UCLouvain

Introduction to Research Data Management & Data Management Plans

24 janvie



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Presentation

Part 1

Research Data Management

What is it? What are the main steps? How can it help me as researcher?

	Part 2	
ata	Management Plans	

What is it? What are the main steps? low can it help me as researcher?

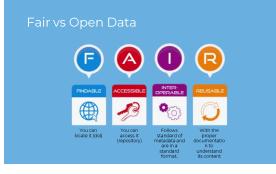
Research Data Management

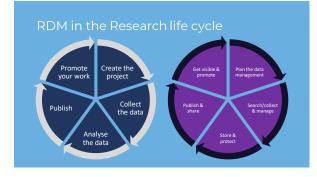
Create, organize, make, store and share research data of an institution

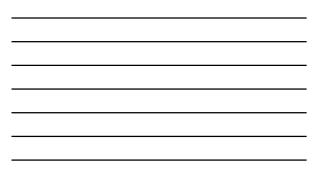


RESEARCH DATA: « the recorded factual material commonly accepted in th cientific community as necessary to validate research finding"









Search or Collect data





- Mendeley data: https://data.mendeley.com/datasets OpenAire: https://explore.openaire.eu/search/find Re3data: https://www.re3data.org/

Data Management



Using data entry screens Using controlled vocabularies, and choice lists to minimize manual data entry Detailed labelling of variable to avoid confusion



Verifying random samples of the digital data against the original data
 Statistical analyses such as frequencies, means, ranges or clustering to detect errors and anomalous values
 Peer review



How are the missing value encoded *i* percent types of missing values)
Individuals/observations are in line and not in column.
The columns' name should be written on one line (help for importation).
Withdraw the useless lines and columns (and avoid leaving empty columns).
Data importation: check if there are the same before and after the importation.
Look for duplicated observations.
Look for consistency between your variables



Store & protect





The GDPR



- Data protection is a fundamental human right and a central issue for research eth
 General Data Protection Regulation (2018) GDPR applies to the personal data procedure subjects and processing by a controller/processor located within the EU.

- Transparency-data subjects should be aware of the processing of their personal data.
 Purpose limitation purpose must be specified, explicit and legitimate. Personal data collected for one purpose should not be used for another purpose unless it is compatible with

Informed consent

- Ethical and legal process 'consent' is now also a legitimate basis under which researchers
 can process personal data. Under the CDPR consent needs to be freely given, informed,
 unambiguous, specific and indicated by a clear affirmative action.
 People have a right to know that they are participating in research.
 Informed consent forms should be used in all research with human subjects
 Informed consent forms state the reason for data collection, how data will be used, how
 data is tored and who the responsible contact is

- data is stored and who the responsible contact is Sharing or publishing data should be mentioned in the informed consent forms—if omitted, it could cause problems later on.

Sensitive data for the GDPR

- Racial or ethnic origin
- Religious or philosophical beliefs
- Frade union membership
 Biometric data (where used for ID nurnoses)
- 🖌 Health
- Sexual or
- Genetic data
- Data relating to.
 Criminal conviction
- Offences
- Data concerning childre

Research Data Management

Publish and share



Select your data for publication, choose a repository, publish a data paper, make a data sharing agreement or license your data, choose an embargo period

Select your data for publication

- Select data you must publish, and delete those you have to (consortum agreement, legal obligations, GDPR requirements)
- For other data, consider their uniqueness, long-term value and potential of reuse
 Keep certain data to validate your publication's results, for future teaching or
- Take also into account the costs (time, software, etc.) and efforts required to preserve these data (preparation, documentation, and storage steps).
- Depending on these (legal) aspects, you may state a period of preservation: some data will be obsolete in 2, 5, 10 or 50 years.





stated in your consoftium agreement, funders' contract, patent, etc. Several reason for delaying your data release (only you and your partners might publish using your data). Consider how long your embargo period will last (if any) and state a clear release (date).

Get visible and promote



Link your data with papers, spread the news on social media, promote your RDM skills

- Knowledge in research process (data collection, methods)
 Knowledge in data curation, coding, IT skills
 Disciplinary specificities (lools, devices, programs, etc.)
 Knowledge in ethical and/or commercial use of data in your field
 Knowledge in the repositories, websites, where you can find/share data in you
 Knowledge in data license



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RDM Advantages for researcher

- 1. Helps planning your resea
- 2. Increase use of data management best practi
- Get access to data collected by others
- 4 Share your data with your fellow partner, scientific community, or society
- 7 Transnaron*ov Iror*
- Cat more from your date (ather research)
- Helps VOLIDSELE to reuse your previoulsy acquired
- 0 Store and backup safely
- Merne datasets and star
- 12. Sometimes it's mandatory



Research Data Management

Data Management Plan



Data Management plans

Data are the **core part** of all research projects : important to manage data carefully Some exemples:

- Increasingly required by funders (H2020, ERC, FWO, Belspo, FNRS, e
- Research proposal
 Often seen as an additional administrative load with limited importance.



>>>> But many advantages

Data Management plans - Advantages

- I. Backbone of projects: will guide all its organization
- 2. Research partners can always refer to it
- it provides a common, written understanding of every step of the project
- b. By setting everyone sresponsibility it neips to deal with a researcher's leave
- Written at the beginnings of the project, but can always been upgraded
- Save time a) refer to it later: procedures just hava to be followed b) usefull basis to write reports, or methods in a pape

Data Management plans



DMPonline

- Open source software
- Developped by the Digital Curation Center (DCC, UK).
- Can be shared and edited by our (international) research partners, via ORC
- Up to date Now also RGPD registry.

DMPonline

Templates

A set of questions stating on the data processing/data life cycle
 Main templates available are: H2020, EPC, EWO, Belspe, UCL ouvair

The templates

Guidance

- Helping reserchers to answerguestions
- Suggestingsampleanswers
 DCC provides a sample quidance
- Could also be customized by each member for specific uses (UCLouvain guidance)

DMPonline – main steps

Template

- 1. Login with institutional ID/password
- Create a plan select your template (H2020, UClouvain, etc.), select your institution (UCLor received under select your template.
- Answerguestion blocks (+ comment for pa
- 4. Share with your research partners (enter email) external log with ORC
- 5. Requesta feedback
- 6. Exportyour plan

Workshops will be organized before UE project depose



website https://uclouvain.be/fr/universite-numerique/rdm

RDM & DMPs @UCLouvain

in a nutshell



DMPonline https://dmponline.be/ sign with UCLouvain login/password look at the tutorial



Any question? RDM central email adress: rdm@uclouvain.be