

Research Data Management Policy

July 2023

Aston University Research Data Management Policy 1

1. INTRODUCTION AND PURPOSE 2

The maintenance of accurate and retrievable data arising from research projects is an essential component of good practice in the conduct of research and a key component of research integrity and research reproducibility. Consideration around research data management and evidence of good research data management should be seen as an integral part of the research process, which is what Aston University expects of all researchers. This is in line with Aston's values and commitment to deliver research that changes lives for the better through collaborations between students, academic staff and industry leaders.

In addition, good research data management can benefit the transparency, productivity and 4 overall reliability of the research generated, supporting the research process and visibility of any research outputs. Evidence of good research data management is also a requirement of most funding bodies and publishers of journal articles. Aston University is committed to supporting its researchers to meet the highest standards of research data management and acknowledges that research data management involves numerous stakeholders across the research data lifecycle, from creation through to dissemination and preservation. Therefore, this policy is divided into distinct sections aimed at key stakeholders within the University.

The University endorses the UKRI Common Principles on Data Policy. 5

1.1. Purpose of the Policy 6

This policy covers Aston's approach to research data management. 7

The purpose of this policy is to: 8

- Ensure that researchers manage their research data effectively, enabling them to: 9
 - Demonstrate the highest standards of integrity of their research,
 - Preserve eligible research data for sharing and reuse (as appropriate),

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- Comply with ethical, legal, funder and other requirements in relation to research data and research data management.
- Ensure that University Colleges understand their responsibilities in relation to governance of research data management in their departments,
- Ensure that the University responsibilities for research data management are clearly articulated.

2. SCOPE OF POLICY 12

This policy covers the processes, arrangements, and limitations for storing research data 13 during the active research process.

For the purposes of this policy, research data are as defined by the UKRI Concordat on Open 1 Research Data¹ as 'the evidence that underpins the answer to a research question'. The research data can be quantitative or qualitative and may either be primary (generated first hand) or processed secondary data (building upon primary data) where the rights for the original data may be held elsewhere. Contemporary research data tends to exist digitally and takes many different forms including documents, spreadsheets, code, models, transcripts, images etc. However historic, and visual data can still exist in physical records including books, sketches, photographs, audiotapes, and specimens.

For a more comprehensive table of research data examples please see Appendix 1.2

If you are engaged in a Knowledge Exchange activity whereby you are generating research 3 data, you are expected to abide by the standards set out within this policy.

Research data preservation for the purpose of sharing is covered by the Data Preservation 4 and Open Research Data Policy.

2.1 Who is Covered by the Policy 5

This policy applies to all researchers (defined as any staff members conducting research and 6 doctoral research students) at Aston University with contractual responsibility for research data generation, collection, and/or analysis, or who produce or use research data. The policy stands to detail the management of that data arising from their research, and the roles of the various individuals or services that will support the management of research data during its lifecycle.

The policy does not apply to postgraduate taught and undergraduate students in the first 7 instance, except where their research findings are included in published research outputs. They may be guided in the first instance by the principles contained within this policy.

2.2 Ownership of this Policy 8

Research Committee owns this policy and oversees research data management policy 9 implementation via College Research Committees.

The Chair of the Research Committee is responsible for ensuring that this policy is reviewed every two years (unless there is significant change in current regulations which impact this policy) and is fit for purpose.

3. POLICY STATEMENT 11

3.1. General research data management 12

The University expects that the following general research data management principles will 13 be followed:

¹ https://www.ukri.org/wp-content/uploads/2020/10/UKRI-020920-ConcordatonOpenResearchData.pdf

- Research data should be actively managed to ensure that it is available for access, validation, 1
 and re-use (where appropriate).
- The rights and interests of research participants must always be protected.
- Researchers must comply with all relevant regulations, funder requirements, contractual obligations, and ethical requirements, as appropriate, at all times during their research.

