

RESEARCH DATA MANAGEMENT POLICY AND PROCEDURE



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1 PURPOSE

- 1.1 This policy and procedure outlines how CQUniversity will manage data sharing to promote research work, generate publications and increase the University's contribution to research impacts and outcomes.
- 1.2 This policy and procedure:
- ensures that research data is retained appropriately in order to justify the outcome/s of research and to defend these if they are challenged
 - provides guidance to researchers, research higher degree (RHD) candidates and students in research preparatory courses on the responsible recording, management and protection of research data, and
 - sets out how the University will assist researchers and research candidates to adhere to the [Australian Code for the Responsible Conduct of Research](#) principles of rigour, transparency and accountability.

2 SCOPE

- 2.1 This policy and procedure applies to [researchers](#) and [research candidates](#) at CQUniversity.

3 POLICY STATEMENT

- 3.1 Research conducted at, and by University researchers and research candidates, will comply with the principles contained in the [Australian Code for the Responsible Conduct of Research](#), and be in accordance with the [National Statement on Ethical Conduct in Human Research](#) and the [Australian Code for the Care and Use of Animals for Scientific Purposes](#).

- 3.2 Research data stored by the University will be retained in accordance with the [relevant Retention and Disposal Schedule](#) for retention and destruction of research data, any additional contractual or legal requirements, and with regard to ethics guidelines, privacy legislation, other relevant laws, and research-specific practices and standards.
- 3.3 Where possible, the University will follow the [FAIR Data Principles](#) in relation to storage and accessibility of research datasets owned by the University.
- 3.4 Subject to any applicable law or agreement with a third party, the University will assert ownership of research data and materials created or collected by employees in the course of their employment with the University, or by visitors engaged in activities using the University resources (collectively termed 'researchers' in this document).
- 3.5 The University will not assert ownership of research data and materials created or collected by research candidates except where there is a written agreement between the University and the candidate assigning ownership to the University. However, the University does require research candidates to accept University guidance in the appropriate handling and storage of research data to ensure that research outcomes can be justified and defended, and that obligations to external parties are met appropriately.
- 3.6 The University will provide guidance to its researchers and research candidates 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 The University will assist researchers and research candidates to access adequate storage facilities to ensure the safe and secure storage of research data created.
- 3.8 Where researchers or research 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 the University, 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 researchers and research candidates to facilitate compliance with this policy and procedure.
- 3.11 The University will facilitate access to data and data sharing, as appropriate, in accordance with current national principles.
- 3.12 If a researcher leaves the University 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 comply with the [Intellectual Property and Moral Rights Policy](#).

4 PROCEDURE

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

Data management responsibilities

- 4.2 Researchers must complete a Research Data Management Plan for each new research project.
- 4.3 The Research Data Management Plan will set out:
 - a) the location/s 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), the location of the code key or identifiers, if any, and risk management strategies regarding avoidance of possible re-identification
 - c) the significance of the research data and materials to enable determination of the storage duration and appropriate level of access

- d) custodianship, and details of who will have access to the research data, identifiers and materials, including any third parties, and limitations of their rights to access
 - e) ownership of the research data and materials, and limitations or restrictions applying to access, storage, disposal, sharing and re-use of data, and
 - f) whether the research data and materials must be submitted to an external party (e.g. as a contractual requirement of the funding agreement or publisher).
- 4.4 Researchers must submit their Research Data Management Plan online. Where a research project includes multiple researchers, the first-named researcher will be responsible for completing and submitting the Research Data Management Plan on behalf of the research team.
- 4.5 Research candidates must create an initial Research Data Management Plan at the time of completion of their Candidate and Supervisor Agreement.
- 4.6 Researchers and research candidates must review their Research Data Management Plan annually and provide a revised Plan, as necessary.
- 4.7 The Research Data Management Plan must be finalised with the Final Report on a research project, the final submission of the thesis to the University; or (in the absence of a thesis) immediately prior to conferral of award. For students in the Graduate Certificate of Research course, a Research Data Management Plan is only required prior to conferral in instances where the studies have included the Research Project module and creation of a primary research dataset.

Data management register

- 4.8 The University's Data Management System (Data Manager) will collate and store Research Data Management Plans.
- 4.9 The System will include information about any confidentiality, patent, contractual, ethical or privacy considerations that apply to the research, which may impact any request for access.

Data storage

- 4.10 A master copy of all research data, materials and related records must be stored on University-approved data storage infrastructure (Data Manager).
- 4.11 Where access to the University approved data storage is temporarily unavailable (for example, during fieldwork) a master copy of research data, materials and related records may be stored on portable hard drives, USB devices or laptops, but must be transferred to an approved University approved data storage infrastructure at the earliest opportunity.
- 4.12 A backup copy of all research data, materials and related records should be stored securely in at least two additional locations to the University approved data storage infrastructure to ensure adequate protection.
- 4.13 [Appendix A](#) sets out a matrix of available and suggested storage locations for different types of research data, materials and related records.
- 4.14 Research data, materials and related records created by researchers will be owned by the University unless subject to a written agreement between the University and a third party. Materials created by research candidates will be owned by the candidate, unless subject to a written agreement between the University and/or a third party.
- 4.15 Prior to conferral of a research award, the research candidate will submit one complete copy of the candidate's research data to the University to be retained in University approved data storage infrastructure, for the requisite retention period, in accordance with the procedure outlined on the Final Lodgement of Thesis Form.

Data retention and disposal

- 4.16 The data retention period for research data and materials will be calculated from the date of last publication.

