Leiden University Data Management Plan[[1]](#endnote-2), v. 3.2

*The Research Data Management Regulations Leiden University requires researchers to write a data management plan at the start of a long-term research project[[2]](#endnote-3). Contact the* [*Centre for Digital Scholarship*](https://www.library.universiteitleiden.nl/research-and-publishing/centre-for-digital-scholarship) *at the University Libraries Leiden if you need help:* *cds@library.leidenuniv.nl**. Please check for the latest version of this template at the* [*website*](https://www.library.universiteitleiden.nl/research-and-publishing/centre-for-digital-scholarship) *of the CDS.*

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| Name and contact details | *Please include email address and telephone number* |
| Name of project and group | *Name your supervisors* |
| Description of your research | *Briefly describe your research to help others understand the purposes for which the data are being collected or created. Max. 50 words.*  |
| Project duration | Start: *DD-MM-YYYY*End: *DD-MM-YYYY* |
| Names of people and their responsibilities for data management  | *Responsibilities can be collecting, storing, documenting, sharing and archiving the data.**Naming anyone with specific roles and responsibilities for data management is especially important for collaborative projects that involve many researchers and/or partner organisations.* |
| Funding body(ies) | *If applicable.* |
| Grant number | *If applicable. A grant number provides unique identification for the grant.* |
| Partner organisations | *If applicable. These may be research partners that use your data, or that you use data from.*  |
| Ethical review | *If applicable mention the registration number of your protocol and the name of the Ethical Committee.*  |

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| Processing of Personal Data | *If you process personal data, you are legally required to fill out a Data Processing Inventory. Personal data refers to any information that can be traced back to a person. This information could be a name, address or location, but it could also be bank account numbers, telephone numbers or post codes with house numbers. For more information, see:* [*https://www.staff.universiteitleiden.nl/ict/privacy-and-data-protection/personal-data/personal-data/service-units?cf=service-units*](https://www.staff.universiteitleiden.nl/ict/privacy-and-data-protection/personal-data/personal-data/service-units?cf=service-units)*.*[ ]  I do not collect personal data. [ ]  I collect personal data and I will answer questions P1 and P2.  |
| Part 1Research Data Processing Inventory | *You can contact the information manager of your faculty or the Data Protection Officer for the latest template of the Research Data Processing Inventory, see also:* [*https://www.staff.universiteitleiden.nl/ict/privacy-and-data-protection/general-data-protection-regulation-gdpr/general-data-protection-regulation-gdpr/service-units?cf=service-units*](https://www.staff.universiteitleiden.nl/ict/privacy-and-data-protection/general-data-protection-regulation-gdpr/general-data-protection-regulation-gdpr/service-units?cf=service-units)*.* [ ]  I did fill out the Research Data Processing Inventory and will attach it to this DMP[ ]  I did not yet fill out the Research Data Processing Inventory [ ]  Not applicable, I do not collect personal data |
| Part 2Description of Risks and Corrective Measures | *After completing Part 1, you should complete the Description of Risks and Corrective Measures (part 2). You can find the latest version at (*[*https://www.staff.universiteitleiden.nl/ict/privacy-and-data-protection/general-data-protection-regulation-gdpr/data-processing-register/service-units?cf=service-units*](https://www.staff.universiteitleiden.nl/ict/privacy-and-data-protection/general-data-protection-regulation-gdpr/data-processing-register/service-units?cf=service-units)*).*[ ]  I did perform a Description of Risks and Corrective Measures and will attach it to this DMP[ ]  I have not yet filled out the Description of Risks and Corrective Measures. [ ]  Not applicable, I do not collect personal data. |

About this Data Management Plan

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| --- | --- |
| Date written | *DD-MM-YYYY* |
| Date last update | *DD-MM-YYYY* |
| Version | *A new version of the DMP should be created whenever important changes to the project occur due to inclusion of new data sets, changes in consortium policies or external factors*.*Don’t forget to include the date.* |

**Changes in this version of the Data Management Plan**

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| **Component** | **Progress / Execution** *Please describe briefly what progress you have made, any questions or issues you have encountered and want to discuss, etc.* |
| 1. Data collection | *………* |
| 2. Data storage and back-up | *………* |
| 3. Data documentation | *………* |
| 4. Data access, sharing and reuse | *………* |
| 5. Data preservation and archiving | *………* |

