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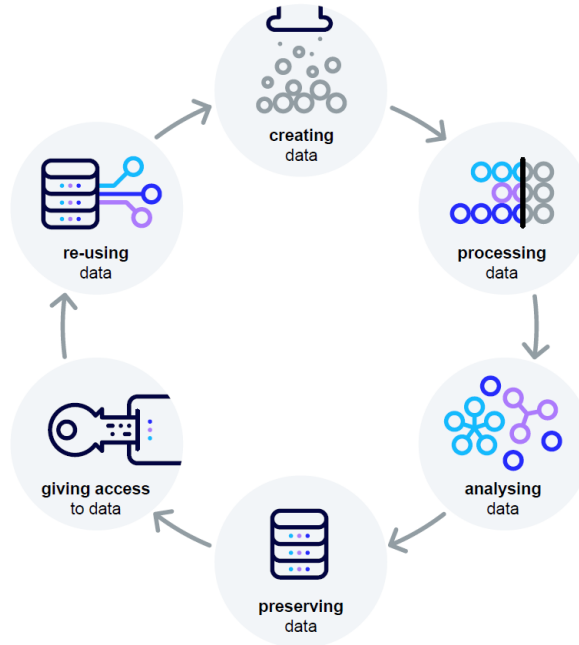
Creating a Data Management Plan



Schleyer Seminar, 2018/10/16

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WHAT IS A DATA MANAGEMENT PLAN?



WHY WRITE A DATA MANAGEMENT PLAN?

“All new project funding applications must include a data management plan (DMP)...”*

- > Funding agencies require it
- > Facilitates the reuse of research data
- > Increases the number of citations due to reuse from others
- > A data publication (with persistent identifier) counts as a publication
- > Reduces risks of data loss
- > Increases chances to store, archive and publish in reusable formats
- > Safes researchers' time by avoiding unnecessary duplication

*October 2017, Swiss National Science Foundation

POLICIES FOR RESEARCH DATA MANAGEMENT

Institutional Policy (UL – work in progress)

Guidelines from funding agencies:

EU “Open research data pilot” in Horizon 2020

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

DFG guidelines

http://www.dfg.de/download/pdf/foerderung/antragstellung/forschungsdaten/guidelines_research_data.pdf

List of discipline specific guidelines (HU Berlin)

https://www.cms.hu-berlin.de/en/dl-en/dataman-en/info/disciplines/discipline?set_language=en

http://www.dfg.de/en/research_funding/proposal_review_decision/applicants/research_data/

FAIR (Findable, Accessible, Interoperable und Reusable) Data Principles

<https://www.force11.org/group/fairgroup/fairprinciples>

EXAMPLES OF DATA MANAGEMENT PLANS

HU Berlin website

Example of Horizon2020 (incl. tutorial in German), DFG and BMBF plan

https://www.cms.hu-berlin.de/de/dl/dataman/arbeiten/dmp_erstellen

Digital Curation Center (UK)

Checklist, guidebook, examples and online Tool (UK agencies, EU)

<http://www.dcc.ac.uk/resources/data-management-plans>

Research Data Management Hub (Switzerland)

Checklist, Guidelines, examples (SNSF)

<https://www.dlcm.ch/resources/dlcm-dmp>

Research Data Management Organizer (RDMO)

Software which is built up, in progress

<https://rdmorganiser.github.io/en/>

ONLINE TOOL FOR DATA MANAGEMENT PLANS

DMPonline (DCC)

<https://dmponline.dcc.ac.uk/>

DMP Tool (University of California)

<https://dmptool.org/>

Welcome

DMPonline helps you to create, review, and share data management plans that meet institutional and funder requirements. It is provided by the Digital Curation Centre (DCC).

Join the growing international community that have adopted DMPonline:



17,622 Users



203 Organisations



23,083 Plans



89 Countries

Some funders mandate the use of DMPonline, while others point to it as a useful option. You can [download funder templates](#) without logging in, but the tool provides tailored guidance and example answers from the DCC and many research organisations. Why not sign up for an account and try it out?

Sign in Create account

* Email

* Password

Forgot password?

Remember email

Sign in

- or -

Sign in with institutional credentials (UK only)

HOW DO I NAME MY DATA?

