

Exercise 1. Data Flow Map

Note: *This exercise is only a reflective practice, you do not need to submit it nor will you receive feedback on it.*

Write down what data you expect to collect/create during your project. After this, reflect on the back-up and storage for your data. We will provide you with a step-by-step guide to help you reflect on your data. At the bottom of the page you will find some examples we prepared. You can either use this [template](#) or work on a sheet of paper with Post-its - use your own creativity to make this exercise.

Step 1 - Fill out the data you will collect/create with a short description

- Start with identifying and listing the different datasets that you will be collecting or creating during your project. Remember that code, models, interviews, etc. are also important types of research data.
- 1a. Give each dataset a descriptive name and fill this out on the template. For example: Interview videos, Sequencing data, Sensor data, etc.
- 1b. Add to the template a very short description of each dataset e.g. what is the data, how it is collected/created, what is the file format, what is the (file)size.
- Do not restrict yourself to list only three types of datasets! Please provide a comprehensive list. If you would like to extend the list, you can do so by duplicating the slides we have provided.

Step 2 - Indicate actions to the data

- Go to the toolbox in the PowerPoint template (slide 2).
- Select/Copy the green actions arrows that are related to the datasets you listed and add them on your template. This will help to add some extra description to the data that can influence your reflections.
- Actions to consider: Were the data collected, were they created or are you re-using data from others? If necessary, add new data sets depending on your action. For example, if you collected interviews, you might need to transcribe them generating a new dataset consisting of transcription files.

Step 3 - Reflect on your data

- Take a critical look at the data you listed.
- Use the red flags in the toolbox in the PowerPoint template (slide 2) to indicate important characteristics of your data that might influence how you need to manage it.

Step 4 - Reflect on the theme Back-up and Storage

We talked about the infrastructure that TU Delft offers for storing and backing up data, so think: where will you be storing the data?, where will the master copy be stored?, and what infrastructure will you use as a backup? Keep in mind the flags you have added to the list of datasets when selecting the storage and backup for the data and code.

- Reflect about the Theme “Back-up and storage”, think about a strategy to securely store the data of your project and add your choice and considerations to the template.

Examples

To help you get started, we prepared some examples that might help you out:

Example I:

Theme (1) Storage & Backup

Step 1
Fill out the respective boxes with following information (see slide 2 for some tips and examples):
1) Add a descriptive name of research data/objects
2) Add the type of research data/objects
3) Add the format and size of each research data/object
4) Add a short description

Step 2
Indicate actions to the research data/object. Use the Toolbox (slide 4)

Step 3
Use the red flags in the Toolbox (slide 4) to indicate if a research data/object has important characteristics that might influence how you need to manage it.

Reuse	Existing Finite Element Model	Confidential data	model	.dxf file; very large (from 1 GB to 10 GB)	The Finite Element Model from external institutions. (Amsterdam municipality or other groups) (DIANA file)
Analyze	Structural Reports	Confidential data	report	.pdf file or .doc file; less than 100 MB	The technical reports from Amsterdam municipality.
Analyze	Shapefile	Confidential data	dataset	.shx file; less than 100 MB	The shapefile containing the position and some attributions of each bridge and quay wall in Amsterdam.
Analyze	Sensor Data	Check usage rights	dataset	.dat file or .xls file; less than 100 MB	The sensor data of some bridges indicating the displacements or other parameters
Create	Created Finite Element Model		model	.dxf file; very large (from 1 GB to 10 GB)	The Finite Element Model created by myself.

Step 4
Reflect about the Theme “Storage and Backup”. Think about a strategy to securely store research data/objects of your project and add your choice and considerations to the template, answering the three questions in the boxes below.

Q1. Where will you store the research data/objects?

1. Project Data U:
2. My TUD Laptop with Surfdriive

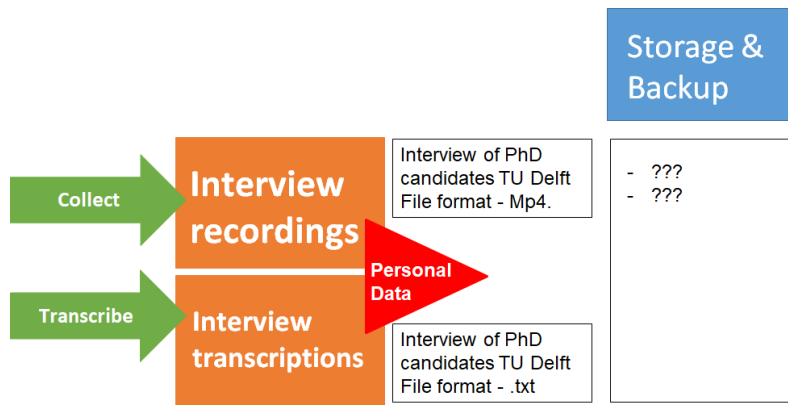
Q2. Where will you store the master copy?

Project Data U:

Q3. What infrastructure will you use as a backup?

Generally, I work on my TUD laptop so that ongoing documents are directly stored on my laptop with automatically synchronised by Surfdriive. Once a week, I will organize all the data that I did and back them up in Project Data U.

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Example II:

