# Management of Research Data, Primary Materials and Information Procedure

# Section 1 - Purpose

(1) This Procedure assists with the implementation of the University's Management of Research Data, Primary Materials and Information Policy.

# Section 2 - Scope

(2) This Procedure applies to all University Staff, Affiliates and Students, visitors and visiting fellows:

a. who undertake research activities
b. manage Research Data, Primary Materials and Information, and
c. provide the necessary infrastructure and support for staff, affiliates and students.

# Section 3 - Policy

(3) Refer to Management of Research Data, Primary Materials and Information Policy.

# Section 4 - Procedure

### General Responsibilities

(4) In accordance with the Australian Code for the Responsible Conduct of Research (the Code), Researchers must adhere to their institution’s policies related to Research Data, Primary Materials and Information, relevant laws, regulations and guidelines, and research discipline-specific practices and standards.

### Data Storage

(5) All researchers are expected to use the University’s available Research data storage repositories to create a corporate record of their Research Data, Primary Materials and Information relevant to their research.

(6) In managing Research Data, Primary Materials and Information more generally, including but not restricted to that in the RDR, researchers should employ good management practices. These practices vary among disciplines, but the essential elements include:

a. stable storage formats and regular backup to a source external to an individual computer
b. version control and other relevant mechanisms for datasets, algorithms, models and software configuration management
c. workflow documentation with provenance information for instruments (use and calibration) and software used, and

d. adherence to appropriate national and international standards for scientific terminology and information encoding.

(7) All researchers are expected to maintain Research Data, Primary Materials and Information in an understandable format and state.

## Research Data Management Plan (RDMP)

(8) On initiating a project, or at the time of receiving a grant or other external funding, researchers must prepare a Research Data Management Plan (RDMP) in accordance with the guidelines that accompany these Procedures. The RDMP must include:

a. Project description
b. Data formats and storage: sources of data, data formats, size, special requirements for data storage
c. Ethics of research data: data classification information, type of sensitive data involved (if applicable), specific ethics requirements from the funding body
d. Data ownership and IP
e. Data retention: retention period, estimated start date for retention
f. Data sharing and reuse: sharing obligations, restrictions or embargos, licensing and data citation.

(9) The RDMPs are strongly encouraged to be updated at each project's milestones (determined by the project or discipline).

(10) For Higher Degree by Research (HDR) student research projects, the student is responsible for creating and updating the RDMP in consultation with his/her supervisor.

a. A final version of the RDMP must be available on RDR at the time of completion of the program.
b. The RDMP need to be reviewed and approved by the student's supervisor during the annual milestones.

(11) Access to the University RDR will not be granted until a RDMP is submitted for all research projects.

(12) Any other requests for access to data storage at the University will not be processed until a RDMP is submitted (for both staff and students research projects).

(13) RDMPs must be updated at any major changes to the project or research data throughout the life cycle of the research project.

(14) RDMPs created or updated during a project will be retained for the period of data retention for the research.

(15) A copy of the RDMP must be placed in the RDR to accompany the associated data as it is collected and placed in the repository.

## Data Management Pre-publication [Low Sensitivity Data]

(16) Researchers are to establish and maintain in their RDR folders, up to date copies of all data sets, analyses and outcomes of analyses, primary materials (where they are electronic), contracts, permits and other approvals necessary to:

a. enable justification of the outcomes of the research, should this be required
b. enable the relevant Faculty to continue the research and meet its obligations to third parties in the case of unexpected departure of staff or students, and
c. facilitate the sharing of research data, as outlined under clause 22 of the Management of Research Data,

Primary Materials and Information Policy.

(17) Researchers need to exercise judgement as to what is placed on the repository. It is not expected that it be a running log of analyses, but that data sets, analyses and outcomes of analyses would be placed in the RDR when they are reasonably mature, and up to date.

(18) Researchers are required to also lodge in the RDR, metadata files that provide sufficient detail for the data and associated analyses to be comprehended by a person independent of the project. Faculties will provide guidance on the form taken by the metadata file commensurate with their requirements and discipline norms.

(19) Exceptionally large datasets (e.g. TB) need not be placed in the RDR, but their location and means of access to the data needs to be identified in an accompanying metadata file lodged in the RDR. Researchers are encouraged to use the University's CloudStor allocation for the storage of such data.

