

RESEARCH DATA MANAGEMENT POLICY AND PROCEDURE



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1 PURPOSE

- 1.1 The purpose of the Research Data Management Policy and Procedure is to provide guidance to CQUniversity researchers and research higher degree candidates on the responsible recording, management and protection of research data. In providing this Policy and Procedure CQUniversity seeks to ensure that research data is retained appropriately in order to justify the outcomes of the research and to defend them if they are challenged.
- 1.2 CQUniversity researchers and the University jointly share responsibility to ensure and implement compliance with this Policy and Procedure.
- 1.3 CQUniversity also recognises the value of data sharing in order to promote research work, publications and the University's contribution to research.

2 SCOPE

- 2.1 This Policy and Procedure applies to researchers and research higher degree candidates at CQUniversity

3 POLICY STATEMENT

- 3.1 CQUniversity is committed to conducting high quality research which is robust, repeatable and transparent.
- 3.2 Research conducted at and by CQUniversity researchers and research higher degree candidates will comply with the principles contained in the Australian Code for the Responsible Conduct of Research, and in accordance with relevant National Statements regarding ethical research.
- 3.3 Data stored by CQUniversity will be retained in accordance with national guidelines for retention and destruction of research data and any additional contractual or legal requirements.

- 3.4 Subject to any applicable law or agreement with a third party, CQUniversity asserts ownership of research data and materials created or collected by staff members in the course of their employment with the University, or by visitors engaged in activities using CQUniversity resources.
- 3.5 CQUniversity does not assert ownership of research data and materials created or collected by CQUniversity research higher degree candidates except where there is a written agreement between the University and the Candidate assigning ownership to the University. The University does, however, require that research higher degree candidates accept University guidance in the appropriate handling and storage of research data to ensure that research outcomes can be justified and defended.
- 3.6 CQUniversity will provide guidance to its researchers and research trainees through this Policy and Procedure on the appropriate handling of research data such that the outcomes of the research can be justified and defended, and to facilitate the availability of data for further research where practical.
- 3.7 CQUniversity will assist researchers to access adequate storage facilities to ensure the safe and secure storage of research data created by University researchers and research higher degree candidates.
- 3.8 Where CQUniversity researchers or research higher degree candidates contribute to research data as a named investigator a Research Data Management Plan will be submitted to the University outlining storage arrangements, access, and ownership of the research data.
- 3.9 Where research data or materials are created in collaboration with another institution or individuals external to CQUniversity, a written agreement must be formed between the parties which sets out the ownership, storage, access and management of the research data.
- 3.10 Training will be provided to CQUniversity researchers and research higher degree candidates to facilitate compliance with this policy.
- 3.11 CQUniversity will facilitate access to data and data sharing, as appropriate, in accordance with current national principles.
- 3.12 If a CQUniversity researcher leaves CQUniversity and moves to another institution an Agreement may be formed to transfer research data or materials to that institution, subject to this Policy and Procedure. Any Agreement must also recognise and comply with the requirements of the CQUniversity Intellectual Property Policy and Principles.

4 PROCEDURE

- 4.1 Data arising during research conducted at CQUniversity must be recorded in a durable and appropriately referenced form in a storage facility approved by the University.

Data Management Responsibilities

- 4.2 At all times CQUniversity requires researchers and research higher degree candidates to conduct research in accordance with the Australian Code for the Responsible Conduct of Research, and the University's Code of Conduct for Research.
- 4.3 Researchers are required to complete a Research Data Management Plan for each new research project.
- 4.4 The Research Data Management Plan will set out:
 - a) Where the research data and materials will be stored;
 - b) In what form the research data and materials will be stored (identified, coded, de-identified) and the location of the code key, if any;
 - c) The duration for which research data and materials will be stored and the reason for the nominated duration;
 - d) Who will have access to the research data and materials, including any third parties;