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| **1. Data collection**Describing the data you will be creating/collecting |
| 1.1 | **Will the project use existing or third party data ?**[ ] No[ ]  Own / group previous research[ ]  Academic collaborators[ ]  Commercial collaborators[ ]  Publicly available database / archive[ ]  Specialist commercial data provider[ ]  Other (please specify)*Describe briefly provenance, type and format of this data. Are there any restrictions or requirements for use of third party data such as licensing conditions?*  |
|  | *…………* |
| 1.2 | **How will you collect and/or create your data?** *Please describe briefly. Name any relevant protocols and/or standard in your area of expertise.*  |
|  *…………* |
| 1.3 | **What type()s of data will you collect or create, in what file format(s)?[[3]](#endnote-4)***Note that not all formats are long-lived. For sustainable access you best use the formats recommended by data archives, see for examples: http://researchdata.4tu.nl/en/publishing-research/data-description-and-formats/ or https://dans.knaw.nl/en/deposit/information-about-depositing-data/before-depositing/file-formats?set\_language=en* |
|  | *…………* |
| 1.4 | **What tools, instruments, equipment, hardware or software will you use to capture, produce, collect or create the data?** *Please give the names of the tools and state if they are already available. If not, state how you intend to acquire them. If applicable, describe whether you use a paper or electronic labjournal.*  |
| *…………* |
| 1.5 | **What is the estimated size of the data?***Please describe briefly. Stages to be adopted if relevant.*  |
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| Data stage | Specification of type of research data | Software choice and file format | Data size now | Data size when project is finished |
| *Raw data* |  |  |  |  |
| *Processed data* |  |  |  |  |
| *Results* |  |  |  |  |
| *Other…* |  |  |  |  |

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| *…………* |

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| **2. Data storage and security**Ensuring that all research data are stored securely and backed up or copied regularly during your research |
| 2.1 | **Are there any commercialisation, ethical or confidentiality restrictions about handling your data?***Please specify briefly.* |
| [ ]  Contractual obligations [ ]  Requirements by law : protection of personal data (e.g. privacy law): specify in 4.1[ ]  Requirements by law : copyright, intellectual property : specify in 4.1[ ]  Ethical restrictions (e.g. ethical review) : specify in 4.3[ ]  Commercial considerations (e.g. patentability)[ ]  Formal security standards [ ]  No requirements[ ]  Other, namely: ……… |
| *…………* |
| 2.2 | **Did you perform an information risk assessment?** *[More information on the assessment will be available soon]*  |
|  | [ ]  **Yes**[ ]  **No** |
| 2.3 | **What are the main risks to data security?***Please list risks, e.g. accidental deletion, falling into the wrong hands.* *Please describe what would happen if the data get lost or become unusable.*  |
| *…………* |
| 2.4 | **What measures do you take to comply with the security requirements and to mitigate the risks?***Describe how you can restore your data in the event of data loss and who is responsible.**If applicable, please describe procedures to ensure personal data are handled confidentially and who is responsible.*  |
| [ ]  Access restrictions[ ]  Encryptions[ ]  Data processing[ ]  Pseudonimisation [ ]  Anonymisation [ ]  Regular back-ups[ ]  Master copy stored on university network storage [ ]  Master copy stored elsewhere [ ]  Other, namely: … |
| *…………* |
| 2.5 | **Where will you store your data?***Please describe how safe storage is guaranteed. Specify your method if your data is collected and / or transported in different locations / countries.* |
|  | [ ]  On university departmental network storage / workgroups (J:)[ ]  On university personal network storage (P:)[ ]  In a Virtual Research Environment (Sharepoint) [ ]  Physical storage (e.g. USB, external hard drive)[ ]  Cloud service (e.g. SURFdrive)[ ]  Institutional service (e.g. Dataverse), namely: [ ]  Other, namely: … |
| .... |
| 2.6 | **How will access to the data be managed during the project? Do you have an access control matrix?** *A matrix will help you to specify who will have access to your digital and non-digital data. Please specify for each storage device, from different locations / countries. You can use the matrix in 4.2 to decide at which stage you will share with whom.* |
| .... |
| 2.7 | **Will your data be backed up?***Please specify briefly for each storage device frequency, location of backups and who is responsible.* |
|  | .... |
| 2.8 | **How do you differentiate between raw and processed data?***Please explain briefly why you (do not) differentiate.* |
| [ ]  I will not differentiate[ ]  I will create a new file for processed data[ ]  I will create a new file for processed data and I will lock raw data[ ]  Other, namely: … |
| *…………* |
| 2.9 | **Is there any non-digital data or outputs that the project will generate? Where will these outputs be stored?** *Do you have a protocol for the storage and deletion of non-digital data? Please specify briefly and describe who is responsible for storage of these outputs.*  |
| *…………* |
| 2.10 | ***Do you expect to have any supplementary costs for storage not covered by the project budget?****Please specify* |
|  | ***.....*** |

