

Policy Title: Research Data Management

Policy Owner: Deputy Vice-Chancellor (Research)

Keywords: 1) Research Data 2) Access 3) Retention and Storage

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1. INTENT

To ensure that research data is stored, retained, made accessible for use and reuse, and/or disposed of according to legal, statutory, ethical and funding bodies' requirements ('compliance obligations'). The research data management policy will be progressively implemented recognising that the target practices will require evolution of data management practices; associated with changes in IT (and other) services. The staged implementation plan is detailed in the associated document "Implementation Plan: Research Data Management".

2. ORGANISATIONAL SCOPE

This policy applies to all ECU staff and Higher Degree by Research (HDR) students involved in research and research-related activities ('researchers').

3. DEFINITIONS

TERM	DEFINITION
"Active phase" means	the phase whereupon data will be collected and analysed. This phase will commence from the start of a project to closure and include everything in between
"Backup" means	the copying and archiving of data so it may be used to restore the original after a data loss event.
"Caretaker" means	someone that will provide a service for the data custodian and will have access to the retained data or datasets.
"Data custodian" means	the individual responsible for the management of a project's research data.
"Data security" means	the protection of data from unauthorized use, access disclosure and destruction, as well as the prevention of unwanted changes that can affect

	the integrity of data. Ensuring data security requires paying attention to physical security, network security and security of computer systems and files.
“Dataset” means	a collection of research data
“Data management” means	all of the actions needed to maintain research data from creation to disposal or permanent preservation over time for current and future generations of users.
“Data management plan” means	the definitive statement of record of the management of a project’s research data created at the start of a project. When required this record should be updated.
“Descriptive Metadata” means	a method to catalogue research datasets by using software systems whose purpose is to make research datasets known to the wider community.
“Metadata” means	identifying information collected with the data to enable cataloguing and searching. It can be used to describe physical items as well as digital items. Metadata is a standard machine- and human-readable format for representing project and data documentation.
“Research” means	the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies and understandings. This could include synthesis and analysis of previous research to the extent that it leads to new and creative outcomes.
“Research data” means	<p>facts, observations or experiences on which an argument, theory or test is based. Data may be numerical, descriptive or visual. Data may be raw or analysed, experimental or observational. Data includes records, files and other evidence, irrespective of their content or form. Data may be digital, non-digital (in print, lab notebooks, field notebooks, questionnaires, audiotapes, videotapes, models, photographs, films, test responses) or primary materials (geological, biological, chemical, etc.).</p> <p>In the creative arts, data includes the creative artefacts of human expression that have emerged via text, visual arts, performing arts and music where both the expressive artefact and the process of creating that artefact are the objects of investigation. Data can be ephemeral and multifaceted and should therefore be thought of as the shifting and constantly re-evaluated set of emergent ideas that find embodiment in the final artwork. For this mode of research, a durable record of the response to the data should be</p>

	maintained, for example, as a visual diary, recording or journal. ¹
“Structural Metadata” means	the data identifying the context of design and specification of data structures; data about the containers of data. The software code used to generate, annotate or analyse the data may also be included.

4. POLICY CONTENT

Please refer to related documents and references detailed in Section 6.

4.1 The responsible conduct of research includes the proper management and retention of the research data, in alignment with the requirements in Section 2 of the *Australian code for the responsible conduct of research* (Australian Government, 2007).

4.2 Research data management is a shared responsibility. Researchers, Research Centres, Schools, and relevant Service Centres work in partnership to implement good practice. Research data generated by an ECU researcher will be owned by the University as defined in the Intellectual Property Policy, unless owned by a third party or are subject to a formal collaborative agreement. As part of this policy, Research Centres, Schools, and relevant Service Centres will provide support to the researcher. Researchers are responsible for:

- i. keeping clear and accurate records of their research methods and data sources;
- ii. identifying the ownership of research data;
- iii. managing the storage of and accessibility to research data according to ethical protocols and relevant privacy legislation;
- iv. ensuring the security of research data;
- v. maintaining the confidentiality of research data when required
- vi. ensuring the research data is captured for retention and disposal management; and
- vii. ensuring, where appropriate, that research datasets are captured for re-use.

