



An die HIH Gruppenleiter

Tübingen, 24. November 2020

Notes on Research Data Management

Dear colleagues,

guidelines for good scientific practice demand an existing sophisticated and reliable research data management (RDM).

Unlike common thinking the usage of technology is not the first step in implementing a sustainable RDM. A prerequisite is much more a so-called "Data Governance" guided by three main questions:

- Is it clear, which data should be stored in which form at which location?
- Is it clear, how data can be described to ensure retrievability and future use?
- Are the responsibilities clear of who is to ensure the above standards?

We here suggest five steps to systematically implement in your working group a sustainable RDM that considers these questions:

1. Create awareness of your data flow

Create a data flow chart that visualizes the following facts:

- In which phase of your project is data produced?
- What kind of data is it?
- How is this data to be processed?
- Where is data stored that you are working on during processing?
- Where is data archived after the end of the project?
- Which persons are involved in each of the steps?

2. Formulate internal rules

Create ideas and suggestions on how the data management should look like, e.g.:

- Is there a possible categorization of your data (folder structure)?
- How can a self-explaining naming convention of files and folders look like?
- Which information has to be available to make your data comprehensible - for yourself and for others (documentation)?

3. Apply and evaluate rules

Vorstand:

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Neurologie mit Schwerpunkt
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Prof. Dr. Mathias Jucker
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Gefördert durch die



Integrate the rules defined above step by step in the daily working routine of your group. To facilitate this process it is possible to start with a smaller part of your data and/or personnel like in a pilot study. Hereby you can detect and correct discrepancies as fast and early as possible.

4. Develop and/or choose technology

Now you have the knowledge to profoundly define the requirements for supporting technologies. These technologies should be chosen to support your scientists at recurrent tasks (e.g. keyword assignment, metadata extraction, data handling).

5. Apply technology

By the introduction of a technological solution the initial RDM implementation phase is finished. Now it is time to make the implemented processes permanent by systematically communicating the rules to new members of the group and students.

For any kind of support feel free to contact HIH IT via hih-it@uni-tuebingen.de.

Sincerely

Friedemann Bunjes