3.2 Research data 2

Research data must be: 3

- Accurate, auditable, authentic, and reliable.
- Identifiable, retrievable, and available when needed.
- Secure and safe with appropriate measures taken in handling sensitive, classified, and confidential data.
- Kept in a manner that is compliant with legal obligations, University policy and, where applicable, the requirements of funding bodies; and
- Considered for long term preservation.

Clear arrangements for research data management must be in place prior to research data generation. The University recommends that all research projects have an associated Research Data Management plan (RDMP), with named researchers and their responsibilities detailed within. This may be a mandatory requirement as part of a grant application, and your Strategic Funding Manager will advise if so. It is the responsibility of the researcher to consider how legal and ethical restrictions will impact on their ability to share data at the end of the project and it is recommended that these considerations are addressed in a RDMP.

Research data must be stored and disposed of securely according to the relevant retention and disposal schedule, in accordance with legal, ethical, research funder and collaborator requirements and with particular concern for the confidentiality and security of the data. Records relating to research (e.g. master copies of approved consent forms, information sheets, records relating to ethical approval) should be retained for six years after the date of project closure, in line with the <u>University Records Management Procedures</u>. Research data that underpins published results or is considered to have long-term value should be retained.

Research data should be stored on Box unless there are specific reasons why this is not practical, nor in line with a collaboration agreement (for example). In this case advice should be sought from Digital Services in the first instance, and the Research Integrity Office where appropriate.

The deliberate or reckless mismanagement of research data and/or primary materials 8 constitutes unacceptable research conduct and should be reported in line with the University Research Misconduct Policy or the Whistleblowing policy.

3.3 Collaborative research 9

When participating in collaborative projects, an Aston University lead must be identified to take responsibility for management of research data produced under the auspices of Aston

University. This person is also responsible for ensuring that data are managed appropriately and in line with any relevant contracts and/or ethics approvals in place.

3.4 What to do when you leave Aston 2

The University expects that researchers will make the necessary arrangements to deposit/archive research data associated with projects which are closed, or transfer/make available data and records which are associated with active research projects. It is expected that transfer will occur via Box, with shared ownership of relevant Box folders with other appropriate researchers within the University, noting that this should be done in line with any relevant contracts and/or ethics approvals in place. For any arrangements where Box cannot be used, Digital Services should be consulted to discuss and approve an alternative mechanism.

4. ROLES AND RESPONSIBILITIES 4

4.1. University 5

The University is responsible for: 6

- 4.1.1 Providing access to services and facilities for the storage, backup, deposit and retention of research data and records that allow researchers to meet their requirements under this policy and those of the funders.
- 4.1.2 ensuring that staff and research students understand the requirements for research data 8 management and engage with training and development as necessary.
- 4.1.3 Providing the necessary resources to those central services responsible for the 9 provision of these services, facilities, and training.
- 4.1.4 raising awareness of best practice in research data management in which legal, ethical, 10 and professional requirements and standards are considered whenever research data are created, handled, used, shared or stored.

4.2. Heads of School/Department or Associate Deans for Research 11

Heads of School/Department or Associate Deans for Research are responsible for: 12

- 4.2.1 Ensuring that researchers in their area are aware of this policy and their responsibilities in relation to it.
- 4.2.2 Assist researchers in their area to meet the requirements of this policy. 14
- 4.2.3 Ensuring that when a member of staff leaves the institution before the completion of a project 15 (and final deposit of research data), that a copy of data produced under the auspices of the University is retained.
- 4.2.4 Oversight of the curation and disposal of research data retained once a member of staff has left or retired from the University.

4.3. Researchers 1

Researchers are responsible for: 2

- 4.3.1 Considering, at the outset of a research project, creation of a RDMP which documents ³ clear procedures for the collection, storage, use, re-use, access and retention or destruction of the research data.
- 4.3.2 Familiarising themselves with this policy and associated policies/guidance.4
- **4.3.3** Ensuring that on completion of research, all relevant research data are preserved, maintained, 5 or disposed of appropriately, securely, and can be audited.
- 4.3.4 Ensuring that requests for destruction/withdrawal of research data by research participants 6 are acted upon in a timely manner.
- 4.3.5 Ensuring that they meet all requirements in relation to research data placed on their research 7 by funding bodies, regulatory agencies, and research ethics committees, third party data providers and collaborating institutions or under terms of a research contract with the University.
- 4.3.6 Ensuring that active research data are accessible by another authorised person during the 8 research to guarantee access to the data by the University in case of need.