## Data Management Pre-publication [High Sensitivity Data]

(20) Researchers must exercise care in handling confidential or other sensitive information (defined in clause 28 of the Management of Research Data, Primary Materials and Information Policy) used in or arising from a research project.

(21) Storage of high sensitivity data, meeting the requirements for security and confidentiality, should be negotiated on a case-by-case basis with Digital, Information and Technology Management (DITM). Researchers are advised to begin discussions with DITM early, well in advance of the arrival of the data.

(22) The management of high-sensitivity data should otherwise follow the principles as outlined in clauses 16 to 19 of this Procedure.

## Data Management Post-publication

(23) Under the Code, researchers must retain clear, accurate, secure and complete records of all research including research data and primary materials and, where possible and appropriate, allow access and reference to these by interested parties.

(24) Researchers are responsible, where confidentiality conditions allow, for making available all data, analysis scripts and other information necessary to allow the analyses presented in a publication to be repeated by their peers.

(25) The various means for achieving this are use of supplementary materials held by the publisher and made available on request, lodging the data with a public repository such as Dryad with an associated DOI, lodging data with other specialised repositories able to handle specific attributes of the data (e.g. large size) or indicating in the publication that data and/or associated analysis scripts are available on request.

## Researcher's Departure

(26) Researchers must ensure, on departure, that:

a. all data, analyses, outcomes of analyses, digital primary materials and other relevant information is complete and up to date on the RDR
b. all non-digital primary materials are maintained in a durable physical repository, that the means of accessing these primary materials are communicated to the University, and that reasonable requests to access those materials will not be refused
c. if requested, copies of all laboratory books and other primary materials are provided to the University on the understanding that the University will maintain appropriate confidentiality in managing those copies, and
d. they otherwise comply with the provisions of the Management of Research Data, Primary Materials and Information Policy as outlined in clause 41.

### Acknowledging the Use of Others' Data

(27) In accordance with the Australian Code for the Responsible Conduct of Research 2018, researchers are required to appropriately reference the work of others in presentations, publications and sharing of research, following accepted norms and standards for scholarly literature.

### Engagement with Relevant Training

(28) Researchers are expected to take full responsibility in meeting their obligations in regards to responsible practice in research, including for the management of research data, primary materials and other relevant information, the ethical guidelines and regulations governing research, OH&S, and professional ethics regarding the interaction with others engaged in the research.

(29) This responsibility requires researchers to be fully aware of the policies of the University, how they are implemented, and so should engage actively with University initiatives to communicate these policies, procedures, and guidelines, including relevant training.

### Breaches of the Code

(30) Researchers must report any inappropriate use of, or access to, or loss of data, in accordance with applicable institutional policies, requirements of funders, agreement requirements and, where relevant, other reporting schemes, such as the Notifiable Data Breaches scheme.

(31) In instances where research results are challenged, all relevant data and material must be retained by researchers until the matter is resolved. Research records that may be relevant to allegations of research misconduct, (which require investigation related to concerns or complaints about potential breaches as outlined in the Management of Research Data, Primary Materials and Information Policy) must not be destroyed.

# Section 5 - Roles and Responsibilities

| Who | Responsibilities |
|---|---|
| Deputy Vice-Chancellor | Owner of the Procedures, resourcing. |
| Director, Research | Contact for the Procedures; oversight of policy implementation and formulation of associated guidelines. |
| Director, Digital Information and Technology Management | Providing the necessary IT support to enable the University and Researchers to meet their obligations under the Australian Code for the Responsible Conduct of Research 2018. |

# Section 6 - Implementation and Reporting

| Implementation | Responsibility | Timeline |
|---|---|---|
| Procedures to be reviewed | Director, Research | 1 year (formative evaluation post implementation of new Procedures) and at 3 years (summative evaluation) |
| Provision of safe and secure data storage for research data | Digital, Information and Technology Management | Immediately |
| Retention of research data for the retention period identified by the researcher | Digital, Information and Technology Management | Immediately |

| Implementation | Responsibility | Timeline |
|---|---|---|
| Disposal of research data at the end of the retention period | Digital, Information and Technology Management | Immediately |
| Provision of training on research data management | Research Services | Regular, 1-2 times each year |
| Management and monitoring of RDMP | Research Services | Immediately |
| Creating and maintaining RDMP | Researcher | Throughout the life cycle of a research project |
| Responsible management of research data | Researcher | Throughout the life cycle of a research project |
| Provision of platforms for share, reuse and collaboration on research data | Research Services | Immediately |

| Incident | Reporting requirements | Timeframe |
|---|---|---|
| Loss of research data | Incident must be reported to the Chief Information Officer (CIO) | Immediately |
| Breach of the responsible conduct of research | Incident must be reported to the University Research Integrity Office following the Procedures for Dealing with Complaints about Breaches of the Responsible Conduct of Research 2018. | Immediately |
| Security threats to research data, related databases or the research infrastructure | Incident must be reported to the Chief Operating Officer and Vice-President Operations (COO) and Government, Australian Security Intelligence Organisation | Immediately |

