Publishing research data via GFZ Data Services

Florian Ott and the team at Section 5.1: Library and Information Services
- Library Shorts – 2024-10-18

Image by: Romolo Tavani/Shutterstock

Accessible „Open" Data

A few words on FAIR

Image from: https://book.fosteropenscience.eu/
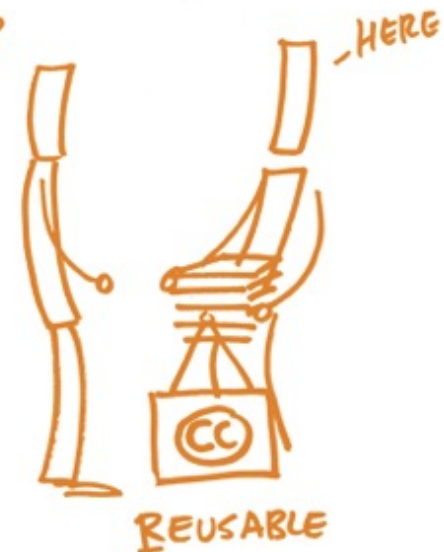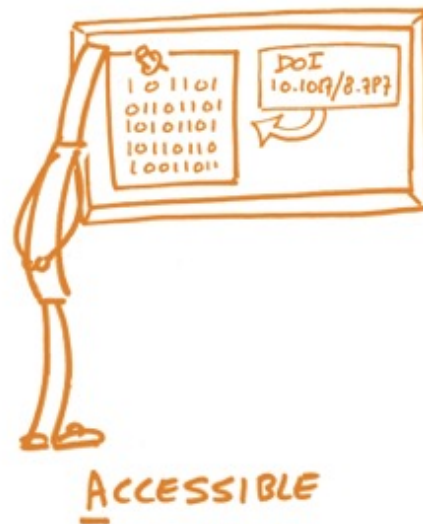
Profile

- Domain repository for the Geosciences since 2006

- DOIs for Data and software

- Data: real-time data streams, tables, maps, model data, …

- Online metadata editor

- Data description templates

- **Data curation by domain scientists**

https://dataservices.gfz-potsdam.de

FAIR data

- International metadata standards (human & machine readable)

- Controlled vocabularies for „rich" metadata

- PIDs ORCID IGSN Crossref Funder Registry doi ROR in prep

- Open Licences for data and software

- OAI-PMH interface

- schema.org → Google Dataset Search

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Supporting tools for data publications

Suggested Table of Contents
1. Licence
2. Citation
3. Data Description
   • Sampling method
   • Analytical procedure
   • Data processing
4. File description
   • File inventory
   • File naming convention
   • Description of data tables
5. References

Online Metadata Editor

• Converts information from researchers to machine-readable metadata in international standards

https://dataservices.gfz-potsdam.de/panmetaworks/metaedit/

Data Description Templates

• Standardised technical data description

• Available in commented and usable versions

https://gfzpublic.gfz-potsdam.de/pubman/item/item_5007103

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Publication instructions

- Guidance on preparing and describing data; description the data/software publication workflow

- Special services:

  – **Timing of data publication**: For most supplementary data to research articles, the publication of the data will be timely correlated with the publication of the article.

  – **Review Links**: Review links show a preview of the future DOI Landing Page with the correct citation (the DOI is already reserved and will not change); for r**estricted data access during the review period of articles**

Quick Start Guide for Data Publications at with GFZ Data Services

Metadata Editor

Data Submission Workflow

Data Files Instructions

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"Data in Review" links

- Link: http://pmd.gfz-potsdam.de/panmetaworks/review/d5e90191aeefd0632ed35813dd442e186ad1187ad892f3d3ff968bd4716eb472/

- Allows access to still unregistered data (for papr review purposes)

- DOI is reserved and citable

- Data can still be changed

- DOI registration when paper is accepted

- Please inform GFZ Data Services when a paper is accepted

- Please send the DOI of the paper to GFZ Data Services

Piwowar and Vision 2013 (https://doi.org/10.7717/peerj.175)

"… studies have found that papers with publicly available datasets receive a higher number of citations than similar studies without available data"

Kratz and Strasser 2015 (https://doi.org/10.1038/sdata.2015.39)

"The production and publication of that data should be recognized as valuable scholarship…"

Trisovic et al. 2021 (https://doi.org/10.3390/data6020015)

"…datasets that had a prior review, we find lengthier descriptions, higher keywords count, increased number of versions, and higher use of optional metadata than in datasets released without review [making] data discoverable across domains"

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GFZ Data Services:

• Trust

• Data curation expertise from domain scientists

• Established RD-Policy at GFZ Potsdam

• Part of NFDI4Earth (NFDI Consortium Earth System Sciences)

Various initiatives tackle new reputation/recognition mechanisms

Contact us via: datapub@gfz-potsdam.de