15, 2020 · [Twitter for iPhone](#)

20.8K Retweets 19.2K Likes

Zooper Doopers are trending



em+ trolley era
@NIGHTCENDANTS

what do you call these where you're from?



1:20 AM · Jun 15, 2020 · Twitter for iPhone

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Justin Galösi @AndJustinForAll · 12h

Replying to @NIGHTCENDANTS
Shopping cart, roll/bun, chips, freeze pop

21 17 957



princess pisces @lavenderprayers · 8h

I was searching forever for a freeze pop answer LMAOOO I was like wtf is a zooper dooper 😂😂😂👻👻

2 63

1 more reply



jess @loveletterdean · 19h

Replying to @NIGHTCENDANTS
trolley, roll, crisps, ice lolly

1 1 67



alegra b1m @lovelyycharles · Jun 15

Replying to @NIGHTCENDANTS
shopping cart, bread, chips, freezies

29 9 551



eva @avanthonystan · 19h

BREAD?????? THATS NOT BREAD

12 157

5 more replies

Summary - for reusable

- Work out what users need for research data to be reusable
- Decide on the best or easiest metadata to provide provenance
- Use community accepted data and metadata standards
- Clearly define and document metadata models in use
- Choose a licence to apply to data and make it accessible for humans and machines

Feedback



how is this going for you?

Photo by [Wynand van Poortvliet](#) on [Unsplash](#)



CONTACT

Course content: @Liz @Matthias liz.stokes@ardc.edu.au matthias.liffers@ardc.edu.au

Course administration, community groups: @Nichola Nichola.Burton@ardc.edu.au