

Title of Documentation

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| Summary/Description: | The purpose of this policy is to establish principles for effective management of the research data generated within the University plus its dissemination. The policy provides the link between research practice and the data it produces, the management and curation of research data, including legal criteria that need attention, sharing research data with others, and the responsibilities that stakeholders in the research process have to ensure success in working with research data. |
| Scope: | This policy applies to all research carried out at the University of Hull, whether conducted by staff or students, funded externally or by the University (respecting where contracts with private funders may have specific requirements). The policy does not apply to data gathered through regular business and administrative activity of the University, although it is recognised that the principles and practice detailed in this and related documents may also be of benefit in ensuring effective management of data in those areas |
| Collaborative provision: | Please state whether this document is applicable to the university's collaborative partners: <input type="checkbox"/> Mandatory <input checked="" type="checkbox"/> Not mandatory |
| Assessment: (where relevant) | <input checked="" type="checkbox"/> Equality Assessment <input checked="" type="checkbox"/> Legal |
| Consultation: (where relevant) | <input type="checkbox"/> Staff trade unions via HR <input type="checkbox"/> Students via Hull University Union <input type="checkbox"/> Any relevant external statutory bodies |
| Relevant legal frameworks: | Data Protection Act 2018 (incl. General Data Protection Regulation); Freedom of Information Act 2000; Copyright, Designs and Patents Act 1988. |

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| Related policies/documents: | University Research Strategy; Statement of Research Integrity; Code of Good Research Practice; Data Strategy; IT policy documents related to file storage and security. |
| Document location: | University website's Policies and Procedures page and Sharepoint site; Research Integrity and Governance website |
| Document dissemination/ communications plan: | Via ADRs, Faculty Research Committees and newsletters |
| Document control: | All printed versions of this document are classified as uncontrolled. A controlled version is available from the university website. |
| This document is available in alternative formats from | Governance and Compliance |

Research Data Management and Sharing Policy 2023

Introduction

Background

1. The University of Hull is committed to the delivery of high-quality research and both requires and fosters the practice of research to high standards across all disciplines. The University has laid out its expectations in the Statement on Research Integrity (2023), Code of Good Research Practice (2023), and Research Ethics Policy (2023).
2. A key element of this delivery is the dissemination of the outputs from research to communicate the research findings to the widest possible audience and achieve a broad societal impact. This dissemination recognises that the outputs from research are valuable assets meriting curation to support ongoing access and are a major component of the knowledge legacy generated by the University.
3. Whilst acknowledging the primary focus of attention on publications as outputs from research, the University also recognises the intrinsic value of data generated through research. Research data underpin the research process and provide the core basis of the research analysis that feeds into publications and other dissemination activity.
4. The effective management of research data contributes to research integrity by ensuring that the analysis disseminated through research outputs has a sound basis. It also contributes to a culture of honesty and accuracy in research practice and underpins research reproducibility by facilitating transparency in research practice.

Purpose

5. The purpose of this policy is to establish principles for effective management of the research data generated within the University plus its dissemination, through sharing of this data where appropriate. The policy provides the link between research practice and the data it produces, the management and curation of research data, including legal criteria that need attention, sharing research data with others, and the responsibilities that stakeholders in the research process have to ensure success in working with research data.
6. This policy seeks to support adherence with funder and journal policies related to research data. It is recognised that these policies continue to evolve, and supporting guidance will be adjusted to meet changing requirements as needed.

Scope

7. This policy applies to all research carried out at the University of Hull, whether conducted by staff or students, funded externally or by the University (respecting where contracts with private funders may have specific requirements). The policy does not apply to data gathered through regular business and administrative activity of the University, although it is recognised that the principles and practice detailed in this and related documents may also be of benefit in ensuring effective management of data in those areas.
8. The policy applies to data that are both digital and non-digital.
9. The principles of the policy can be used to inform the management of research data created at any time, but the policy itself applies to research data created from the date of implementation of this policy.

Context

10. The policy has been developed in the context of external guidance within the research community. In particular, the policy is aligned to the following documents:
 - a. The FAIR Guiding Principles (2016), <https://www.nature.com/articles/sdata201618>
 - b. The UKRI Common Principles on Data Policy (updated 2022), <https://www.ukri.org/funding/information-for-award-holders/data-policy/common-principles-on-data-policy/>
 - c. The Concordat on Open Research Data (2016), <https://www.ukri.org/funding/information-for-award-holders/data-policy/>
11. This policy sets out principles that apply across all areas of research. It is recognised that there will be disciplinary norms and differences in the definition and understanding of research data, and its management and sharing. Where there are specific disciplinary data management requirements, these should be acknowledged and accommodated within the research data management and sharing practice carried out.