# Section 7 - Definitions

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| Academic staff | Persons who are members of the University staff, whether full-time, part-time, contract, sessional or casual who have academic roles in the University. |
| Affiliates | People who are given Emeritus or Honorary appointments (including adjuncts, professional associates, visiting fellows, and visitors) in accordance with the relevant University policies and procedures. |
| Destruction | Means the irreversible obliteration of a collection of Research Data, Primary Materials or Information. Examples of destruction may include shredding or incinerating physical data or primary material collections, permanently deleting all copies of digital files, or rendering data storage media unreadable. |
| Disposal | Any action or process undertaken at the end of a retention period. Disposal does not necessarily mean destruction. Disposal may include permanent archiving, redeployment, transfer of custody or ownership, or destruction of the Research Data, Primary Materials and Information. |
| Externally Funded Research | Externally funded research is usually initiated by a research application through a competitive process, or may be a jointly-initiated collaborative project between the University and an external funder (industry, government, commercial organisation etc), or may follow from a specific request from an external funder for a research project to be undertaken. These activities also include consultancies and fee for service activity where research is a component of the activities provided. |
| Higher Degree Research Candidate | A person (including a member of the University staff) who has accepted an offer to undertake a higher degree by research course including Doctor of Philosophy, Professional Doctorate, Master by Research, Graduate Diploma or Graduate Certificate by Research. |
| Information | Any information that accompanies the research data and primary materials, including that which is necessary for the comprehension or interpretation of those data or materials (commonly referred to as metadata – see below). |
| Metadata | Structured or schematised information about the attributes of an item (Research Data, Primary Materials or any subsets of them) which enables that item to be identified, retrieved and managed over time. |

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| Notifiable Data Breaches | A reporting scheme that requires any organisation or agency the Privacy Act 1988 covers to notify affected individuals and the Office of the Austalian Information Commissioner (OAIC) when a data breach is likely to result in serious harm to an individual whose personal information is involved. |
| Primary Materials | Objects (original physical, creative, visual or electronic) acquired through a process of scholarly investigation from which Research Data may be derived. |
| Professional Staff | Persons who are members of the Staff of the University, whether full-time, part-time, contract, sessional or casual who have professional, technical and administrative roles in the University. |
| Research Data | Any data collected for the purposes of research, including associated primary materials (laboratory books, samples, video, photographs, creative works) and associated information required to understand or interpret the data, and any information pertaining to approvals for collection of the data or samples from which the data were obtained. |
| Research Data Management Plan | A Research Data Management Plan (RDMP) describes the data that are generated, acquired and used during the course of the research project and outlines how they are managed, where are data stored, plans for sharing and preserving the data and any restrictions that may need to be applied. |
| Researcher | Anyone who undertakes research at the University including, Staff (academic and professional) Higher Degree by research candidate, students and affiliates. |
| Retention Period | The time period that the data needs to be retained. Researchers have primary responsibility for deciding the retention period. See “Management of Data and Information in Research Policy” for more details. |
| Student | A person (who may also be Staff) who has accepted an offer to undertake a course of study or a unit offered by the University, whether offered directly by the University or through its partner institutes. |
| Supervisor | A person with responsibility for the Higher Degree by Research candidate’s supervision and progression. |
| University | University of Canberra (ABN 81 633 873 422) established pursuant to the University of Canberra Act 1989. |
| Visitor | Any person conferred that title by the University. |
| Visiting Fellow | Includes any person conferred that title by the University, and/or, any person given access to University resources for the purposes of completing academic study, education, research or development, regardless of collaboration, or not, with the University. This Policy is intended to apply to visitors during the period of their appointment, and beyond, where IP was generated during the appointment (and where research data is IP). |

## Status and Details

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| **Effective Date** | 27th March 2023 |
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