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| **3. Data documentation**Documenting your data to help future users to understand and reuse it |
| 3.1 | **How will files be named?***Please describe briefly.*  |
| *…………* |
| 3.2 | **How will folders be named and structured?***You are invited to draw a folder structure and describe it briefly.* |
| *…………* |
| 3.3 | **How do you handle version control to maintain all changes that are made to the data?***Please explain your choice briefly. Remember to also document any deletion of data, if applicable.*  |
| [ ]  No version control (e.g. original files are overwritten)[ ]  Version control software, namely: …[ ]  Data/version number in filename/folder[ ]  ‘Track changes’ feature in software[ ]  By saving the script with which I process my data[ ]  Other, namely: … |
| *…………* |
| 3.4 | **What metadata standard will be used, if any?[[4]](#endnote-5)***Please explain why you use this standard (most used in my discipline, required by the data archive where I will deposit my data). Please outline how the metadata will be created (read me file, spreadsheet, in the data). If no standard exist, please specify which metadata is needed to understand the data.*  |
| [ ]  No metadata standard is used[ ]  Generic metadata standard (e.g. Dublin Core)[ ]  Standard automatic Windows metadata (e.g. from Word, Excel)[ ]  Specialised metadata standard, namely: …[ ]  Other metadata standard, namely: … |
| *…………*  |
| 3.5 | **What supporting information / documentation will you create to enhance understanding of the data ?***Please describe briefly how peers should be able to understand the data. Examples are a readme.txt, lab journals, a codebook, survey questions etc. Is there a standard for documentation in your field? Describe at what moment in your research process you will add the documentation necessary to make sure the data is understandable for peers.* |
| *…………* |

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| **4. Data access, sharing and reuse**Managing access and security, sharing your data |
| 4.1 | **Do you have any restrictions on sharing data due to the General Data Protection Regulation?** *Specify. For more information on the GDPR, see the staff members website. .*  |
| **…….** |
| 4.2 | **If intending to share any part of the data, do your participant consent forms include information about intentions for sharing, retention of data and steps taken to protect participants privacy and confidentiality?** |
| [ ]  Not applicable.[ ]  Yes. *Please specify the relevant formula in the consent form.* |
| *…………* |
| 4.3 | **Are there any restrictions placed on sharing / reuse of some / all of your data, other than protection of personal data?** *Please account for not sharing your data. Reasons may be ethical, commercial, security-related, intellectual property, copyright.*  |
| *…………* |
| 4.4 | **With whom will you share your data at which stage in your research? You can use the table below.** *Please describe briefly how you will share your data: on request, pro-actively, etc...*  |
|

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Will not share with anyone | Will share with my immediate collaborators | Will share with others in my research centre or at my institution | Will share with scientists in my field | Will share with scientists outside of my field | Will share with anyone |
| Immediately after the data has been generated |  |  |  |  |  |  |
| After the data has been normalized and/or corrected for errors |  |  |  |  |  |  |
| After the data has been processed for analysis |  |  |  |  |  |  |
| After the data has been analysed |  |  |  |  |  |  |
| Immediately before publication |  |  |  |  |  |  |
| Immediately after the findings derived from this data have been published |  |  |  |  |  |  |