In addition, lead researchers or Principal Investigators (including supervisors of doctoral research 9 students, are responsible for:

- 4.3.7 Ensuring that throughout the project, storing, sharing and manipulation of data are in accordance with legal and ethical requirements and recommended practices to ensure data are kept secure, backed-up and organised effectively (the University recommends that Box is used unless in specific circumstances and with permission from Digital Services).
- 4.3.8 Ensuring that any requirements in relation to research data and records management 11 placed on their research by funding bodies or regulatory agencies or under the terms of a research contract with the University are also met.

Where research is undertaken by a student it is the responsibility of the staff member supervising their project to ensure that the student has a clear understanding of appropriate research data management practice in line with this policy.

5. EXCEPTIONS TO THIS POLICY 13

Research data subject to contractual, regulatory and/or funder policies will need to be 14 managed in line with the stipulated requirements. In this case these requirements supersede the details pertained inside this policy.

6. SOURCES OF GUIDANCE 15

Advice on how to implement the requirements set out in this policy are available via the <u>Library webpages</u>, <u>Research Integrity webpages</u> or by emailing <u>researchdata@aston.ac.uk</u> or research governance@aston.ac.uk.

7. RELATED REGULATIONS, STATUTES AND POLICIES 1

This policy should be read alongside the following: 2

Open Research Data Policy

Concordat on Open Research Data

Intellectual Property (IP) Policy

Research Integrity Policy

Research Ethical Principles and Procedures

Research Misconduct Policy

IT Security Framework

Data Protection Policies and Procedures

Records Management Policies and Procedures

General Regulations for Degrees by Research and Thesis

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Appendix 1

1 – Table of different types of research data 2

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|---|---------------------|--|---|--|--|--|--|
| | Data | Description & Example | 3 | | | | |
| | Observations* | Measuring and recording qualitative or quantitative data through experimentation, e.g., real-time measurements of Carbon Dioxide | 1 | | | | |
| | Questionnaires* | Participant responses to questions posed, e.g., participant responses to medical survey | | | | | |
| | Audio* | Audible recording of sounds, e.g., recording bird call in the forest | | | | | |
| | Photographs* | Image captured on light sensitive material or digitally, e.g., telescopic photograph of constellations | | | | | |
| | Specimens/Samples * | A piece of material of research interest to be studied, e.g. a specimen of bauxite | | | | | |
| | Films* | A recording of motion pictures, e.g., a film of a volcanic eruption | | | | | |
| | Sketchbooks* | Drawing by hand, e.g., sketch of rock formations on a cliff face | | | | | |
| | Transcripts* | A verbatim recording of words recorded, e.g., a transcript of a police interview | | | | | |
| | Spreadsheets | An electronic document in which data are stored and can be manipulated in equations, e.g. a spreadsheet showing student attendance | | | | | |
| | Code | A text and numerical computer language with instructions and rules which can allow software, calculations etc. to operate, e.g. an R script of wind velocity data which when run produces diurnal plots | | | | | |
| | Models | A predictive computer simulation usually using known data and a host of mathematically applied possibilities/scenarios to try and better understand real world events (past or future), e.g. forecasted future weather events | 3 | | | | |
| | Algorithms | A sequence of mathematical/computational steps to perform a function, e.g. the operation of a search engine to deduce most relevant responses | | | | | |
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^{*} Data can exist within a physical object when not recorded in or converted to a digital form 4

| FOR OFFICIAL USE ONLY 5 | | | | |
|-------------------------|------------|-------------|---------------------------------------|---|
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| | | | Services | |
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