



Leibniz-Institut für
Astrophysik Potsdam

DMPwerkzeug

A tool to support the planning, implementation, and organization of research data management

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Data management plans

A highly idealized view ...

- Optimization of data management from the earliest stages of new project, during its lifetime, and beyond.
- Guidelines for the different stakeholders on how to handle the data acquired/used in the project.
- Planning of data publications and long-term preservation.

- Increase of quality and efficiency of scientific work.
- More than just a requirement of funding agencies.
- Beneficial to the researcher, the institution, and the funder.

DMP in Horizon 2020

Open Research Data Pilot

- 9 areas are in the scope of the ORD Pilot, opt-out possible, other projects can participate voluntarily.
 - Projects are supposed to give data to a repository for preservation and, if possible, allow for *access, mine, exploit, reproduce and disseminate* the data.
 - Data management plans are mandatory, but not fixed.
 - DMP contain a description of the datasets, standards, metadata, and information about data sharing as well as long-term preservation.
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- Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020
ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf
 - Guidelines on Data Management in Horizon 2020
ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

Tools for DMP creation

DMPonline (by the Digital Curation Centre, DCC)

- Tailored to the situation in the UK, but also H2020
- Enriched by requirements of the funders, and guidance by the DCC and the researcher's institution
- Internationalization under way (French, German)



DMPTool (by the California Digital Library, CDL)

- Targeted towards the situation in the US
- National Institutes of Health, National Science Foundation



- [DMPonline: dmponline.dcc.ac.uk](http://dmponline.dcc.ac.uk)
- [DMPTool: dmptool.org](http://dmptool.org)

Why another tool?

- DMPTool and DMPonline are mainly tools to discover and edit the DMP templates of the different funders.
- Centralized web applications
 - Transfer of potentially sensitive information
 - Limited customization by institutes or universities
- Generic with respect to the research areas
- Other tools are developed by a particular institution
 - Customized to a particular situation
 - Limited access for non-members
- All tools are not re-deployable without investing considerable effort.

DMPwerkzeug

A tool for the structured planning, implementation, and administration of research data management.

Additionally, it will have the feature of creating a textual data management plan for a proposal.



Team

- Claudia Engelhardt (FHP)
- Jochen Klar (AIP)
- Harry Enke (AIP)
- Heike Neuroth (FHP)
- Jens Ludwig (DINI/nestor AG)

Funding

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Project duration

November 2015 – April 2017

Design goals

- Collaborative editing and maintenance of all necessary information for a sustainable data management of a research project
- Access and specific views for all relevant stakeholders
- Output of a textual data management plan
- Input via a structured interview
 - Skipping redundant questions, different levels of complexity
 - Fine grained input, accessible widgets, sensible feedback
- Full customization of the content
 - Institutional context
 - Research field
- Easily deployable for universities, institutes, etc.

Development

- Web based application using Python Django and AngularJS
- Open-Source (Apache 2, <https://github.com/DMPwerkzeug>)

Challenges

- White-label solution to allow for customized look and feel
- Integration into existing infrastructure (e.g. authentication)
- Interoperability (other instances, other software)
- Preservation of the DMPs
- Providing APIs to work with the DMPs
- Using external APIs from repositories and other infrastructures

Conceptual design and Community

- Update of the work done in the WissGrid context
 - Checklist for research data management
 - Field specific content for astronomy and social sciences
- Structure of the questionnaire
 - Sequence of questions, what to skip?
 - Options for select fields
 - Internationalization (English, German)
- User tests with:
 - GREGOR Fabry-Pérot Interferometer (Astronomy)
 - TWINLIFE (Psychology, Social Sciences)
- Workshops with various partner projects/institutions
 - WissGrid checklist: dmpwerkzeug.github.io/docs/Leitfaden_Data-Management-WissGrid.pdf

Summary

- DMPwerkzeug aims
 - to cover the data management over the whole duration of a project
 - to involve all stakeholders involved in data management
 - to use a structured interview to enter all information needed for a sustainable data management
 - to provide various ways to retrieve and utilize the entered data
 - to be highly customizable for local or field-specific requirements
 - to be easily deployable within any institution
- A *usable* prototype should be available end of this year.
- Get involved:
 - DMPW@LISTSERV.DFN.DE
 - dmpwerkzeug.github.io
 - github.com/DMPwerkzeug



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Thank you!

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