

# RESEARCH DATA MANAGEMENT RESPONSIBILITIES

## SUPPORT FOR RESEARCHERS

The *Australian Code for the Responsible Conduct of Research, 2018* communicates the broad principles and responsibilities that underpin the responsible conduct of Australian research.

In 2019, an accompanying guide, [\*Management of Data and Information in Research\*](#) was published to assist institutions and researchers in understanding and meeting their responsibilities in the area of research data management.

To assist Monash researchers, the Library has created the following resource which presents the “Responsibilities of Researchers” section of the above **Guide**, along with annotations about relevant Library and University services, tools, and information.

For further information or advice on managing and publishing research data, contact the Library at [researchdata@monash.edu](mailto:researchdata@monash.edu)



# MANAGEMENT OF DATA AND INFORMATION IN RESEARCH

A guide supporting the *Australian Code for the Responsible Conduct of Research, 2018*

Source: [National Health and Medical Research Council](#) (CC-BY)

## 3. RESPONSIBILITIES OF RESEARCHERS

Monash University's data management policies are .....  
available here: [monash.edu/library/researchers/  
researchdata/about](https://monash.edu/library/researchers/researchdata/about)

In accordance with the Code, researchers must adhere to their **institution's policies** related to management of data and information, relevant laws, regulations and guidelines, and research discipline-specific practices and standards.

The responsibilities of researchers with respect to management of data and information in research should be clear from the beginning of a research project. The development of a data management plan for this purpose is strongly encouraged.

The Library offers a *Research Data Planning Checklist* which can be used to plan the appropriate management of your research data.  
[bit.ly/MonashRDM\\_Checklist](https://bit.ly/MonashRDM_Checklist)

..... A **data management plan** should be developed as early as possible in the research process and should include, but not be limited to, details regarding:

- physical, network, system security and any other technological security measures
- policies and procedures
- contractual and licensing arrangements and confidentiality agreements
- training for members of the project team and others, as appropriate
- the form in which the data or information will be stored
- the purposes for which the data or information will be used and/or disclosed
- the conditions under which access to the data or information may be granted to others, and
- what information from the data management plan, if any, needs to be communicated to potential participants.<sup>4</sup>

While it may not be practical to keep all the primary material (such as ore, biological material, questionnaires or recordings), durable records derived from them (such as assays, test results, transcripts, and laboratory and field notes) must be retained and accessible.

Planning for the management of data, particularly for retention of research data, should include considerations of practicality and cost.

If not otherwise clarified in institutional policy, researchers should:

4. Guidance on data management plans is provided in the National Statement on Ethical Conduct in Human Research at Chapter 3.1, Element 4.

Not sure how to best document and organise your data to ensure clear records are created and maintained? See our guide on *Documenting and Organising Data*.

[monash.edu/library/researchers/researchdata/guidelines/organising-data](https://monash.edu/library/researchers/researchdata/guidelines/organising-data)

In the event of a data breach, contact the University's Data Protection and Privacy Office. [monash.edu/privacy-monash](https://monash.edu/privacy-monash)

The Monash Research Office reviews and prepares multi-institutional agreements arising from competitive grants. [intranet.monash/researchadmin](https://intranet.monash/researchadmin)

For all other agreements, visit the Office of General Counsel website and submit a Request for Legal Assistance: [monash.edu/legal/request-assistance](https://monash.edu/legal/request-assistance)

Not sure which standard to use for your research? A good starting point is the Digital Curation Centre's guide on disciplinary metadata standards. [dcc.ac.uk/guidance/standards/metadata](https://dcc.ac.uk/guidance/standards/metadata)

Whether data is retained permanently or destroyed after a specific period will depend on the nature of the data. The Library can assist you in determining retention and disposal requirements.

[monash.edu/library/researchers/researchdata/guidelines/retention](https://monash.edu/library/researchers/researchdata/guidelines/retention)

- retain clear, accurate, secure and complete **records of all research data and primary materials**
- retain and be able to produce on request all relevant **approvals, authorisations and other administrative documents**, such as ethics and financial approvals, receipts and consent forms
- where possible and appropriate, allow access to research data and primary materials, in particular, to enable to facilitate the sharing of research data. This access should be facilitated by the use of **indexes or catalogues of data** and information generated, accessed and used during the research
- respect any project-specific conditions of consent or confidentiality obligations
- adhere to project-specific protocols that require measures beyond those required by institutional policy or relevant laws, regulations and guidelines, or research discipline-specific practices and standards
- **report any inappropriate use of or access to or loss of data**, in accordance with applicable institutional policies and, where relevant, other reporting schemes such as the Notifiable Data Breaches scheme<sup>5</sup>
- ensure that agreements are in place to govern circumstances in which researchers leave the project or move from one institution to another during the course of the project
- ensure that **agreements are in place** between institutions for managing responsibilities set out in this guide for data and information in multicentre or collaborative research projects.

In order to optimise project efficiency and avoid information loss and duplication, researchers should employ good management practices. These practices vary across disciplines, but the essential elements include:

- stable storage formats and regular backup to a source external to an individual computer
- version control and other relevant mechanisms for datasets, algorithms, models and software configuration management
- workflow documentation with provenance information for instruments (use and calibration) and software used
- adherence to appropriate national and international **standards for scientific terminology and information encoding**.