Potential information:

- Project or experiment name or acronym
- Location/spatial coordinates
- Researcher name/initials
- Date or date range of experiment (YYYYMMDD)
- Type of data
- Conditions
- Version number of file, sequential numbering (001,...)
- Three-letter file extension for application-specific files
- No spaces, use file_name or file-name

<https://library.stanford.edu/research/data-management-services/data-best-practices/best-practices-file-naming>

-> Add your data management plan excerpt - readme.txt file – to explain codes and abbreviations.

WHAT IS METADATA?

Metadata is structured information about data:

- Descriptive metadata: identification of data (title, author, abstract...)
- Technical metadata: technical process of production of digital object
- Bibliographic/Administrative metadata: general information, versioning, rights, date changed, access
- Structural metadata: Content/discipline specific, community specific description and content of data, relationships and links

-> Machine readable (often XML format)

-> Metadata standards for interoperability (community)

<http://www.dcc.ac.uk/drupal/resources/metadata-standards>

<http://rd-alliance.github.io/metadata-directory/standards/>

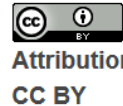
-> Dublin Core Metadata Element Set (well-known)

-> List of metadata tools <http://www.dcc.ac.uk/resources/metadata-standards/tools>

WHAT ABOUT COPYRIGHT LICENCES

- Most used are creative common licenses

<https://creativecommons.org/licenses/?lang=en>



CC-BY

-> lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation.

CC-BY-SA

-> lets others remix, tweak, and build upon your work even for commercial purposes, as long as they credit you and license their new creations under the identical terms.

CC-0

-> allows licensors to waive all rights and place a work in the public domain

WHICH ARE ARCHIVABLE FORMATS?

Type	Recommended	Limited extent	Not suitable
Text	<ul style="list-style-type: none"> - PDF/A (*.pdf) - plain text (*.txt, *.asc,...) coded as ASCII, UTF-8, UTF-16 - XML 	<ul style="list-style-type: none"> - PDF with fonds - Rich text (*rtf) <p>ok for supporting info:</p> <ul style="list-style-type: none"> - Word (*.docx) - power point (*.pptx) - LaTeX - OpenDoc. (*.odt,...) 	<ul style="list-style-type: none"> - Word (*.doc) - Power point (*.ppt)
Spread-sheet	<ul style="list-style-type: none"> - *.csv 	<ul style="list-style-type: none"> - Excel (*.xlsx) - OpenDoc. (*.ods) 	<ul style="list-style-type: none"> - Excel (*.xls, *.xlsb)
Image	<ul style="list-style-type: none"> - TIFF (*.tiff) uncompressed - PNG (uncompressed) - JPEG2000 (lossless compression) 	<ul style="list-style-type: none"> - TIFF compressed - GIF (*.gif) - BMP (*.bmp) - JPEG (*.jpg) - JPEG2000 (*.jp2) lossy compression 	

HOW DO I FIND A REPOSITORY?

Registry of research data repositories

- <https://www.re3data.org/>

Example of general repository

- <https://zenodo.org/> - hosted at CERN

Discipline specific repositories:

- <https://pangaea.de/> - Earth and Environmental Science
- <https://datorium.gesis.org/xmlui/> - Social Sciences (Gesis)
- <https://de.dariah.eu/startseite> - Humanities

WHICH COSTS DO I ANTICIPATE?

- Staff (data manager/data scientist, computer scientist)
- Supplies (server, computer), tools (software), usage times (joint large equipments)
- Indirect costs for infrastructure
- Services (license costs, longtime archiving, repository costs, publication costs, qualification of staff...)

CONTACTS AT LEIPZIG UNIVERSITY

Working Group Research Data Management

- Stefan Kühne, Reiko Liermann, Barbara Weiner, Stephan Wünsche
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Ethics (Ethikbeirat/Kommission)

- Maria Melms (University): ethikbeirat@uni-leipzig.de
- <http://home.uni-leipzig.de/ethik/> (Medizin)

Data protection and privacy

- Thomas Braatz
- <https://www.uni-leipzig.de/service/datenschutz.html>

Open Science Office

- Karolin Schmahl, Astrid Vieler, Stephan Wünsche
- openscience@ub.uni-leipzig.de