

RESEARCH DATA MANAGEMENT PROCEDURES 2015

Issued by: Deputy Vice Chancellor (Research)

Date: 1 December 2014

Last amended: 13 June 2018 (administrative amendments only)
15 August 2018 (data security amendments)

Signature:

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1 Purpose and application

- (1) These procedures are to give effect to the [Research Data Management Policy 2014](#) (“the Policy”).
- (2) These procedures apply to University staff, research students and affiliates.

2 Commencement

These procedures commence on 5 January 2015.

3 Interpretation

Words and phrases used in these procedures and not otherwise defined in this document have the meanings they have in the Policy.

Note: See clause 6 of the [Research Data Management Policy 2014](#).

Cloudstor is the name of a secure data transfer service, located in Australia, operated by Australia’s Academic and Research Network (AARNet, <http://www.aarnet.edu.au>) and supported by University ICT. <https://cloudstor.aarnet.edu.au/>

Cloudstor+ is the name of a secure file sharing and cloud storage service that is located in Australia and is operated by Australia’s Academic and Research Network (AARnet, <http://www.aarnet.edu.au>). <http://cloudstor.aarnet.edu.au/plus/>

confidential data means data containing information that should not be freely disclosed or made available to unauthorised parties. It includes, but is not limited to:

- data containing personal information as defined in section 4 of the [Privacy and Personal Information Protection Act 1998 \(NSW\)](#) or health information as defined in section 6 of the [Health Records and Information Privacy Act 2002\(NSW\)](#);

Note: See also *Privacy Policy 2017*

- unpublished research;
- commercial-in-confidence information
- locations of endangered species or ecological communities.

Note: For full list of data definition classifications, see https://staff.ask.sydney.edu.au/app/answers/detail/a_id/954#protect.

| | |
|----------------------------------|---|
| data documentation | means digital or physical documents (e.g. data dictionaries, experiment protocols) that provide context for research data, and enable research data to be discovered, interpreted and understood by other researchers. |
| Dean | means the Executive Dean or Dean of a faculty or the Head of School and Dean of a University school. |
| discipline repository | means an online digital archive for collecting, preserving and disseminating scholarly outputs from a particular subject area. Discipline repositories accept submissions of content from researchers from across multiple institutions. |
| eNotebook | means the electronic lab notebook operated by LabArchives that is accessed by Unikey login and supported by University ICT. Note: See https://informatics.sydney.edu.au/rdm/enotebooks/ |
| Faculty | means a faculty or a University school. |
| Faculty Liaison Librarian | means a specialist information professional who is assigned to a faculty, school or department to support and facilitate the research and teaching needs of that unit. |
| institutional repository | means an online digital archive for collecting, preserving and disseminating the scholarly output of an institution. |
| IT Manager | means a specialist ICT manager who is assigned to a portfolio of faculties, centres and professional services units, to provide ICT services and support. |
| legacy research data | means those research data retained by the University that are the work of a researcher who has left the University and which are at risk of becoming unusable due to inadequate documentation, management or preservation. |
| open access | means permanent and free online access to a research output, including research datasets. |
| RDS | means Research Data Store, which is the University's central research data storage service. The Research Data Store is a centralised, secure digital research data storage service that is managed by University ICT. |

| | |
|-------------------------------------|--|
| Research Data Australia | is the name of a national registry of research data metadata. See http://researchdata.ands.org.au/ |
| Research Data Registry | means the University's online digital registry for collecting, curating and advertising descriptive and administrative information about the research datasets held by it. |
| University supported systems | means computing infrastructure (software and hardware) that the University provides, manages or licenses for use by staff, students and affiliates for research, teaching and administrative purposes. |

4 Local provisions

These procedures should be read in conjunction with the applicable local provisions.

5 Research data management plans (RDMP)

- (1) **The Office of the Deputy Vice Chancellor (Research)** will establish and maintain a register of RDMPs.
- (2) **Chief investigators undertaking externally funded research** with funds from a government, not-for-profit or commercial entity must create and register an RDMP following the announcement of the success of the grant.
 - (a) Research funds will not be released until an RDMP is registered.
- (3) **Chief investigators undertaking University funded research** must create and register an RDMP as specified in the conditions and guidelines for the award.
- (4) **Chief investigators undertaking research** using University facilities should create and register an RDMP.
- (5) **Research students, in consultation with their research supervisor(s)**, must create and register an RDMP.
- (6) RDMPs must be created and registered on forms specified by the Office of the Deputy Vice Chancellor (Research).