- e) Who will own the research data and materials, and do any limitations apply with regards to publication of results or sharing of data;
 - f) Any limitations or requirements for the sharing of research data and materials imposed by third parties such as funding agencies;
 - g) Whether the research data and materials are required to be submitted to an external party (e.g. as a contractual requirement of the Funding Agreement or Publisher).
- 4.5 Researchers are required to submit their Research Data Management Plan to the Research Division. Where a research project includes multiple researchers the first-named researcher is responsible for completing and submitting the Research Data Management Plan on behalf of the research team.
- 4.6 Research Higher Degree Candidates are required to complete their Research Data Management Plan at the time of completion of their Confirmation of Candidature, and submit this to the Research Division.
- 4.7 Researchers and Research Higher Degree Candidates are required to review their Research Data Management Plan annually and provide a revised Plan, as necessary.
- 4.8 A final Research Data Management Plan is required to be submitted with the Final Report on a research project, or the final submission of the thesis to the University.

Data Management Register

- 4.9 The University Research Data Management Register will collate and store Research Data Management Plans.
- 4.10 The Register will include information about any confidentiality, patent, contractual, ethical or privacy considerations that apply to the research, which may impact any request for access.
- 4.11 The CQUniversity ACQUIRE repository will provide citation information about completed data sets and the access and availability of the research data or materials.

Data Storage

- 4.12 Research data, materials and related records should be stored securely in at least three different locations to ensure adequate protection. CQUniversity will assist researchers to access a location for centralised storage of research data, materials and related records. Researchers are also encouraged to store electronic copies of research data and materials in a secure location on a shared drive. Researchers may retain an active copy of research data and materials on a local computer or portable hard drive.
- 4.13 Original or master copies of research data and materials should not be stored on portable hard drives, USB devices or laptops.
- 4.14 A Master copy of all research data and materials must be stored on CQUniversity approved data storage infrastructure.
- 4.15 [Appendix A](#) sets out a matrix of available and suggested storage locations for different types of research data and materials.
- 4.16 At end of a research project all research data and materials created by CQUniversity staff will be owned by CQUniversity unless subject to a written agreement between CQUniversity and another party.
- 4.17 Upon conferral of the Research Higher Degree one complete copy of the Candidate's dataset will be submitted by the Candidate to the University to be retained in secure storage, for the requisite retention period.

Retention and Disposal of Research Data and Materials

- 4.18 Research Data and Materials must be retained for at least the minimum periods advised by the Queensland Archives University Sector Retention and Disposal Schedule and any requirements stipulated by ethical approvals or contractual agreements.

- 4.19 As a minimum, research data and materials should be retained for at least five years after the date of last publication.
- 4.20 Research which has community or heritage value should be retained indefinitely, and submitted to national collections, as appropriate.
- 4.21 Research data and materials must not be disposed of unless written permission for destruction has been provided by the University.

Research Data Access and Re-Use

- 4.22 Researchers engaged in publicly-funded research must adhere to the access requirements of the applicable funding body. Specifically, research funded by the Australian Research Council must be managed in accordance with the ARC Open Access Policy; research funded by the National Health and Medical Research Council must be managed in accordance with the NHMRC Open Access Policy.

5 RESPONSIBILITIES

Compliance, monitoring and review

- 5.1 The Deputy Vice-Chancellor (Research) is responsible for ensuring the policy document complies with relevant legislation and University requirements, and it is implemented and monitored, e.g. adherence to the policy document, changing policy environment or emerging issues; and is reviewed to evaluate its continuing effectiveness, e.g. external and internal compliance, achieving its purpose, relevancy.

Reporting

- 5.2 The Research Division, in cooperation with the Information and Technology Directorate, are responsible for providing an annual report to the Research Committee of Academic Board to advise on current and future research data and material management and requirements.