Definitions

12. **Research data** – For the purposes of this policy, and acknowledging disciplinary differences in interpretation, research data refer to any material collected, observed, constructed, generated, or created for the purpose of research analysis, and on which research conclusions are based¹.
13. **Data management plan** – A data management plan (DMP) is a document that records intentions to gather, store, manage, disseminate and preserve research data. A DMP provides a methodology for working with data through a research process, and as a checklist to ensure the maintenance and development of good practice over time.
14. **Data curation** – Data curation involves the active management of research data to maintain, preserve and add value to the data throughout its lifetime.
15. **Data catalogue** – A data catalogue is a record of the existence of datasets, with each being described using a metadata record (which may be brief or detailed according to the complexity of the data).
16. **Data repository** – A data repository is a location or service that can be used to preserve, curate and share research data over time. Its focus is on preserving final datasets after the research generating the data has been completed, though snapshots of data being added to over time can also be included.
17. **Data sharing** – Data sharing in the context of this policy involves making research data available for others to utilise, through deposit in a data repository with an open licence, or a private arrangement with an individual or team. A key part of sharing data is the creation of suitable metadata or data documentation describing the data to facilitate access and understanding about the data.
18. **Data access statement** – A statement of the way(s) in which research data can be accessed. This may range from provision of a web link to a downloadable file to contact details to support a conversation about how data might be made available (e.g., if the files are large). A data access statement may also be used to indicate why access is *not* available, for instance if data is sensitive or the rights-holder unknown.

¹ Research data types include, but may not be limited to: documents, spreadsheets, laboratory notebooks, field notebooks, diaries, questionnaires, transcripts, codebooks, audiotapes, videotapes, photographs, films, test responses, slides, artefacts, specimens, samples, collections of digital outputs, data files, database contents (video, audio, text, images), models, algorithms, scripts, contents of an application (input, output, logfiles for analysis software, simulation software, schemas), methodologies and workflows, and standard operating procedures and protocols.

Principles

Research practice

19. Where research data contains personal or sensitive information, the management of the data must be included in the ethical approval for the research in accordance with the Research Ethics Policy.
20. Managing research data is a key researcher skill alongside other research skills (See Principle #9 in the Concordat on Open Research Data): the University will provide training to enable researchers to develop this skill and put it into practice.
21. Research induction and continuing researcher professional development must include reference to research data management and this policy so staff and students are aware of the requirements upon them.
22. In keeping with wider research practice, the use of ORCID identifiers for researchers is recommended to assist with the effective management and sharing of research data.

Managing data

The management of research data is a task carried out by all researchers in all disciplines to some degree. This policy highlights the benefits of a structured approach to that task.

23. A vital element of the management process is the development of a data management plan (DMP). All research projects must create a DMP relevant to the needs of the project as part of their documentation for the project. DMPs are working documents and should be updated in line with project developments; each version should be preserved alongside other project documentation.
24. The amount of research data being generated will vary from project to project. In each case researchers must at an early stage assess the scale of the data and make suitable arrangements for it to be stored and backed up. Where IT storage services will be used, early communication with IT Services must be undertaken to inform appropriate practice based on requirements.
25. Where the research data constitutes or includes software, the software should be maintained through an appropriate code repository to facilitate management and support reproducibility.
26. Research planning should account for any costs associated with managing data, including its storage and staff time involved. Where funders can provide support for such costs, or a proportion of them, this should be included in grant applications.
27. Research data should be managed in keeping with best current practice for data curation, acknowledging disciplinary norms as part of this. This should include assignment of a Digital Object Identifier (DOI) or other appropriate persistent identifier to datasets for discoverability and citation.
28. All data management plans must give consideration to the date of expiry for the data, which, unless there are specific funder requirements otherwise, must not exceed seven years from the date of deposit. All data reaching their expiry date or the seven-year limit must be reviewed by appropriate academic and professional services staff to inform future management, or agree on deletion of the data.
29. Completed research datasets generated by the University must have a metadata record created within the current research information system (CRIS), linked to the project(s) that produced it, providing a data catalogue; this will include data stored locally at the University and data stored at third party services externally. Where data is deleted, the record must be kept, but updated to record when the deletion took place.

30. Non-digital data will require specific management according to the type of data involved. The precise arrangements for such management must be incorporated within the DMP for the research in question.

Sharing data

31. In keeping with the value inherent in open access to research outputs, publishing data with an open licence is an aim for all research at the University. This policy recognises that there are occasionally valid reasons why data cannot be made open, and these reasons must be recorded as part of the data catalogue record. Licence choice must take account of associated funder requirements.
32. Researchers involved in the creation of the data have the right to exploit the data for an agreed period prior to sharing it (see Principle #4 in the Concordat on Open Research Data and Point 5 in the UKRI Common Principles on Data Policy). Guidance from funders and/or subject communities should be followed on the length of such a period: where no such guidance is available a locally agreed time limit that takes account of disciplinary practice will be applied.
33. When data is being shared it must have an extended metadata record describing what the dataset contains to facilitate access and use. Additional data documentation should be provided where appropriate to facilitate utilization of the data.
34. Where research data is referenced in publications, a data access statement must be included.
35. Where research data is sourced externally and used within research at the University, it must be appropriately referenced as an acknowledged source in any publications arising from the research. Research data generated at the University must be citeable by others using the metadata in the CRIS record (see paragraphs 30/31): this metadata must include the DOI or other appropriate persistent identifier assigned to aid discovery.
36. Research data can be shared through an appropriate data repository, which may be local or via a third-party service: where possible this repository should have trusted digital repository (TDR) status. If the latter option is chosen, the service should adhere to the principles within this policy.