Note: See also clause 9 of the [Research Data Management Policy 2014](#). The RDMP form is available from the Research Data Management Guidelines website: <https://library.sydney.edu.au/research/data-management>

6 Storage of research data and primary materials

- (1) Researchers should:
 - (a) store digital research data, associated records and documentation on University supported systems (e.g. the RDS, eNotebook);
 - (b) digitise physical research data, records and primary materials where possible, and store them on University supported systems; and
 - (c) store physical data, primary materials and research records in their laboratory or office, or in shared storage spaces within the Faculty or School.
- (2) Researchers must ensure that:
 - (a) confidential digital research data are encrypted in transit and at rest.

Note: Most University supported systems conform with this requirement, but data being transferred to the RDS must be encrypted using an approved encryption tool (http://staff.ask.sydney.edu.au/app/answers/detail/a_id/982)

- (b) portable or removable storage devices (such as laptop computers, external hard drives and USB flash drives) containing confidential research data are encrypted;

Note: See https://staff.ask.sydney.edu.au/app/answers/detail/a_id/951/

- (c) if confidential data is sourced from a third party, ethical and contractual approval (as appropriate) is obtained from the data provider before the data are stored on a University supported system; and
- (d) confidential physical research data, records and primary materials are stored securely, with access to them limited to authorised personnel.

7 Transfer of data and primary materials

- (1) To transfer digital research data or records, researchers should:

- (a) use the Cloudstor data transfer service to securely transfer large individual files;
- (b) use Cloudstor+ to share multiple files or research datasets; and

Note: See the ICT website for more information
http://staff.ask.sydney.edu.au/app/answers/detail/a_id/830/kw/cloudstor

- (c) consider the risks before using online file transfer and sharing services (such as DropBox) to transfer research data or records containing personal, confidential or commercially sensitive information.

Note: While services such as DropBox are convenient, there are information security risks to be considered, especially when storing or transferring data containing participants' personal information, or other sensitive information. If data is stored overseas, it may be subject to local data surveillance laws.

- (2) Transfers of research data or records containing personal, confidential or commercially sensitive information may require, or may already be subject to, restrictions under a contract (such as a material transfer agreement or confidentiality agreement), conditions given under ethics approval or underlying privacy obligations.

- (a) Chief investigators and research students (in consultation with their supervisors) should seek advice before transferring such materials into or out of the University; and
- (b) ensure that ethical, contractual and privacy approvals (as appropriate) have been obtained.

Note: For advice about transferring confidential or commercially sensitive information, contact Commercial Development and Industry Partnerships (CDIP):
http://sydney.edu.au/sydnovate/staff/agreements/material_transfer.shtml

Note: For advice about transferring participants' personal information, contact Research Integrity: http://sydney.edu.au/research_support/integrity/

- (3) Researchers and research students (in consultation with their supervisors) should contact the relevant IT Manager for advice on the secure transfer of digital data.

Note: See the ICT website: <http://s1.sydney.edu.au/ict/contact/it-managers.shtml>

8 Preferred formats

- (1) Wherever possible, chief investigators and research students should choose digital file formats that are:
 - (a) widely used within their disciplines;
 - (b) publicly documented, i.e. the complete file specification is publicly available;
 - (c) open and non-proprietary;
 - (d) endorsed and published by standards agencies such as the International Organisation for Standardization (ISO) (e.g. ISO 19005-1:2005 for PDF/A); and or
 - (e) self-documenting i.e. the file itself can include useful metadata.
- (2) Wherever possible and appropriate, physical research data, primary materials and research records should be digitised in a preferred format, to minimise the risk of loss or damage, and minimise physical storage requirements.

Note: Examples of digitisation include scanning documentation, manuscripts or participant consent forms to PDF format; or photographing physical materials and storing them in TIFF format.

9 Data documentation and metadata

- (1) Metadata has the meaning given in clause 8 of the [Policy](#).
- (2) Data documentation and metadata requirements will differ depending on the discipline and the nature of the research.
- (3) Chief investigators and research students should consider:
 - (a) developing and documenting common folder and file-naming conventions, and communicating these to researchers in their group or to their research supervisor;
 - (b) depositing completed research datasets into a discipline or institutional repository at the end of the research project; and
 - (c) creating a record for their research project and associated research datasets in the University's Research Data Registry at the end of the project.
- (4) Chief investigators and research students (in consultation with their supervisors) should contact the Library's Research Data Manager for advice on data documentation and metadata, and creating records in the University's Research Data Registry.

Note: Contact the Library's Research Data Manager
<https://library.sydney.edu.au/research/data-management>

10 Sharing research data and metadata

- (1) Chief investigators or research supervisors (with the consent of their research student(s) where required) should make completed research datasets openly available for re-use in accordance with the [Policy](#) and these procedures, unless this is prevented by the requirements of legislation or University policy, or ethical, contractual, or confidentiality obligations.