- 4.17 Research data identifier information must be preserved for long enough to ensure that participants can be traced in the event that evidence of long term health-related impacts related to the research emerges.
- 4.18 Research which has community or heritage value should be retained indefinitely, and submitted to national collections, as appropriate.
- 4.19 Research data and materials must not be disposed of unless written permission for destruction has been provided by the University.

Data access and re-use

- 4.20 Researchers and research candidates undertaking research which has been approved by a Human Research Ethics Committee must adhere to the [National Statement on Ethical Conduct in Human Research](#), which requires research data and information is stored in such a way that it can be used for future research projects, unless sufficient justification is provided to not make the data or information accessible.
- 4.21 Researchers and research candidates engaged in publicly-funded research must adhere to the access and re-use requirements of the applicable funding body. Specifically, research funded by the Australian Research Council (ARC) must be managed in accordance with the current [ARC Open Access Policy](#) and research funded by the National Health and Medical Research Council (NHMRC) must be managed in accordance with the current [NHMRC Open Access Policy](#).
- 4.22 The University's open access institutional repository ([ACQUIRE](#)) will provide access to publishable research datasets or citation information for datasets which are not available for public access, unless confidentiality restrictions apply.
- 4.23 Metadata for publishable research datasets must be recorded in Research Elements for reporting purposes. Metadata and publishable datasets can be submitted via [Research Elements](#) or [ACQUIRE](#) (for large datasets).
- 4.24 Information should be submitted in Data Manager, outlining whether data is open access, mediated access, or closed to ensure datasets shared via ACQUIRE are appropriately shared and licenced
- 4.25 The University follows the [Five Safes Framework](#) in decisions to provide mediated access to sensitive data. The Five Safes are:
- Safe projects: is the intended use appropriate?
 - Safe people: can the user/s be trusted to use the information appropriately?
 - Safe settings: are there appropriate access controls for collaborating or sharing?
 - Safe data: is there a confidentiality risk in any data being shared?
 - Safe outputs: are individuals identifiable in the data outputs?
- 4.26 ACQUIRE will provide information about access procedures for datasets requiring mediated access.
- 4.27 Prior to conferral of a research award, the research candidate will submit a publishable dataset record to ACQUIRE unless restricted by confidentiality, in accordance with the procedure outlined on the Final Lodgement of Thesis Form.

5 RESPONSIBILITIES

Compliance, monitoring and review

- 5.1 The Vice-President (Research) is responsible for implementing, monitoring, reviewing and ensuring compliance with this policy and procedure.

Reporting

- 5.2 The Research Division, in cooperation with the Digital Services Directorate, will provide an annual report to the Research Committee on current and future research data and material management and requirements.

Records management

- 5.3 The Research Division and Digital Services Directorate are jointly responsible for maintaining and managing the Data Management Register.
- 5.4 Citation information and metadata information will be stored in ACQUIRE, under management of the University Library.
- 5.5 Employees must manage records in accordance with the [Records Management Policy and Procedure](#). This includes retaining these records in a recognised University recordkeeping information system.
- 5.6 University records must be retained for the minimum periods specified in the relevant [Retention and Disposal Schedule](#). Before disposing of any records, approval must be sought from the Records and Privacy Team (email records@cqu.edu.au).

6 DEFINITIONS

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

Terms and definitions

Master copy: an original copy from which duplicate or backup copies are made.

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 challenge.¹

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.

Researcher: the collective term for employees in the course of their employment with the University (including adjunct employees), or visitors engaged in activities using the University resources, undertaking research activities or projects.

Research candidates: for the purposes of this policy, this refers to candidates enrolled in research higher degree (RHD) studies or students in a research preparatory course (such as the Graduate Certificate in Research). This definition does not extend to students in undergraduate programs (including honours degrees), postgraduate coursework or vocational training programs.

Research data: broadly refers to the 'evidence base' for the research, including working and final versions on which the research or creative work is based. This could include 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 laboratory notebooks, field notebooks, primary research data (including research data in hardcopy or in computer readable form), questionnaires, audiotapes, videotapes, models, photographs, films or test responses. Research collections may include slides, artefacts, specimens or 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 included.² For creative works this could include images of visual artwork (e.g. sculpture, paintings, exhibitions), recordings of performances and musical works (e.g. rehearsals, live performances, digital output), and textual works (e.g. drafts/concept maps/manuscripts/novella/work of fiction/musical composition).

7 RELATED LEGISLATION AND DOCUMENTS

[Australian Code for the Care and Use of Animals for Scientific Purposes](#)

¹ University of Sydney [Research Data Management Policy](#)

² University of Melbourne [Management of Research Data and Records Policy](#)

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

[Code of Conduct for Research](#)

Final Lodgement of Thesis Form

[Intellectual Property and Moral Rights Policy](#)

[Management of Data and Information in Research – A guide supporting the Australian Code for the Responsible Conduct of Research](#)

[National Statement on Ethical Conduct in Human Research](#)

[Open Access for Research Outputs Policy](#)

[Open Access Policy](#) (Australian Research Council)

[Open Access Policy](#) (National Health and Medical Research Council)

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

8 FEEDBACK

8.1 Feedback about this document can be emailed to policy@cqu.edu.au.

9 APPROVAL AND REVIEW DETAILS

Approval and Review	Details
Approval Authority	Academic Board
Delegated Approval Authority	Research Committee
Advisory Committee	N/A
Required Consultation	N/A
Administrator	Vice-President (Research)
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Notes	

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/qriscloud) 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 for 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 for highly sensitive or confidential research data