Based on: Interview worksheet, Jake Carlson, Purdue University Libraries / Distributed Data Curation Center |
| *…………* |
| 4.5 | **Under which conditions will you share your data?** *Will a data sharing agreement (or equivalent) be required?* |
| *…………* |
| 4.6 | **Who has authority to grant (additional) access to your data?***Please describe briefly.* |
| [ ]  Only you[ ]  A colleague from the project, namely: …[ ]  Supervisor [ ]  Funder [ ]  Collaborator / research partner organisation[ ]  Other, namely: … |
| *…………* |
| 4.7 | **How will you manage copyright and Intellectual Property Rights issues?***Who owns the data? How will the data be licensed for reuse?* *Please describe briefly your choices and their consequences.* |
|  *…………* |
| 4.8 | **What is the audience for reuse?***Please list possible audiences and purposes. Consider who might use it now and who might use it later.* |
| *…………* |
| 4.9 | **How will potential users find out about your data?** *Interested users might find out about your data on your projectwebsite, via papers on conferences, data catalogue, LUCRIS, Dataverse, data repository etc..* |
| ………… |

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| **5. Data preservation and archiving**Preserving your data |
| 5.1 | **Are there any requirements on making (part of) your data public after your project?** *If your funder requires you to make your data FAIR and / or open, please provide link to funder policy or guidelines. Will your data be available freely or upon request? Mention embargo period if applicable. Will a data user agreement (or equivalent) be required?* |
| **…………** |
| 5.2 | **Which criteria will you use to decide which data has to be archived for the long term?** *Please briefly describe your choices.* |
| [ ]  Type of data (raw, processed) and how easy it is to reproduce it[ ]  Relevance of content for others[ ]  Usability of format for others[ ]  Data underlying publications[ ]  Verification of research[ ]  Available time[ ]  Available money[ ]  Other, namely: … |
| *…………* |
| 5.3 | **How long should your data be preserved?** *State obligations you have by law, funder, university, etc. if any. According to the University regulations on data management you must make your data findable, accessible and reusable for at least 10 years.* |
| *…………* |
| 5.4 | **Are there any requirements regarding the disposal of data (digital and non-digital)?***Describe how you will dispose of the data, e.g. how you will get approval, what people and/or tools you need, etc.* |
| **………..** |
| 5.5 | **Which data repository is appropriate for archiving your data?***Please describe briefly. Does this archive have a ‘data seal of approval’ or another form of certification?*  |
| [ ]  Discipline specific (international) repository, namely ...[ ]  4TU.Centre for Research Data[ ]  SurfSara[ ]  DANS Easy [ ]  Other (international) repository, namely : [ ]  Other, namely: … |
| *…………* |
| 5.6 | **Does the archive have specific requirements concerning file formats, metadata etc.** *Provide relevant urls to the documentation on these requirements. Describe how you intend to meet those requirements, e.g. converting the file formats, providing supplementary documentation.* *Will there be extra costs to prepare your data for archiving?**Please specify. See* [*http://www.data-archive.ac.uk/media/247429/costingtool.pdf*](http://www.data-archive.ac.uk/media/247429/costingtool.pdf) |
| *…………* |
| 5.7 | **Will you archive data otherwise than in a public repository? Where? How will access be organised?** |
|  |  |
| 5.8 | **What costs (if any) will your selected repository charge? Who pays?***Please state the costs in euro’s and the institution that pays for it.*  |
| *…………* |
| 5.9 | **Who is responsible for the data after the project ends?***Please state a position and the current person in that position.* |
|  *…………* |

1. This template is based on the 3TU data management plan, the University of Bath data management plan and the Data Management Checklist of the University of Western Sydney. [↑](#endnote-ref-2)
2. https://www.library.universiteitleiden.nl/binaries/content/assets/ul2ub/research--publish/research-data-management-regulations-leiden-university\_def.pdf [↑](#endnote-ref-3)
3. Data types can be : documents (text, MS Word), spreadsheets, field notebooks, diaries, questionnaires, transcripts, surveys, codebooks, audiotapes, videotapes, photographs, (transcribed) test responses, models, algorithms, measurements, simulations, observations, software source code, computational model output, etc. Think of the different stages (for instance : video recording, transcript, annotation, lists of typological features ....). [↑](#endnote-ref-4)
4. See <http://www.dcc.ac.uk/resources/metadata-standards> or <http://en.wikipedia.org/wiki/Metadata_standards> or the relevant repository. [↑](#endnote-ref-5)