- (2) Sharing data does not necessarily mean open access. Options include:
- (a) *Restricted access*: a record of the dataset is created in the Research Data Registry. Public access is restricted to the research data metadata only;
 - (b) *Mediated access*: a record of the dataset is created in the Research Data Registry. Public access is restricted to the research data metadata only. Access to the research data and materials is mediated by the chief investigator, and may be contingent on certain terms and conditions being met by the applicant (e.g. human research ethics clearance); or
 - (c) *Open access*: The dataset is uploaded to an open access discipline or institutional repository and made accessible to other researchers and to the public under an appropriate licence. A record may also be created in the Research Data Registry.

Note: See also clause 11.

- (3) Chief investigators and research students (in consultation with their supervisors) should contact the Library's Research Data Manager for assistance with sharing research datasets at any stage during or following their research project.

Note: Contact the Library's Research Data Manager:
<https://library.sydney.edu.au/research/data-management>

11 Open access to research datasets

- (1) Open access research datasets must be shared under an appropriate licence.
- Note:** Using a licence enables the party sharing the dataset and the party using the dataset to understand their rights and responsibilities, and enables the protection of intellectual property and other rights.
- (2) Before enabling open access to research datasets, researchers and research students (in consultation with their research supervisors) should consider whether:
- (a) the conditions of the research funding agreement, contract or human research ethics clearance protocol prevent or require the sharing of research data;
 - (b) the dataset contains research participants' private or confidential information that cannot be de-identified or shared;
 - (c) a record of invention has been created at any stage in the research project;
- Note:** See also [Intellectual Property Policy 2016](#)
- (d) the dataset has the potential to support a patent or other registered intellectual property rights such as plant breeders' rights, or a software licence; or
- Note:** See also [Intellectual Property Policy 2016](#)
- (e) the dataset contains confidential or commercial-in-confidence information that cannot be shared.
- (3) Researchers and research students (in consultation with their research supervisors) should seek advice from the Library's Research Data Manager in relation to sub-clause 11(2) above, to ensure they are able to make datasets available on open access.

Note: Contact the Library's Research Data Manager:
<https://library.sydney.edu.au/research/data-management>

- (a) The Research Data Manager may refer the researcher or research student to other specialist advisory services within the University.
Note: See Schedule 1 of these Procedures for a list of contacts.
- (4) The University recommends the application of a Creative Commons Attribution Non-commercial Share Alike License 4.0 (CC BY-NC-SA)
Note: See <http://creativecommons.org/licenses/by-nc-sa/4.0/deed.en>
- (5) Alternative licences may be selected or developed to cover other data sharing requirements, in consultation with Copyright & Advisory Services.
Note: Contact Copyright and Intellectual Property Advisory Services:
<https://library.sydney.edu.au/help/copyright/>
- (6) There are established open access data sharing practices that underpin existing research and publication processes, including (but not limited to):
- (a) sharing supplementary datasets to support research publications, as required by the publisher;
 - (b) routine deposit of completed datasets into institutional or discipline specific repositories (e.g. genome data sequences are commonly deposited in the repository operated by National Center for Biotechnology Information and known as GenBank); and
 - (c) sharing datasets to comply with the requirements of research funding agreements.
- (7) Where open access data practices of the kinds referred to in sub-clause 10(6) are used and no licence is specified, licences of the kinds referred to in sub-clauses 11(4) and 11(5) should be applied.
Note: Contact Copyright and Intellectual Property Advisory Services for advice:
<https://library.sydney.edu.au/help/copyright/>
- (8) Chief investigators and research students (in consultation with their research supervisors) should note their intention to share research datasets in their RDMP.
- (9) Researchers should make a recommendation to their Head of School or Associate Dean (Research) to share large-scale project, department or faculty-level research datasets, or legacy research datasets, in appropriate circumstances.
- (10) Chief investigators should note whether (or not) research datasets have been shared, the location and the licence under which they have been shared in the final report for any internal or external research grant.
Note: Contact Research Grants and Contracts for advice:
http://sydney.edu.au/research_support/funding/rgaf_contacts.shtml
- (11) Open access research datasets must only be shared consistently with the [Open Access to University Research Policy 2015](#).

12 Reporting and review of policy, procedures and local provisions

- (1) The University will provide research data management planning information to faculties, centres and other units, to assist infrastructure planning, service development, research reporting, and other University business as required from time to time, and in accordance with clause 13 of the [Policy](#).
- (2) The Deans will establish research data management reference groups.

