# Research Data Management Survival Guide

This document is a guide to effective research data management (RDM) for PGR researchers. Although often ignored, the appropriate management, dissemination and archiving of your data is of crucial importance to the success of your research. This guide outlines the main aspects of successful RDM, as well as listing some useful links to wider sources and further information. Additional guidance is available on the Library website.

#### Year 1

Perhaps the greatest RDM priority at the beginning of your research is establishing methods and standards that you can replicate throughout your study. Setting up effective ways of managing, storing and sharing your data from the outset will ensure that you will know where to find your information if it is needed in the future. Some key points to consider are:

- Find appropriate citation manager software (e.g. <u>EndNote</u>, <u>Mendeley</u>, <u>Papers</u>, <u>Zotero</u>). Training is <u>available</u>. Make sure you start compiling your reference database from the start and check your references when you do automatic imports.
- Before you start collecting your research data, consider how it will be managed and maintained. It is important to identify what <u>Hardware</u> your data will be stored on and what <u>Software</u> you will use to create it. This choice will depend on your research methodology. Ensure that you have access to hardware storage for your personal <u>Backup</u> of data.
- Also consider alternative forms of storing data, such as **Cloud Storage**.
- Many researchers will need to consider <u>Ethical Issues</u> if using personal or confidential data. In this regard, it is especially important to know whether your research is impacted by the <u>Data Protection Act</u>.
- Similarly, it is important to consider whether you have copyright permission for all your data, especially considering the different implications that <u>Copyright</u> now has upon research dissemination.
- Set up a functional and replicable File Directory on all devices on which your
  research data will be stored. In addition, the appropriate <u>Naming and Versioning</u> of
  files and folders will ensure that your data can be easily accessed in the future.
- Make sure you document your data accurately and consistently to aid identification, reuse by others and future replication or validation (<u>Metadata</u>).

### Year 2

Moving into the second year of research, it is likely that you will increasingly consider the <a href="Sharing">Sharing</a> and dissemination of your data. Here are some ways of sharing your data:

- When sharing data with other people within Exeter University, you may want to consider the University File Drop Box.
- Researchers are increasingly using online sharing formats, such as <u>Google Drive</u>, <u>Dropbox</u> and <u>Skydrive</u>. Be wary of using cloud storage for confidential data.

### Year 3

Approaching the end of your research, it is vital that you think about the ways in which your data is going to be shared upon completion of your thesis:

- It is especially important that you read the University of Exeter's information on <a href="Open Access">Open Access</a> and <a href="Online Publication of Your Thesis">Online Publication of Your Thesis</a>.
- You have the option to place a temporary <u>Embargo</u> on your completed thesis so that you are able to publish articles/chapters/books based on your research before it becomes publically accessible.

For more help contact: <a href="mailto:rdm@exeter.ac.uk">rdm@exeter.ac.uk</a>

## **Research Data Management Checklist**



- 1. Learn to review literature effectively
  - a. Identify a suitable reference manager for literature
     <a href="http://as.exeter.ac.uk/library/usingthelibrary/informationforyou/supportingresearch/">http://as.exeter.ac.uk/library/usingthelibrary/informationforyou/supportingresearch/</a>

     /doingyourresearch/refs/
  - b. Understand how the library works
     http://as.exeter.ac.uk/library/usingthelibrary/
  - c. Understand subject specific resources www.exeter.ac.uk/libraryhelp
- 2. Set up a consistent data/file storage and backup system, including:
  - a. Data storage location
    - i. Cloud storage
       http://www.thetop10bestonlinebackup.com/cloud-storage
    - ii. University Storage
      <a href="http://as.exeter.ac.uk/it/files/udrive/">http://as.exeter.ac.uk/it/files/udrive/</a>
  - b. Data backup plan

http://as.exeter.ac.uk/it/files/backup/

- c. Folder organisation
  - i. File names and Versioning
     http://as.exeter.ac.uk/library/resources/rdm/organise/versioncontrol/
- d. Data security

http://as.exeter.ac.uk/it/regulations/infosec/

- i. Encryption
   http://as.exeter.ac.uk/it/regulations/infosec/encryptfiles/
- ii. Data protection

http://www.exeter.ac.uk/dataprotection/

- e. Sharing Data
  - i. <a href="http://as.exeter.ac.uk/library/resources/rdm/access/sharingyourworkwithco">http://as.exeter.ac.uk/library/resources/rdm/access/sharingyourworkwithco</a>
     llaborators/
- 3. Investigate the importance of open access and record keeping
  - Data archiving and open access
     <a href="http://as.exeter.ac.uk/library/resources/rdm/maintain/long-termstorageandpreservation/">http://as.exeter.ac.uk/library/resources/rdm/maintain/long-termstorageandpreservation/</a>
  - b. Metadata

http://as.exeter.ac.uk/library/resources/rdm/organise/supportingdocumentationan dmetadata/