Records management

- 5.3 The Research Division and Information and Technology Directorate are jointly responsible for maintaining and managing the Data Management Register, which will record all Research Data Management Plans. Citation information and metadata information will be stored in the University's institutional repository, ACQUIRE, under management of the University Library.
- 5.4 All records relevant to this document are to be maintained in a recognised University recordkeeping system.

6 DEFINITIONS

- 6.1 Terms not defined in this document may be in the University [glossary](#).

Terms and definitions

Materials: Physical objects acquired through a process of scholarly investigation from which research data may be derived. It may include raw physical materials such as ore, soil samples or biological material, or physical or digital objects such as artefacts, questionnaires, sound recordings or video. Depending on discipline, materials may be considered research data, and may be required to be retained if they are required to validate the outcomes of research, and defend those outcomes against challenge¹.

Metadata: Information on specific research data or materials, and normally includes such details as the means of creation of the data, the purpose of the data, time and date of creation, the creator or author of the data, the location of the data, etc.

Research Data: 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

¹ University of Sydney Research Data Management Policy.
(<http://sydney.edu.au/policies/showdoc.aspx?recnum=PDOC2013/337>)

includes: laboratory notebooks; field notebooks; primary research data (including research data in hardcopy or in computer readable form); questionnaires; audiotapes; videotapes; models; photographs; films; test responses. Research collections may include slides; artefacts; specimens; samples. Provenance information about the data might also be included: the how, when, where it was collected and with what (for example, instrument). The software code used to generate, annotate or analyse the data may also be included²

7 RELATED LEGISLATION AND DOCUMENTS

[Australian Code for the Responsible Conduct of Research](#)

[ARC Open Access Policy](#)

[CQUniversity Code of Conduct](#)

[CQUniversity Code of Conduct for Research](#)

[NHMRC Open Access Policy](#)

[NHMRC Statement on Data Sharing](#)

[Principles for accessing and using publicly funded data for health research](#)

8 FEEDBACK

8.1 University staff and students may provide feedback about this document by emailing policy@cqu.edu.au.

9 APPROVAL AND REVIEW DETAILS

Approval and Review	Details
Approval Authority	Academic Board
Advisory Committee to Approval Authority	Research Committee of Academic Board
Administrator	Deputy Vice-Chancellor (Research)
Next Review Date	26/09/2019

Approval and Amendment History	Details
Original Approval Authority and Date	Academic Board 26/09/2016
Amendment Authority and Date	
Notes	

² The University of Melbourne *Policy on the Management of Research Data and Records*.
(<http://www.unimelb.edu.au/records/research.html>)

10 APPENDIX A – CQUniversity research data storage options

Requirements	Dedicated local Research Data Storage service	High Performance Computing Storage (not suitable for research data)	U Drive (not suitable for research data)	QCIF QRIScloud	AARNet's CloudStor service
Do you require storage that is physically close to computing facilities for processing purposes?	x	✓	x	✓	x
*Do you require data storage for archiving purposes?	✓	x	x	✓	x
**Are you working with very large datasets?	✓	✓	✓	✓	✓
***Are you using active data?	✓	✓	✓	✓	✓
Are you using sensitive data (e.g., identifiable data, commercial in confidence, etc.)	✓ (This is the most recommended service for supporting sensitive data)	x (Though HPC storage can support sensitive data, it is not a recommended service to support this)	x (Though U: Drive storage can support sensitive data, it includes only basic user-level security)	✓ (Though QRIScloud Service can support sensitive data, it is not a recommended service to support this)	✓ (Though CloudStor Service can support sensitive data, it is not a recommended service to support this)
Are you sharing your data with researchers at CQUniversity?	✓	✓	x	✓	✓
Are you sharing your data with researchers NOT at CQUniversity?	x	x	x	✓	✓
Do you require remote access?	✓ (Through the use of the VPN client)	✓ (Through the use of the VPN client)	✓ (Through the use of the VPN client or via ftp)	✓	✓

Note:

*Archiving purposes is data that requires permanent storage and will be stored and remain unchanged

**Large Data Set are considered to be more than 100GB's of data

***Active data is the term given to a data set that is currently being used and produced as part of ongoing research – for example, data that is frequently accessed, modified and/or being added to.

