Towards FAIR principles for Research Software -

Story line

Dr Paula Andrea Martinez
National Imaging Facility (NIF)
p.martinez@uq.edu.au
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National Imaging Facility

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Towards FAIR Principles for Research Software

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Anna-Lena Lamprecht, Leyla Garcia, Mateusz Kuzak, Carlos Martinez, Ricardo Arcila, Eva Martin Del Pico, Victoria Dominguez Del Angel, Stephanie van de Sandt, Jon Ison, Paula Andrea Martinez, Peter McQuilton, Alfonso Valencia, Jennifer Harrow, Fotis Psomopoulos, Josep Ll. Gelpi, Neil Chue Hong, Carole Goble, Salvador Capella-Gutierrez

Affiliations

Utrecht University - The Netherlands, ZBMED Information Centre for Life Sciences - Germany, Netherlands eScience Center - The Netherlands, Dutch Techcentre for Life Sciences (DTL) - The Netherlands, EMBL-EBI - UK, Barcelona Supercomputing Center (BSC) - Spain, L'Institut Français de Bioinformatique (IFB) - France, CERN - Switzerland, National Life Science Supercomputing Center, Technical University of Denmark - Denmark, National Imaging Facility - Australia, Oxford e-Research Centre - UK, Institució Catalana de Recerca i Estudis Avançats (ICREA) - Spain, ELIXIR Hub - UK, Institute of Applied Biosciences CERTH - Greece, University of Barcelona - Spain, Software Sustainability Institute (SSI) - UK, EPCC, University of Edinburgh - UK, University of Manchester - UK.

Special thanks

Anna-Lena Lamprecht

Assistant Professor, Open Science Ambassador & Research Fellow at Utrecht University, NL

https://www.slideshare.net/annalenalamprecht/towards-fair-principles-for-research-software

@al_lamprecht
@UniUtrecht

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FAIR
Findable, Accessible, Interoperable, Reusable

Story line

Disclaimer:
Might be only *fairly* accurate

*OECD Principles and Guidelines for Access to Research Data from Public Funding

DOI: 10.1787/9789264034020-en-fr (2007)

Story line

Minimum requirements to share data

- You have to find them
- You have to be able to access them
- You have to be able to understand them
- *Addition: you have to be able to trust them*

Professor Maryann E. Martone, 2010 - Key goals from the Neuroscience Information Framework

Story line

- G8 Discussed data sharing (2013)
- Lorentz Workshop (2014) Stakeholders meeting

https://www.force11.org/group/fairgroup/fairprinciples (2015)

Findable
Accessible
Interoperable
Reusable

Comment | Open Access | Published: 15 March 2016

The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson, Michel Dumontier, IJsbrand Jan Aalbersberg, Gabrielle Appleton, Myles Axton, Arie Baak, Niklas Blomberg, Jan-Willem Boiten, Luiz Bonino da Silva Santos, Philip E. Bourne, Jildau Bouwman, Anthony J. Brookes, Tim Clark, Mercè Crosas, Ingrid Dillo, Olivier Dumon, Scott Edmunds, Chris T. Evelo, Richard Finkers, Alejandra Gonzalez-Beltran, Alasdair J.G. Gray, Paul Groth, Carole Goble, Jeffrey S. Grethe, Jaap Heringa, Peter A.C 't Hoen, Rob Hooft, Tobias Kuhn, Ruben Kok, Joost Kok, Scott J. Lusher, Maryann E. Martone, Albert Mons, Abel L. Packer, Bengt Persson, Philippe Rocca-Serra, Marco Roos, Rene van Schaik, Susanna-Assunta Sansone, Erik Schultes, Thierry Sengstag, Ted Slater, George Strawn, Morris A. Swertz, Mark Thompson, Johan van der Lei, Erik van Mulligen, Jan Velterop, Andra Waagmeester, Peter Wittenburg, Katherine Wolstencroft, Jun Zhao & Barend Mons - Show fewer authors

Scientific Data **3**, Article number: 160018 (2016) | Cite this article

92k Accesses | **1274** Citations | **1470** Altmetric | Metrics

Wilkinson, M. D. *et al.*The FAIR Guiding Principles f
doi: 10.1038/sdata.2016.18 (2016)

Who talks about FAIR?

"Scientists, scholars, funders and publishers all over the world are coming together to enhance the value of research data by making them FAIR".

Turning FAIR into reality, EC
https://publications.europa.eu/s/m9l4

Findable
Accessible
Interoperable
Reusable

FAIR is an aspiration and spectrum

There are 15 principles that infrastructure needs to support, that libraries need to explain, and that directors need to communicate to make it sustainable and to motivate researchers to use.

Learn more go-fair.org/fair-principles

How do the FAIR principles relate to software?

2018: "Central to the realization of FAIR are FAIR Digital Objects, which may represent data, Software or other research resources."

European Commission, Turning FAIR into reality report (2018)

DOI: 10.2777/1524

What do researchers need to know about FAIR?

terminology

Metadata are locatable and accessible by identifiers.

Accessibility relies on using standard access protocols and have the least restrictive licences.

Data and Software are described using machine and human readable data formats - persistent, standardised and cross-linked.

Carole Globe - INCF, 2019

How do we get the research community to use technology in order to make data and software FAIR?

We need incentives, cultural normalisation and long term investment!

Improving FAIR

~~*“ The work of building communities*~~

takes time, patience, perseverance, and courage*, because this work is about* ***transforming attitudes, behaviors, and policies****. It requires strategies that operate at multiple levels, including the individual, group, and institutional levels.”*

Reference: Kien Lee The Community Tool Box, Chapter 27, section 11

Resources

FAIR and software: an ongoing discussion

Towards FAIR principles for research software (The Netherlands) National eScience Symposium 2019	Five recommendations for FAIR software" at NL- RSE 2019	“FAIR principles for Software” at 2019 Workshop on Sustainable Software Sustainability (WOSSS19)
“FAIR Software” BoF at deRSE 2019	Top 10 FAIR Data & Software Global Sprint, including “10 easy things to make your software FAIR”	“Sharing Your Software – What is FAIR?” at the 2018 American Geophysical Union (AGU) Fall Meeting
“FAIRness assessment for software” at the ELIXIR 2018 BioHackathon	“Making Software FAIR” at the DTL Communities@Work 2018 Conference	TIB Training workshops on FAIR Data and Software “Applying FAIR
Principles to Software” at the 2017 Workshop on Sustainable Software Sustainability (WOSSS17)	CodeMeta Workshop 2016 on The Future of Software Metadata	

FAIR for software has been discussed a lot!

rd-alliance.org/fair-principles-research-software

15th Research Data Alliance
Plenary Meeting
Melbourne Convention and Exhibition Centre, MCEC
18-20
MARCH
2020
MELBOURNE
AUSTRALIA
RDA
RESEARCH DATA ALLIANCE
CSIRO
ARDC
Australian Research Data Commons
#rdaplenary
www.rd-alliance.org

What's next?

Further discussion!

Governance model for the FAIR principles.

Metrics and maturity models for FAIR software.

Agreements on the expected degrees of FAIRness.

Anna-Lena Lamprecht, National eScience Symposium, 2019

The purpose of this presentation was to describe the story line of FAIR for Software. - Paula

But overall to:

Establish a network of networks that are collectively trying to improve transparency, accessibility, quality, and reproducibility of research. - Brian Nosek - OSF

Thanks!

You are welcome to contact me
p.martinez [at] uq.edu.au

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