

Taking care of your research data



Good research data management is an essential part of good research. It has two key goals:

- Making life easier during the research process, by ensuring data is safely stored and can be retrieved when needed
- Extending the life of data beyond the project, by ensuring it remains useful and accessible

Data includes:

- Structured data: tables, spreadsheets, relational databases
- Unstructured data: textual sources, images, recordings, and much more

Start early and think ahead

The sooner you start thinking about data management, the easier it tends to be.

- A good data management plan helps a project run smoothly
- The DMPonline tool offers templates and guidance for creating one: <https://dmponline.dcc.ac.uk/>

During the project

It's worth devoting some time to planning and implementing a solid organisational system for your material.

- Are you using the most appropriate software or other tools for the job?
- The Research Skills Toolkit website and workshops provide an overview of a number of packages: <http://www.skillstoolkit.ox.ac.uk/>
- The IT Services Research Support team can provide technical advice: researchsupport@it.ox.ac.uk
- Colleagues may also have useful recommendations

It's also important to make sure that all data is properly documented. This simply means recording whatever contextual information is needed to ensure it remains intelligible.

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
- Nexus365 offers access to OneDrive for Business, which provides up to 5 TB of cloud-based storage, plus the ability to share files: <https://help.it.ox.ac.uk/nexus365/onedrive-business>
- The LabArchives electronic lab notebook service is a digital alternative to traditional lab notebooks, and also offers unlimited storage space: <https://help.it.ox.ac.uk/research/elN/>
- The HFS back-up service is available to University staff and postgraduates: <http://help.it.ox.ac.uk/hfs/>
- For sensitive data, it's important to ensure that appropriate security is in place – visit the Information Security website for advice: <https://www.infosec.ox.ac.uk/>

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. This benefits the wider research community, and your data being cited helps boost your academic reputation.

- ORA-Data is Oxford's own institutional data archive: <https://libguides.bodleian.ox.ac.uk/ora-data>
- Re3Data.org is an extensive catalogue of other archives: <http://www.re3data.org/>
- For additional information, see the Digital Curation Centre's website: <http://www.dcc.ac.uk/>

Many funders now require that data is preserved and made available for use by other researchers at the end of a project: it's worth checking whether this applies to your research.

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 consistently presented and properly documented
- 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.

Not all data is suitable for sharing openly, but that doesn't always mean it can't be shared at all: many archives offer controlled access options for sensitive datasets.

Help and advice

Plenty of assistance is available for Oxford researchers:

- The Research Data Oxford website is a central source of guidance and information: <http://researchdata.ox.ac.uk/>
- For personalised advice, email the Research Data Oxford team: researchdata@ox.ac.uk
- The Bodleian Data Library provides advice on finding and using data in research: <http://www.bodleian.ox.ac.uk/data>
- Subject librarians can also help: <http://www.bodleian.ox.ac.uk/subjects-and-libraries/subjects/librarians>
- For advice about commercialisation and related intellectual property management, contact Oxford University Innovation: <http://www.innovation.ox.ac.uk/>

Training

- The IT Learning Centre offers both face-to-face courses and access to the LinkedIn Learning video library: <http://help.it.ox.ac.uk/courses/>
- The Bodleian iSkills programme offers a range of workshops and classes: <https://libguides.bodleian.ox.ac.uk/workshops>
- The Skills Hub lists other useful links: <https://weblearn.ox.ac.uk/portal/hierarchy/skills/>

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This document is available online at <http://researchdata.ox.ac.uk/induction>.