4.3 Data Management Planning

- 4.3.1 A Data Custodian must be identified for each research project. In the case of a student research project this must be the supervisor. In all other cases, the chief ECU researcher of the project should be the Data Custodian.
- 4.3.2 For joint research projects that span several institutions, an agreement should be reached at the commencement covering the management of research data within each institution. An ECU staff member must be nominated as the Data Custodian of ECU data.
- 4.3.3 Managing research data in accordance with compliance obligations requires preparation and planning. A Data Management Plan template is available to support this process and to provide a research data

¹ Policy: Management of Research Data and Records, University of Melbourne, Approved 18/05/2011.

management record. The Data Custodian must ensure that a data management plan is completed and implemented.

- 4.3.4 The completed Data Management Plan must be submitted to Records and Archive Management Services (RAMS). The document will be captured to the ECU Recordkeeping System.
- 4.3.5 All researchers participating in a research project must be familiar with the Data Management Plan and subsequently understand the compliance obligations that pertain to the research data and the plans for the research data.
- 4.3.6 The Data Management Plan captured by the ECU Recordkeeping System must be an accurate record and therefore must be updated by the Data Custodian when changes are made.
- 4.3.7 All HDR students on submission of their thesis must also obtain approval of their completed Data Management Plan from their School Associate Dean (Research).

4.4 Data Handling and Documentation

- 4.4.1 The researcher must keep clear and accurate records that describe the project, research methods, data sources and research data. These records comprise the supporting documentation and provide a clear context from which to understand the research.
- 4.4.2 The researcher must ensure that research data are dated and well labelled.
- 4.4.3 The researcher must keep digital research data and supporting documentation in durable and available file formats.
- 4.4.4 The research data and documentation must be handled in such a way that it meets the compliance obligations that pertain to it. Particular attention must be paid to privacy, confidentiality and consent agreements.

4.5 Storage and Sharing

- 4.5.1 Researchers must ensure that digital research data is kept in safe (free from risk), secure (being protected against danger or loss(es)) and backed-up during the active phase of the research.
- 4.5.2 Researchers must ensure that the storage they use meets the compliance obligations of the project. The researcher must ensure that the backup processes meet the compliance obligations of the project.
- 4.5.3 Researchers must ensure that data transfer and sharing mechanisms used meet the compliance obligations of the project.
- 4.5.4 Recipients of shared data are responsible for meeting the compliance obligations that pertain to that data.

- 4.5.5 The researcher must ensure that the digital data storage provider they select (e.g. ECU ITSC or external) must meet the compliance obligations that pertain to their research data.
- 4.5.6 The researcher must discuss the requirements for the secure storage of non-digital research data with the School Dean and/or Institute Director in which they were collected or generated.
- 4.5.7 Researchers must ensure that the Data Management Plan accurately reflects the location of the research data.

4.6 Retention

The University is required to keep a record of research in accordance with the State Records Act of Western Australia 2000 (SRA 2000). Research data and the documentation that provides the context for the interpretation of the research data comprise part of the research record and must be retained in accordance with the periods specified in the Western Australian University Sector Disposal Authority (WAUSDA).

- 4.6.1 The Data Custodian must determine which research data should be retained. Sufficient data should be retained to justify the outcomes of the research and to defend them if they are challenged.
- 4.6.2 The Data Custodian must determine which supporting documentation should be retained to provide a clear context from which to understand the research data.
- 4.6.3 The Data Custodian must identify the research class that best describes the research in accordance with the WAUSDA schedule. The research class determines the period of time for which the research record must be retained.
- 4.6.4 The Data Custodian must ensure that the digital research data and supporting documentation to be retained is captured in the ECU Recordkeeping System, at the close of the project. The ECU Recordkeeping System meets the requirements of the SRA 2000 and manages retention in accordance with the requirements of WAUSDA.
- 4.6.5 The Data Custodian must ensure that non-digital research data is transferred to the ECU Records and Archives Management Services at the close of the project.
- 4.6.6 ECU Records and Archives Management Services will become the caretakers of the retained data and supporting documentation and will manage the retention and archive/disposal of it in accordance with their policies.
- 4.6.7 Researchers must ensure that the Data Management Plan is updated to accurately reflect the location of research data in retention.
- 4.6.8 The researcher is permitted to retain a copy of the research data for their own use as outlined in Section 2.2.2 of the *Australian code for the responsible conduct of research* (Australian Government, 2007).