	About	Benefits	Limitations
Dedicated local Research Data Storage service	<ul style="list-style-type: none"> Designed to store data which is actively being developed, as well as completed managed data collections (in particular, datasets that are confidential / non publishable) To gain access to this facility, you will need to fill out the Research Data Management Form and forward it to the Technology and Services Assistance Centre (TaSAC) at tasac@cqu.edu.au 	<ul style="list-style-type: none"> Data is stored at our local Campus, thus there are no data sovereignty issues Provides access to significant amounts of storage capacity (e.g. 10 TB) Facilities are located behind our corporate firewalls, thus providing an extra layer of security Only CQUni staff have access to the servers (unlike what occurs with external cloud providers) 	<ul style="list-style-type: none"> Extremely difficult to provide access to data for external collaborators
High Performance Computing Storage	<ul style="list-style-type: none"> The HPC System is not designed to permanently store files and data, but rather to provide access to significant capacity near computing resources, thus allowing heavy processing, simulation and data analysis of any data stored on the system 	<ul style="list-style-type: none"> Provides significant storage near computing high performance computing facilities 	<ul style="list-style-type: none"> Not designed for permanent storage, nor for any other user case, other than to be used in conjunction with the HPC system
U Drive	<ul style="list-style-type: none"> The University provides students and Staff with access to a personal storage U: drive. This drive is accessible from all University computers and includes 50MB of storage space for students and 500MB for staff 	<ul style="list-style-type: none"> Data stored at our local (Rockhampton) Campus, thus there are no data sovereignty issues This storage should already be automatically be available on any CQUniversity computer – thus providing simple access 	<ul style="list-style-type: none"> Limited storage capacity Not designed to allow access to other collaborators, either CQUniversity or external
QCIF QRIScloud	<ul style="list-style-type: none"> A data storage and cloud computing service run by the Queensland Cyber Infrastructure Foundation (QCIF). To apply for QRIScloud storage for your research data collection, contact TaSAC Merit based allocation designed to store large national “open” data collections considered to be of “national significance” QRIScloud (Queensland Research and Innovation Services Cloud -http://www.qcif.edu.au/services/griscloud) provides ‘RDSI’ data storage to the Queensland research community 	<ul style="list-style-type: none"> QRIScloud also provides significant compute capability near this substantial storage capacity provides the infrastructure to tackle research opportunities that ‘institutional’ facilities simply could not handle Provides data access to research communities, both nationally and internationally All data is kept ‘On-shore’ and stored on data centres throughout Australia, thus there are no data sovereignty issues 	<ul style="list-style-type: none"> QCIF staff (system administrators) have access to the system, thus this external cloud provider can access your data Not recommended for the storage of highly sensitive or confidential research data
AARNet's CloudStor service	<ul style="list-style-type: none"> Australia's Academic and Research Network's (AARNet) Cloudstor service enables researchers to store, access and share small or large files at high speed Designed to store individual research data and can be considered as additional method for backing up precious research data For more information, please visit https://my.cqu.edu.au/web/eresearch/aarnet-cloudstorplus 	<ul style="list-style-type: none"> Provides 100 GB of free ‘research only’ storage to each CQUniversity researcher Data is stored on the AARNet network and provides high speed connectivity CloudStor can be used as a replacement for Dropbox Provides anywhere, anytime access to data via a web browser There is support for synchronising clients for Windows, Mac OS X and Linux and mobile clients available for Android and IOS. Can be used as a research data sharing tool 	<ul style="list-style-type: none"> AARNet staff (system administrators) has access to the system, thus this external cloud provider can access your data It is not recommended to store large “project” based research collections Not recommended for the storage of highly sensitive or confidential research data