Research Data Management for Oxford Researchers

Research data management is an umbrella term, covering both **dealing with data on a day-to-day basis** during a research project and **longer term issues** such as preservation and sharing.

While it includes working with structured data (the sort that might be stored in a table or database), it certainly isn't limited to that – it also covers textual sources, images, recordings, and much more.

Good data management is about making the research process as efficient as possible:

- In the short term, making sure you can **find the information you need** when you want it

- In the longer term, ensuring the information collected **remains useful**

Start early and think ahead

A key principle of good data management is **forward planning** – the earlier you start, the easier it tends to be. (On the other hand, it's never too late to make some improvements.)

- Have you considered making a **data management plan**?

  - A tool such as DMP Online (https://dmponline.dcc.ac.uk/) can help with this.

  - Many funders now require a data management plan as part of funding bids.

- Do you have good systems in place for **organizing your material**? Are there changes you could make to make life easier for yourself?

- Are you using the most appropriate **software or other tools** for the job?

  - There's a lot of choice out there: the Research Skills Toolkit website (http://www.skillstoolkit.ox.ac.uk/) provides an overview.

  - Colleagues may also have useful recommendations.

- Are you recording all the **contextual information** that will be needed to ensure your data remains intelligible if you return to it after a gap?

- What are your **long term plans** for your data? What do you need to do now to facilitate these?

  - Many funders now require researchers to make their data publicly available at the end of the project – does this apply to you?

Help and advice

- The **Research Data Oxford** website (http://researchdata.ox.ac.uk/) is a central source of guidance and further information.

- The **IT Services Research Support team** (http://research.it.ox.ac.uk/) can provide technical advice, including help with funding bids.

- **Bodleian Libraries** (http://www.bodleian.ox.ac.uk/bdlss) can provide advice on curation-related issues (such as data standards and metadata), and can issue DOIs (unique, permanent digital object identifiers) for datasets.

Storage and backing up

We all know that it's important to **store things safely**, and to make sure they're properly **backed up**. It's worth keeping copies of your data in two or three different places – in case of fire or theft, for example.

- You may be entitled to space on a departmental server – this is often a good option.

- IT Services' HFS back-up service (http://help.it.ox.ac.uk/hfs/index) is available free of charge to University staff and postgraduates.

   o Can be set to run automatically – so you don't have to remember to do it.

- For non-sensitive data, a synchronization service like Dropbox (http://www.dropbox.com/) can help ensure you always have the latest version of your files, wherever you're working.

- For sensitive data (particularly personal data), it's your responsibility to ensure that whatever system you use has appropriate security. (NB. stricter legal requirements apply for data stored outside the European Economic Area: cloud services like Dropbox may often not be suitable.)

Data sharing and curation

Data is a valuable resource. A lot of effort goes into producing a dataset, and it can often be useful beyond the lifetime of the project that created it.

- Consider ultimately **preserving and sharing** your data by depositing it in a **repository or archive**.

   o Useful to other researchers – and people using and citing your data can help boost your academic reputation.

   o Many archives exist, many of them specializing in data from a particular discipline.

   o ORA-Data is Oxford's own institutional data archive (http://www.bodleian.ox.ac.uk/bdlss/digital-services/data-archiving), providing a home for datasets for which no suitable disciplinary archive exists.

   o The Digital Curation Centre's website (http://www.dcc.ac.uk/) is another useful source of information.

Although data sharing is usually done towards the end of a project, it pays to plan for it from the beginning. Shared data needs to be needs to be **consistently presented** and **properly documented** – that is, accompanied by any auxiliary information another user will need to interpret it properly. If you're working with human subjects (conducting interviews, for example), you'll need to get appropriate consent. It's a lot easier to think about this sort of thing when you first collect or compile the data, rather than having to go back and fill in the gaps later.

Training

- IT Services' IT Learning Programme (http://courses.it.ox.ac.uk/) offers a wide range of courses, on specific software packages and more general skills such as database design.

- The IT Services Research Support team also runs training events (http://research.it.ox.ac.uk/rdmcourses/).

- The Skills Hub (https://weblearn.ox.ac.uk/portal/hierarchy/skills/) offers details of further training provision, including specialized training offered by the libraries and academic divisions.