

# Questions to ask yourself as you plan managing your data

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**Based on extracts from ‘Twenty Questions for Data Management’  
by David Shotton, Oxford DMP 2012 project**

<https://datamanagementplanning.wordpress.com/2012/03/07/twenty-questions-for-research-data-management/>

These questions are designed to prompt and assist your thinking at the beginning of a research project and to form the basis of a workable research data management plan (DMP). Your plan will guide your on-going data management activities and inform others about the nature and availability of your research data.

These questions will help you consider how best to safeguard your data from loss and how to describe your datasets in ways that assist you when returning to them in the future. They will also prompt you to preserve your data in ways that maximize their usefulness to others and bring maximum academic scholarly credit to yourself.

You may not have immediate answers to all these questions. But, by seeking advice from your research supervisor, colleagues and others, you should endeavour to discover them. Then, once in a while, you should revisit these questions and see whether your data management practices can be improved and updating your answers.

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## 1) The nature of your data

Q: What is the exact nature (range, scope) of your research data?

Possible responses:

- Long-distance quantum communication using entangled photons.
- Protein chemistry and electron microscopy of cell membrane proteins.
- Video field recordings of avian behaviour, and their quantitative analysis.

Q: If you know at this stage, specify in what format(s), will you store your data in the short term after acquisition?

Possible responses:

- Questionnaire response data will be stored on my laptop in a Microsoft Office Access 2019 database.
- Raw video recording on digital video tapes on the shelf above my desk, edited videos in .mov format on my laptop. numerical analyses in a spreadsheet (Microsoft Office 365 Excel format)

## 2) Documenting your data

Descriptions, so that someone else can understand what the data are about (i.e. metadata, “data about data”)

Q: When and where will you describe each of your research datasets?

Possible responses:

- The only description will be the filenames on my hard drive.
- I will describe the data using handwritten notes if and when I have time, – hopefully I’ll be able to remember all the details.
- I will describe the data using the column and row labels in my spreadsheets after the data have been analysed.
- I will create descriptive metadata for each dataset as I create/acquire it, and will save these descriptions with my datasets on my hard drive.

Q: How will descriptive metadata be created or captured?

Possible responses:

- Instrument metadata are automatically included in each data file.
- My data descriptions will be saved in spreadsheets or word processor documents.

### 3) Data sharing and publication

Q: With whom will you share your research data in the short term, before publication of any papers arising from their interpretation?

Possible responses:

- My research supervisor only.
- Members of my research group and trusted external collaborators.
- Anyone who asks for them.
- Everyone, by publishing the data online - our research community is committed to the rapid sharing of results.

Q: Is public access to any of your research data to be restricted? If so, why?

Possible responses:

- We intend to make a patent application, and must avoid prior disclosure.
- Don't want to make locations of members of endangered species available to poachers.
- The research data are confidential because of the arrangement my research group has made with the commercial partner sponsoring our research.
- Questionnaire data collected in confidence from individuals – anonymized averaged data *will* be published.

#### 4) Data storage, backup and archiving

Q: Where will you store your data in the short term, after acquisition?

Possible responses:

- On my laptop.
- OneDrive for Business, provided by the University
- On an encrypted USB

Q: Who is responsible for the immediate day-to-day management, storage and backup of the data arising from your research?

Possible responses:

- Myself alone.
- My research group's data manager.

Q: Where will your research data be archived for long-term preservation?

Possible responses:

- Selected data will be included in the figures and tables of research papers published by my research group, but we have no plans to archive and publish the full datasets.
- In the University's data repository, run by the library service. ORA-Data
- In appropriate genomics databases run by the European Bioinformatics Institute.

Q: Who will decide which of your research data are worth preserving?

Possible responses:

- Myself alone.
- Myself, in consultation with my research supervisor.
- My research supervisor alone.

Q: Who will be responsible for your data, once you have left your present research group?

Possible responses:

- At this stage, I have no idea.
- I'll take my data with me and maintain responsibility.
- My supervisor will make appropriate arrangements.
- I hope the journal will maintain access to the supplementary information files associated with my article.
- My University will assume long-term responsibility for the data I have chosen to preserve in its data archive.

Further information is available on RDM from 'Research Data Oxford'

<http://researchdata.ox.ac.uk/>

Or from organisations such as the Digital Curation Centre or the UK Data Archive/ UK Data Service

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

<https://www.ukdataservice.ac.uk/manage-data/plan/checklist>