Research data management
Essentials for Higher Degree by Research students

Research data management: Essentials for Higher Degree by Research Students by Monash University Library is licensed under a Creative Commons Attribution-NonCommercial 3.0 Unported License.
Overview

- What do we mean by research data?
- Your responsibilities
- Finding out more – sources of information, advice and technical support
Characterising research data (1)

- Original material generated by research and/or unpublished resources analysed for research in original ways
- Very valuable part of your research
  - Validates your results
  - Enables others to build on your findings
Characterising research data (2)

- New (collected or created by you) and/or existing (sourced from somewhere else)
- Qualitative and/or quantitative
- Multiple formats
Common types of research data

- Statistics and measurements
- Results of experiments or simulations
- Observations e.g. fieldwork
- Survey results – print or online
- Interview recordings and transcripts, and coding applied to these
- Images, from cameras and scientific equipment
- Textual source materials and annotations
Discussion

- What kind of research are you doing?
- What types of data do you think you might generate?
Managing data well is part of being a responsible researcher

- **Australian Code for the Responsible Conduct of Research (2007), Section 2**

- **Monash University Research Data Management Policy and Procedures (including HDR procedures)**

- Research data needs to be kept for a *minimum* of 5 years and managed well
Leaflet

- Pick up a copy from your campus Library
Guidelines provide advice on common concerns

**Guidelines**

These guidelines are primarily for researchers (staff, Higher by Degree Research students and research collaborators from other institutions), and aim to address some common research data management issues experienced throughout the research process and research data lifecycle. The guidelines inform best practice for creating, preparing, storing and sharing data, providing basic advice, as well as pointers to relevant contacts at Monash University and to external sources for further information.

**Consider early**

... consider often ...

... consider context ...

... consider communication

**Data planning**

How a planned approach to data collection, storage and dissemination can help you troubleshoot potential problems early and maximise your impact.

**Ownership and rights**

How Australian copyright law applies to data; staff and student ownership of data under the Monash Intellectual Property Framework; using other people's data respectfully.

**Ethics and consent**

Laws and regulations to protect privacy, confidentiality and cultural sensitivity; ethical data sharing; strategies for de-identifying quantitative and qualitative data.

**Durable formats**

How to choose a good digital file format; the risks of hardware and software obsolescence; finding local protocols for managing non-digital data in print and physical formats.
Data planning checklist


- Helps you develop a plan for how you will manage your data

- Will be of most benefit completed early, but is a work in progress
A. OWNERSHIP, COPYRIGHT, INTELLECTUAL PROPERTY (IP)

Copyright protection

1. ☐ The data is protected by copyright. This will apply to most research data.
2. ☐ The data will be collected, created or compiled
   ☐ in Australia - Australian copyright applies.
   ☐ outside of Australia.

Complete quickly and easily using multi-choice boxes

Ownerships

3. The ownership of the data:
   ☐ the Higher Degree Research Student
   Research by Monash HDR student in the normal course of study, which does not fall into any of the other categories below.
   ☐ Monash University
   I have assigned IP to the University because it falls into one of the categories prescribed under the Statutes and Regulations.
   ☐ Monash University (joint ownership)
   Research conducted in conjunction with a company that another party owns the copyright and IP.
   ☐ Someone else
   Research conducted by someone else.
   ☐ Monash HDR
   Research conducted by a Monash HDR student.

Attach other documents and add supplementary information to create a more comprehensive data management plan

Not sure which option applies to you? Follow the links to relevant resources and people who can help

KEY DOCUMENTS ON THIS TOPIC
- Research data management guidelines: ownership, copyright and IP
- Intellectual Property Framework
- Statute 11.2 IP and Copyright and IP Regulations
- Explanatory Memorandum for IP Statute and Regulations
- Copyright at Monash website
- Practical Data Management: A Legal and Policy Guide [national guide]

Consult the Copyright Advisers or University Solicitors.

Provide a reference number or copy of the agreement.
A common example is research funded by a company that wants to retain copyright/IP.
Effective management of data

- National & institutional policy frameworks
- Copyright & IP in new data
- Copyright & IP when using existing data
- Ethics
- File formats
- Storage & backup
- Sharing & controlling access
- Organising & documenting data
- Publishing & dissemination
- Long-term retention
- Secure destruction
- Leaving Monash

Compliance, Working data, Post project
Developing data management skills

- Skills Essentials seminar: Introduction to data planning
- MPA days
- Other events on request
Other related Skills Essentials seminars

- Introduction to Intellectual Property and Copyright
- Ethics (various modules)
- Software packages for statistics
Advice - Library

- Data Management Coordinator
  researchdata@monash.edu

- Faculty contact librarians
Technical advice – eResearch Centre
https://platforms.monash.edu/eresearch/

- The Monash eResearch Centre (MeRC) complements central IT support
- MeRC focuses on supporting researchers and can help you with
  - Storage and backup
  - Organising data
  - Collaboration
  - Publishing and disseminating datasets
Large Research Data Store (LaRDS)

- LaRDS is Monash’s central research data store
- Use of LaRDS is welcomed and encouraged by all Monash researchers (including HDR students)
- No cost for standard use
- NOT a single service, ‘file system’, or interface – LaRDS is storage infrastructure that supports different tools and access modes
- eResearch Centre staff help you work out which way of accessing LaRDS is best for you
How to get access to LaRDS

- Email merc@monash.edu – include as much of the following information as you can
  - Brief research description (~150 words)
  - Mac / Windows PC / Linux
  - Data size, data type and data security requirements
  - Duration of your project
  - Users - just you / you and your supervisor / group? Anyone outside Monash?
  - How often you will access the data, and from where – office, lab, home, in the field?
  - How you heard about LaRDS
Things to remember

- Your research data is a precious asset
- You need to keep data *at least* 5 years after the end of your project (sometimes much longer)
- Monash University has many services and people that can help you – but it’s up to you to make the most of them
- Find out more through Skills Essentials seminars, web resources and getting in touch