Research data can be the subject of Freedom of Information requests, and in such circumstances, there is an expectation that any information that is delivered will be provided in an understandable format and state.

### 3.1 RETENTION AND DISPOSAL

The central aims of retention of data and information are to enable the justification of outcomes of the research and the facilitation of sharing of research data.

Researchers have primary responsibility for deciding which research data and primary materials are candidates for **long-term retention** and wider accessibility.

5. <https://www.oaic.gov.au/privacy-law/privacy-act/notifiable-data-breaches-scheme>

In addition to legal requirements and the requirements of funders, government bodies and publishers, the following criteria should be considered in deciding which research data and primary materials should be retained:

- uniqueness and non-replicability
- reliability, integrity, and usability
- relevance to a known research initiative or collection
- community, cultural or historical value
- economic benefit.

Researchers should consider appropriate approaches to maximising the benefits of valuable data and information in the context of any required or reasonable restrictions on sharing the data or information, such as the character of the consent provided<sup>6</sup>, permissions granted by any data custodians and the requirements of privacy laws. Researchers should be sensitive to the tension created by these competing imperatives.

The Monash supported repository for research data is *Bridges*.

[monash.edu/library/researchers/researchdata/bridges](https://monash.edu/library/researchers/researchdata/bridges)

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In addition to standard publication requirements, options for researchers include publishing or making their research data available through data centres, national and international collections, or through **online repositories maintained by institutions** and research communities.

*Bridges* automatically assigns a Digital Object Identifier (DOI) to ensure outputs can be cited for the long-term. Researchers can also add their ORCID ID to their *Bridges* profile. [bit.ly/BridgesORCID](https://bit.ly/BridgesORCID)

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Researchers should adhere to established national and international standards for data description and structuring to facilitate tracking of references. These standards include using **Digital Object Identifiers** for datasets, **ORCID ID** for researchers, and standard terminology for scientific concepts.

*Bridges* can help make your research data more FAIR - findable, accessible, interoperable, and re-usable. Discover how: <https://doi.org/10.26180/5ec5f492850fe>

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Published research data generally require some kind of online description (i.e. metadata) and should be **findable, accessible, interoperable, and re-usable**, both manually and with automated tools. This requires researchers to include appropriate context (descriptive, technical, methodological, access, and provenance information) either within the data structure or in separate metadata records for the research data.

Monash University supports the publication of research files with Creative Commons licenses, and *Bridges* includes built-in functionality to select the appropriate licence when publishing research data. [monash.edu/library/researchers/researchdata/guidelines/sharing](https://monash.edu/library/researchers/researchdata/guidelines/sharing)

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Researchers should consider the options for licensing of research data in order to provide clear parameters around the use and re-use of this data. When considering licensing for this purpose, the least restrictive option, such as a **Creative Commons Attribution licence**, is encouraged. Researchers should be prepared to justify the use of more restrictive controls.

<sup>6</sup> For information on consent and privacy considerations in research see the [National Statement on Ethical Conduct in Human Research](#).

### 3.2 MANAGING CONFIDENTIAL AND OTHER SENSITIVE INFORMATION

Researchers must exercise care in handling confidential or other sensitive information used in or arising from a research project. Research data and information to which obligations of confidentiality or other sensitivities may apply commonly fall into one of the following categories:

- data or information that is commercial-in-confidence or that is inherently confidential and which has been provided in confidence (e.g. secret and sacred religious or cultural practices, or information on the location of vulnerable species)
- sensitive data or information subject to privacy legislation (e.g. identifiable human medical/ health and personal data or information)
- data or information subject to classification regimes and other controls (e.g. national security information, police records or information and primary materials subject to export controls).

Researchers must ensure that the security and privacy measures that are used for research data and primary materials are proportional to the risks associated with the confidentiality or sensitivities of these data and materials. These measures relate to **storage, access and sharing** of the data and information and should be recorded in a data management plan.

Sensitive research data may be appropriately shared through mediated access arrangements and the application of a risk assessment framework.

### 3.3 ACKNOWLEDGING THE USE OF OTHERS' DATA

The Code and *Authorship: A guide supporting the Australian Code for the Responsible Conduct of Research* require that the work of others is appropriately **referenced and cited** in the presentation, publication or sharing of research. This principle applies to all data and information used as an input to a research project. In referencing and citing the work of others, researchers should follow accepted norms and standards for scholarly literature and can reasonably expect that their work is acknowledged by others.

### 3.4 ENGAGEMENT WITH RELEVANT TRAINING

Researchers should engage with relevant **training and education** provided by or through their institution.

View the [Research Data Storage Options at Monash](#) chart to determine the appropriate storage for your specific needs.  
[monash.edu/library/researchers/researchdata/guidelines/storage](https://monash.edu/library/researchers/researchdata/guidelines/storage)  
Alternatively, talk to the Library – in collaboration with the Monash eResearch Centre and eSolutions, we can help you securely store your data. [researchdata@monash.edu](mailto:researchdata@monash.edu)

View the Library's [Citing and Referencing guide](#).  
*Bridges* allows users to select their preferred, discipline-specific citation format when they are citing a published dataset or item.

The Library offers training and information sessions on research data management.  
Find out more: [monash.edu/library/researchers/researchdata/skills](https://monash.edu/library/researchers/researchdata/skills)