- (3) Research data management reference groups will include:
 - (a) the relevant Associate Dean(s) (Research) or nominee (Chair);
 - (b) Faculty researchers with disciplinary expertise (as nominated by the Chair);
 - (c) the relevant IT Manager(s) (or equivalent);
 - (d) the relevant Faculty Liaison Librarian(s);
 - (e) the Faculty Research Manager(s) (or equivalent); and
 - (f) other members as determined by the Chair.
- (4) Where the research data management reference group includes more than one Associate Dean (Research), the group will elect one to act as Chair.
- (5) The research data management reference group will develop local provisions.
- (6) The research data management reference group will meet at least annually to:
 - (a) report to the relevant Deans and Deputy Vice Chancellor (Research) on the operation of the [Policy](#), these procedures and local provisions;
 - (b) review the [Policy](#), these procedures and local provisions and make recommendations to:
 - (i) the Deputy Vice Chancellor (Research), for amendments of the [Policy](#) and these procedures; and
 - (ii) the relevant Deans, for amendments to the local provisions.
- (7) In addition the research data management reference group will convene as required to:
 - (a) coordinate any faculty requests to the Office of the Deputy Vice Chancellor (Research) for reporting on research data management related matters for use by the Faculty or Faculties;
 - (b) respond to requests from the Office of the Deputy Vice Chancellor (Research) for regular and *ad hoc* reporting; and
 - (c) advise the relevant Deans, Heads of Schools or Disciplines, researchers, research supervisors and research students on research data management related matters.

NOTES

Research Data Management Procedures 2015

Date adopted: 1 December 2014

Date amended: 8 June 2017

13 June 2018

15 August 2018

Date commenced: 5 January 2015

Administrator: Manager, Research Strategy and Policy Framework

Review date: 29 November 2018

Related documents:

LEGISLATION

Copyright Act 1968 (Cth)

Electronic Transactions Act 1999 (Cth)

Privacy Act 1988 (Cth)

Therapeutic Goods Act 1989 (Cth)

Government Information (Public Access) Act 2009 (NSW)

Health Records and Information Privacy Act 2002 (NSW)

Human Tissue Act 1983 (NSW)

Privacy and Personal Information Protection Act 1998 (NSW)

Protection of the Environment Operations Act 1997(NSW)

Research Involving Human Embryos Act (2003)

State Records Act 1998 (NSW)

University of Sydney Act 1989

University of Sydney By-Law 1999 (NSW) (as amended)

UNIVERSITY LEGISLATION AND POLICIES

Affiliates Policy

Charter for Academic Freedom

External Interests Policy 2010

Information Security Policy

Open Access to University Research Policy 2015

Research Agreements Policy

Research Code of Conduct 2013

Supervision of Research Higher Degree Students Policy 2013

University of Sydney Enterprise Agreement 2018-2021

*University of Sydney (Higher Degree by Research) Rule 2011
(as amended)*

Intellectual Property Policy 2016

*University of Sydney (Policies Development and Review) Rule
2011*

Privacy Policy 2017

Recordkeeping Policy 2017

University Recordkeeping Manual

EXTERNAL DOCUMENTS

Australian Code for the Responsible Conduct of Research 2007 (NHMRC/ARC)

Excellence in Research Australia 2010 Submission Guidelines (Australian Research Council)

NHMRC National Statement on Ethical Conduct in Human Research 2007 (especially section 3.2: Databanks)

NHMRC Revised Policy on the Dissemination of Research Findings

NHMRC Statement on Consumer and Community Participation in Health and Medical Research

NSW General Retention and Disposal Authority GA28

NSW General Retention and Disposal Authority Education: Higher and further education records (GA47)

OECD Principles and Guidelines for Access to Research Data From Public Funding

Values and Ethics: Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research (NHMRC 2003)

Wellcome Trust Joint Statement on Sharing Research Data to Improve Public Health

AMENDMENT HISTORY

| Provision | Amendment | Commencing |
|-------------------|--|-------------------|
| Various | Updated hyperlinks and references to websites | 12 July 2016 |
| Notes | Updated references to <i>Enterprise Agreement</i> and <i>Intellectual Property Policy 2016</i> | 12 July 2016 |
| 3 | Amendments relating to organisational design changes | 8 June 2017 |
| Related documents | Replace <i>External Interests Policy 2012</i> with <i>External Interests Policy 2010</i> | 13 June 2018 |
| Related documents | Replace <i>Information Security Policy 2010</i> with <i>Information Security Policy</i> | 13 June 2018 |
| Related documents | Replace <i>Research Agreements Policy 2011</i> with <i>Research Agreements Policy</i> | 13 June 2018 |