Legal²

37. All data created through research at the University by employees is owned by the University, unless there are contractual arrangements that specify otherwise.
38. Researchers who leave the University should ensure that access to a copy of the data, whether at the University or at a third party, is available prior to leaving: details of such access must be recorded in the DMP for a dataset, which must be stored and made available alongside other project documentation.
39. Students may own the data they generate, dependent on the source of their funding, but must clarify this and any shared ownership and authorship the University may claim with staff/supervisors at an early stage in the research process and record this within the DMP.
40. Where research data is shared for dissemination, an appropriate licence must be applied to facilitate access and usage by others.

² This section establishes core general principles in the context of managing and sharing research data. Advice and guidance on specific circumstances and needs should be taken through the Research, Knowledge Exchange and Commercialisation Team where appropriate.

41. Conversely, data sourced externally must be used in accordance with any licensing attached to this. Exclusive rights to reuse or publish research data must not be handed over to commercial publishers or agents.
42. Research data must be managed in accordance with the University's Data Protection Policy³, and specifically the Data Principles within paragraph 6 of that Policy. It is acknowledged that legislative requirements may alter over time and that data management and sharing must take account of such changes as they occur.
43. Data must be held securely and used only for the purpose that has been consented.
44. Care must be taken over who has access to such data, and details of such access rights recorded in the DMP.

Responsibilities

Overall responsibility

The management of research data is a collaborative activity that involves multiple stakeholders across the University. It is recognised that only through working together can the University effectively achieve the principles outlined in this document.

45. Primary responsibility for the management and sharing of data in accordance with the principles set out in this policy lies with the Principal Investigator (PI) or supervisor for the research being carried out. Details of how this responsibility is exercised must be recorded within the DMP. Where the PI leaves the University, responsibility should be delegated to an appropriate colleague: if no such delegation takes place responsibility for the data will be the responsibility of the PI's School or Institute.

Heads of School/Directors of Institute responsibilities

46. It is the responsibility of Heads of School/Directors of Institutes to ensure good practice and legal obligations are met relating to the management and sharing of research data within their area.
47. Heads of School/Directors of Institutes should identify and arrange for any training or skills development required in carrying out the above responsibility and in support of PIs in exercising their responsibilities.

Ethics Committees

48. Ethics Committees are responsible for ensuring that where projects make use of or generate research data that requires management under the terms of the Research Ethics Policy that the project has established the research data management practice required for ethical clearance.

Researcher responsibilities (where researcher is an employee)

49. Researchers are responsible for ensuring that research data they work with is managed, and shared where appropriate, in accordance with the principles set out in this policy.
50. Researchers must make every reasonable effort to keep an accurate and comprehensive record of their research and associated research data in keeping with the Code for Good Research Practice, to demonstrate good practice and underpin adherence to the principles of this policy.

³ University of Hull Data Protection information, policy and guidance, <https://www.hull.ac.uk/choose-hull/university-and-region/key-documents/data-protection>

51. Researchers must ensure that research data management and sharing carried out under the aegis of collaborative projects, involving partners external to the University, is suitably documented to make clear the University's responsibilities during and beyond the project's lifetime in respect of the data generated from the collaboration.

Postgraduate research student and supervisor responsibilities

52. It is the responsibility of postgraduate research students and their supervisors to ensure that research data management is planned and documented at the outset of the research project to fully inform work with research data during and beyond the period of doctoral study.

University responsibilities

53. Supporting responsibilities lie mainly with three areas of the University: Research and Innovation Office, University Library, and IT Services. Between these services areas they are responsible for:
- a. Advising on funder requirements for data management and sharing as part of grant applications.
 - b. Support in the development of DMPs for such grant applications and their maintenance and development during research.
 - c. Communication and coordination of effort to identify data management needs as part of research development.
 - d. The delivery of appropriate training on data management and sharing.
 - e. Provision of guidance and advice on the curation and preservation of research data.
 - f. Guidance and support on the creation of appropriate metadata for research data to support the data catalogue and sharing.
 - g. Provision and support of appropriate systems, including storage, to meet the University's research data needs.
 - h. Oversight of security within those systems to ensure the integrity and safekeeping of research data over time.
 - i. Management of contracts with external service suppliers where appropriate to help meet these research data needs.
 - j. Provision of data storage costs for inclusion in grant applications.

Reporting

54. In keeping with Principle #10 of the Concordat on Open Research Data, review of this policy will take account of assessment of the progress towards the provision of research data by researchers at the University.