4.7 Dataset Reuse

Descriptive and structural metadata should be created for all stored data/datasets. Datasets not being generated for reuse are still subject to the same compliance obligations as reuse datasets.

- 4.7.1 The University recognises the significant value in the data generated by its researchers. Research data is valuable to researchers for the duration of their research and may have ongoing value for other researchers or the wider community. Therefore research datasets should be made available for reuse unless restricted from doing so by compliance obligations.
- 4.7.2 Plans for dataset reuse will be made at the start of the project and will be recorded in the Data Management Plan. The Data Custodian will determine which datasets can or must be made available for reuse. ECU Library Services will assist the Data Custodian with descriptive metadata capture and access agreement planning.
- 4.7.3 The Data Custodian will ensure that datasets available for reuse are captured to the appropriate repository with assistance from ECU Library Services. The Data Management Plan must be updated to reflect the location of the dataset.
- 4.7.4 Where dataset reuse is mandated by compliance obligations external to the University, (for example, a funding bodies or publisher stipulation), the Data Custodian, with assistance from ECU Library Services, must act in accordance with the mandated requirement.
- 4.7.5 Researchers must maintain the confidentiality of data during data or datasets reuse as outlined in Section 2.7 of the *Australian code for the responsible conduct of research* (Australian Government, 2007).
- 4.7.6 ECU Research Library Services will become the caretakers of the datasets available for reuse and will manage them accordance with their processes and procedures.

4.8 Researcher Exit

- 4.8.1 If a researcher leaves the University, the original data must remain at the University. If the researcher wishes to continue to use the research data, the researcher may take a copy of the data. Any subsequent research publications and other outputs must acknowledge the University. Similarly, if any University researchers wish to utilise the data generated at the University, any subsequent research publications and other outputs must acknowledge the original researcher.
- 4.8.2 The Data Custodian, on leaving the University, must ensure that their data custodianship is transferred to an appropriate researcher and that the Data Management Plan is updated.

4.9 Research Data Management Plan Template

This policy should be read in conjunction with the Research Data Management Plan template.

5. ACCOUNTABILITIES AND RESPONSIBILITIES

In relation to this policy, the following positions are responsible for the following:

Policy Owner

The Policy Owner the Deputy Vice-Chancellor (Research) has overall responsibility for the content of this policy and its operation in ECU.

All staff/students involved in research and research-related activities

Staff/students are required to comply with the content of this policy and to seek guidance in the event of uncertainty as to its application.

6. RELATED DOCUMENTS:

6.1 The policy is supported by the following Guidelines:

- [Research Data Management Plan Template](#)
- Implementation Plan
- Implementation Plan Roadmap

6.2 Other documents which are relevant to the operation of this policy are as follows:

1. *Australian Code for the Responsible Conduct of Research*, Australian Research Council (ARC), Universities Australia and the National Health and Medical Research Council (NHMRC), Australian Government 2007
2. Principles for the responsible conduct of research at ECU (ac074)
3. Records Management Policy (ad022)
4. Western Australian University Sector Disposal Authority (WAUSDA)
5. Conduct of Ethical Human Research Policy (ac023)
6. Conduct of Ethical Research and Teaching Involving Animals (ac025)
7. Intellectual Property Policy (co002)
8. Institutional Repository (ac081)
9. Research Data Management Plan template
10. Australian National Data Service website (Data Management)
11. Open Access to Research Policy (ac096)

7. CONTACT INFORMATION

For queries relating to this document please contact:

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8. APPROVAL HISTORY

Policy approved by:	Vice-Chancellor
Date policy first approved:	12 June 2008 (AB24/08)
Date last modified:	25 September 2017
Revision history:	<p>09 December 2013 – Revision approved by AB66/13 and the Vice-Chancellor</p> <p>20 November 2015 – minor amendments made to the policy and associated plan template as a result of the academic organisational restructure, approved by the Policy Owner.</p> <p>2 November 2016 – minor amendment – removal of the Data Management Plan template from the policy document; link added.</p> <p>25 September 2017 – Minor administrative change – approved by the Policy Owner, DVC (R).</p>
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