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|-------------------|--|----------------|
| Related documents | Replace <i>University of Sydney Enterprise Agreement 2013-2017</i> with <i>University of Sydney Enterprise Agreement 2018-2021</i> | 13 June 2018 |
| Related documents | Replace <i>University of Sydney (Policies Development and Review) Rule 2012</i> with <i>University of Sydney (Policies Development and Review) Rule 2011</i> | 13 June 2018 |
| Related documents | Replace <i>University Privacy Policy 2013</i> with <i>Privacy Policy 2017</i> | 13 June 2018 |
| Related documents | Replace <i>University Recordkeeping Policy</i> with <i>Recordkeeping Policy 2017</i> | 13 June 2018 |
| Related documents | Replace <i>University Recordkeeping Manual</i> with <i>Recordkeeping Manual</i> | 13 June 2018 |
| Related documents | Replace <i>NSW General Retention and Disposal Authority GDA23</i> with <i>NSW General Retention and Disposal Authority Education: Higher and further education records (GA47</i> | 13 June 2018 |
| 3 | Definition of confidential data added Definition of ELN deleted and replaced with definition of eNotebook Definition of University supported systems added | 27 August 2018 |
| 6(1)(a) | Reference to ELN replaced with reference to eNotebook | 27 August 2018 |
| 6(1)(b) | Reference to University managed research data storage infrastructure replaced by reference to University supported systems | 27 August 2018 |
| 6(2) | New subclause added | 27 August 2018 |
| 7(2) | References to confidentiality agreements, ethics approval and privacy obligations added New subclause (b) added | 27 August 2018 |
| 11(2) (c) and (e) | Notes added | 27 August 2018 |
| 11(9) | Reference to Associate Dean (Research) added | 27 August 2018 |
| 11(11) | New subclause added | 27 August 2018 |
| Schedule 1 | Hyperlinks updated Reference to State Records Act added Reference to training and support for digital research tools (Sydney Informatics Hub) added | 27 August 2018 |

SCHEDULE 1

CONTACTS FOR RESEARCH DATA MANAGEMENT TRAINING AND SUPPORT

Chief investigators and research students (having first consulted with their supervisors) are encouraged to contact the following for advice and assistance with research data management training and support.

| Requirement | Key contact | Addresses and links |
|---|---|---|
| Advice on Research Data Storage services, especially regarding the storage of large-scale datasets. | IT Manager | See the ICT website: http://s1.sydney.edu.au/ict/contact/it-managers.shtml |
| Transferring data and materials into the University from another institution or out of the University to another institution. | Commercial Development and Industry Partnerships; Research Integrity | See the Commercial Development and Industry Partnerships website http://sydney.edu.au/cdip/ See the Research Integrity website: http://sydney.edu.au/research_support/integrity/ |
| Compliance with State Records Act(1988) s.21(2)(c) for transferring research records out of the University | Archives and Record Management (ARMS) | See ARMS website at https://intranet.sydney.edu.au/contacts-campuses/services/archives-records-management.html |
| Advice, training and support on use of digital research tools and platforms (eNotebook, REDCap, RDS, GitHub) | Digital Research Support Officers, Research Portfolio (Sydney Informatics Hub) | See Sydney Informatics Hub website: https://informatics.sydney.edu.au/rdm/ |
| Describing and documenting research datasets. | Research Data Manager; University Library | See the Research Data Management Guidelines website: https://library.sydney.edu.au/research/data-management/ |
| Sharing research datasets, depositing completed digital datasets in the appropriate institutional or discipline repository; including appropriate access permissions or restrictions. | Research Data Manager, University Library | See the Research Data Management Guidelines website: https://library.sydney.edu.au/research/data-management/ |
| Interpreting data ownership clauses in research grants, research collaboration agreements and contracts | Manager, Research Contracts, Research Portfolio | See the University Research Support Website, Research Grants & Contracts: http://sydney.edu.au/research_support/funding/rgaf_contacts.shtml |

| Requirement | Key contact | Addresses and links |
|--|---|---|
| General advice on copyright and IP in research data; selecting an appropriate license for open access datasets. | Manager, Copyright & IP Advisory Services | See the Copyright website: https://library.sydney.edu.au/help/copyright/ |
| Advice on material transfer agreements, patents and other registered IP rights; advice on selecting alternative licenses and/or terms of use for open access datasets. | Commercial Development and Industry Partnerships | See the Commercial Development and Industry Partnerships website http://sydney.edu.au/cdip/ |