



Universität Hamburg
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CENTER
FOR SUSTAINABLE
RESEARCH DATA MANAGEMENT



Research Data Management

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Motivation

Good Scientific Practice and Research Data Management

- Quality assurance of scientific work
- Guidelines for ensuring good scientific practice and behavior in case of scientific misconduct
- What are my tasks?
- What do I have to do personally?
- What am I responsible for?
- How do I do it?

What do we mean by research data?

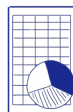
All data and materials used in research:

Measurement data, laboratory values, audio, video, texts, surveys, images, objects from collections, samples, algorithms, software, 3D data, scans, simulation data...

All data types, file formats, kilobyte to exabyte...



$$f(x)$$

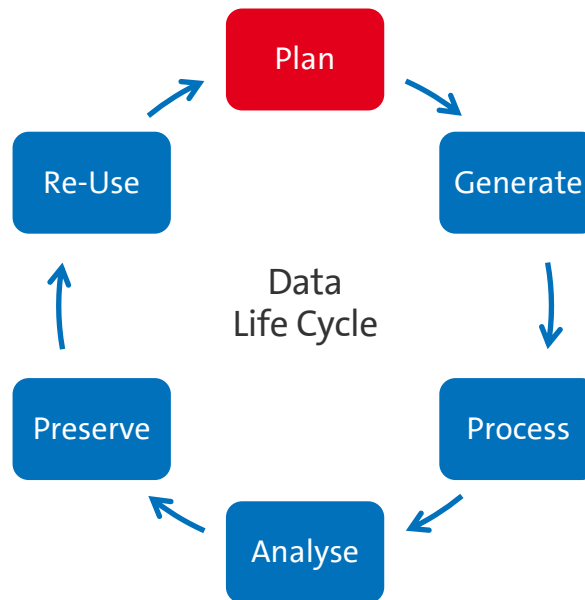


What is Research Data Management?

„Process to ensure long-term usability of research data.“

Longterm aspects

- Archive data, keep ready for at least 10 years
- Ensure data access in the case of closed access (data trustee, Treuhänder)
- Keep keys for encrypted data
- Keep software
- Maintenance of web applications



Daily Work

- Save work data
- Describe data
- Data exchange

Daily Work

- Save data
 - Naming Convention → Versioning:
20240214_GWP_Gasser_v1.ppt
 - File formats, software
 - 3-2-1-Backup Rule
- Describe data
 - Metadata (Schema)
 - Documentation, README file
- Exchange data (B-identifier)
 - UHH Share
 - UHH Cloud



README



UHHShare



UHHCloud



Archiving, publishing Data

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- Finishing thesis or leaving UHH: Handing over data properly, network drives, local data storage, etc. will be deleted!
- Legal aspects: Copyright, usage rights, sensitive data...
- Publish data, posters... in UHH research data repository - www.fdr.uni-hamburg.de/ for testing <https://staging.fdr.uni-hamburg.de/>
- Publish articles <https://www.oa.uni-hamburg.de/oaf>



Repo



Test-Repo



OA-Fonds



Why is RDM important?

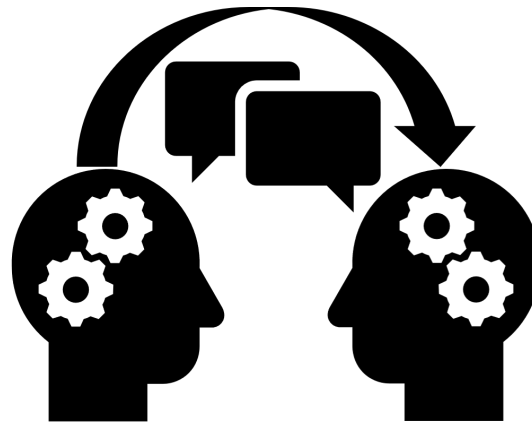
- „Good Scientific Practice“ – reproducible results
- Research data is expensive
- Data publication - data as a resource for new research
- RDM is very important for funders and applications
- DFG (new checklist), EU, BMBF applications require Data Management Plans
- <https://www.fdm.uni-hamburg.de/ueber-uns/a-nachrichten/fdm-dfg-checklist.html>



What are best practices in RDM?

- Do it at all!!!
- Use established data formats and repositories, if available from your scientific community
- FAIR - Findable, Accessible, Interoperable, Re-usable
- Use open licenses if possible (Creative Commons licenses)
- Use persistent identifiers (DOI)
- Observe data protection, legal situation, ethics
- "As open as possible, as closed as necessary"
- Always make descriptive metadata freely available

Questions?



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