

EGU2020-17073

<https://doi.org/10.5194/egusphere-egu2020-17073>

EGU General Assembly 2020

© Author(s) 2022. This work is distributed under the Creative Commons Attribution 4.0 License.



## Beyond article publishing - support and opportunities for researchers in FAIR data sharing

**Graham Smith** and Andrew Hufton

Springer Nature, Research Data, United Kingdom of Great Britain and Northern Ireland

([graham.smith@springernature.com](mailto:graham.smith@springernature.com))

Researchers are increasingly expected by funders and journals to make their data available for reuse as a condition of publication. At Springer Nature, we feel that publishers must support researchers in meeting these additional requirements, and must recognise the distinct opportunities data holds as a research output. Here, we outline some of the varied ways that Springer Nature supports research data sharing and report on key outcomes.

Our staff and journals are closely involved with community-led efforts, like the Enabling FAIR Data initiative and the COPDESS 2014 Statement of Commitment<sup>1-4</sup>. The Enabling FAIR Data initiative, which was endorsed in January 2019 by *Nature* and *Scientific Data*, and by *Nature Geoscience* in January 2020, establishes a clear expectation that Earth and environmental sciences data should be deposited in FAIR<sup>5</sup> Data-aligned community repositories, when available (and in general purpose repositories otherwise). In support of this endorsement, *Nature* and *Nature Geoscience* require authors to share and deposit their Earth and environmental science data, and *Scientific Data* has committed to progressively updating its list of recommended data repositories to help authors comply with this mandate.

In addition, we offer a range of research data services, with various levels of support available to researchers in terms of data curation, expert guidance on repositories and linking research data and publications.

We appreciate that researchers face potentially challenging requirements in terms of the 'what', 'where' and 'how' of sharing research data. This can be particularly difficult for researchers to negotiate given that huge diversity of policies across different journals. We have therefore developed a series of standardised data policies, which have now been adopted by more than 1,600 Springer Nature journals.

We believe that these initiatives make important strides in challenging the current replication crisis and addressing the economic<sup>6</sup> and societal consequences of data unavailability. They also offer an opportunity to drive change in how academic credit is measured, through the recognition of a wider range of research outputs than articles and their citations alone. As signatories of the San Francisco Declaration on Research Assessment<sup>7</sup>, Nature Research is committed to improving the methods of evaluating scholarly research. Research data in this context offers new mechanisms to

measure the impact of all research outputs. To this end, Springer Nature supports the publication of peer-reviewed data papers through journals like *Scientific Data*. Analysis of citation patterns demonstrate that data papers can be well-cited, and offer a viable way for researchers to receive credit for data sharing through traditional citation metrics. Springer Nature is also working hard to improve support for direct data citation. In 2018 a data citation roadmap developed by the Publishers Early Adopters Expert Group was published in *Scientific Data*<sup>8</sup>, outlining practical steps for publishers to work with data citations and associated benefits in transparency and credit for researchers. Using examples from this roadmap, its implementation and supporting services, we outline how a FAIR-led data approach from publishers can help researchers in the Earth and environmental sciences to capitalise on new expectations around data sharing.

—

- <https://doi.org/10.1038/d41586-019-00075-3>
- <https://doi.org/10.1038/s41561-019-0506-4>
- <https://copdess.org/enabling-fair-data-project/commitment-statement-in-the-earth-space-and-environmental-sciences/>
- <https://copdess.org/statement-of-commitment/>
- <https://www.force11.org/group/fairgroup/fairprinciples>
- <https://op.europa.eu/en/publication-detail/-/publication/d375368c-1a0a-11e9-8d04-01aa75ed71a1>
- <https://sfdora.org/read/>
- <https://doi.org/10.1038/sdata.2018.259>