Kingston University Research

Kingston University Research Data Management Policy

Introduction

1. Research conducted across the University may generate research data, defined as any material (digital or physical) collected, observed or created for the purpose of analysis to produce original research results. Types of research data vary between disciplines, but may include laboratory notebooks, images, sound or video recordings, raw data captured from instruments, observational data, experimental data, documents, spreadsheets, databases, data visualisations, data models, software and measurements. In this document 'data' means research data. See Annex 1 for further definitions of research data management terms.

2. Increasingly, research funding bodies and some publishers expect research data to be discoverable and openly available with as few restrictions as possible, in order to validate research results, increase impact, and facilitate reuse. Kingston University is committed to supporting its researchers to meet these expectations while observing intellectual property rights, any legal or third party obligations and relevant legislation. The Freedom of Information Act (2000), the General Data Protection Regulation and Data Protection Act (2018) and Environmental Information Regulations (2004) are all applicable to research data generated by University staff and students.

3. Kingston University recognises that systematic and responsible management and preservation of research data is fundamental to good research practice. This Research Data Management Policy is designed to support our academic staff and research students in upholding the principles of Open Science as demonstrated in the Concordat on Open Research Data[1], the final report of the Open Research Data Taskforce[2], the UKRI Common Principles on Data[3] Policy and FAIR data guiding principles[4].

Rationale and Benefits

4. This research data management policy will support the University and its staff to meet funder requirements on Open Research Data. Other benefits of policy implementation include:
   a) Embedding effective research data management practice will ensure that where data are protected by privacy laws or confidentiality agreements, they will be securely stored with access restricted appropriately.
   b) Data that may be of interest or use to others will be stored and preserved, and made accessible where possible. Providing access to research data (where possible) will:
      i) Increase the visibility of research to potential collaborators and prospective students, enhancing international research reputation.
      ii) Make research results more accessible to the public.
      iii) Broaden the potential international audience for the research and maximise the potential for increased citations and knowledge transfer.
      iv) Support the re-use of data and improve data integrity, research reproducibility and validation.
   c) Good management of data protects against accidental loss and having to repeat data collection/creation.

Research Data Management Policy

5. This policy document sets out the research data management responsibilities of Kingston University researchers. The policy annexes contain further guidance in support of this.

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[1] https://www.ukri.org/files/legacy/documents/concordatonopenresearchdata-pdf/

[2] https://www.gov.uk/government/publications/open-research-data-task-force-final-report

[3] https://www.ukri.org/funding/information-for-award-holders/data-policy/common-principles-on-data-policy/

[4] https://www.force11.org/fairprinciples

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6. This policy applies to all Kingston University academic staff and postgraduate research students[5] in their research activities, and is mandatory for any academic staff or research students holding research funding from an organisation with an Open Data policy (for example, UKRI, EU, Wellcome Trust, British Academy) or any other research that is expected to result in published findings of lasting scholarly value. Kingston University owns all research data created by academic staff during their employment at the University unless otherwise agreed by contract with a research sponsor, collaborator or funder. The University owns data created by postgraduate research students, <u>where the student has assigned Intellectual Property arising from their project to Kingston University</u>[6].

7. Academic staff and research students are responsible for familiarising themselves with the policy requirements, and those of any other relevant Kingston University, or funder policies, including any new policies that may arise during their research project. This policy and its Annexes should be read in conjunction with all relevant Kingston University policies, for example the Open Access Policy, Guide to Good Research Practice, Ethics: Guidance and Procedures (for Human Subjects), Freedom of Information Policy, Data Protection Policy and Intellectual Property Rights Policy.

8. The University is responsible for providing adequate storage, preservation and curation solutions for **digital data** arising from research projects, where external funding has not been provided to access external storage options, including logging requests to access datasets. Faculties are responsible for ensuring that **non-digital, physical data** (for example, note books, paper copies of questionnaires, photographs) are stored in locations appropriate to format and ongoing use. Research Operations Managers will liaise with researchers to maintain a log of non-digital data stored in faculties, as it arises (not including historic data).

9. The University Guide to Good Research Practice advises that researchers who leave Kingston University and wish to make copies of the data created through their research at Kingston must ask permission from their Dean. Under these circumstances the relevant Faculty will retain ongoing responsibility for management and stewardship of data. Faculty Deans hold ultimate responsibility, delegating strategic and operational responsibilities within their faculty as appropriate. Delegated responsibilities must be reported to Faculty Research, Business and Innovation Committees, and those holding delegated responsibilities should liaise with the relevant Research Operations Manager with regards to the location of data and ongoing curation responsibilities.

Academic staff and research student research data responsibilities

10. The Kingston University Principal Investigator or Doctoral/Project Supervisor associated with a research project is the Data Steward for that project and is ultimately responsible for research data management.

11. Researchers must ensure that they are familiar with any rules about managing, storing, keeping or sharing research data that apply to their research, for example research funder or publisher rules.

12. Researchers must identify what data are expected to be created or collected during a research project, and record this in a data management plan (DMP), whether or not this is required for a funding application.

13. Applications for ethical approval must include details of the information to be provided to research participants, where applicable, on how any data collected from them will be stored

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[5] An exception is postgraduate research students who have assigned ownership of Intellectual Property Rights arising from their research project to a third party sponsor. Please check with your Supervisor and Faculty Research Student Coordinator if you are unsure if this applies to you.

[6] Processes for assigning IP from postgraduate research projects vary between faculties, and may also depend on the source of funding for the studentship. Please check with your Supervisor and Faculty Research Student Coordinator.

during and after the data collection phase, how long it is likely to be stored for, and how and for what purpose it may be shared in the future.

14. Researchers must ensure that research data are stored securely during data collection and analysis, to prevent loss or unauthorised access. Access should not be limited to a single person.

15. At the end of a project, researchers must create descriptive metadata records on an appropriate research data repository so that their research activity is discoverable outside the university. The metadata should be accompanied by sufficient explanatory documentation so that data are understandable and re-usable.

16. Research data must be **retained** at the end of a project, usually for a minimum of 10 years. Following this, continued retention will be reviewed.

17. Research data must be **archived** appropriately at the end of a project. Where there is no reason that data cannot be shared, they should be **responsibly shared** and made available for re-use via the research data repository record. Some data should not be made openly available, for example for reasons of commercial confidentiality, data protection or because they could not be adequately anonymised. This type of data can be uploaded to the research data repository as a closed deposit. Data may also be deposited as a closed item but with conditions set for access.

18. Where research is funded externally and the funder's terms and conditions allow, appropriate provision must be made in the grant to meet the cost of research data management, both during and after the project. This includes the use of externally hosted data storage facilities, where appropriate.

19. Where **digital data** directly supports published research findings and is referred to in publications, the data should be assigned a **persistent identifier** that resolves to the online location where the data can be accessed or access requested. The persistent identifier should be included in the metadata describing the dataset.

20. Publications (for example journal articles) that rely on research findings must include a statement with information about the research data and where and under what conditions they may be accessed. This should reflect funder or publishers rules, where appropriate.

21. Researchers must notify their Faculty Research Operations Managers of any external requests to access data. The ROMs must record access requests and consider them as part of reviews of research data for continued retention or deletion. Where access requests have not been fulfilled due to data formatting issues, consideration should be given to reformatting to facilitate data sharing, if feasible.

Commencement date
October 2019

Review date
This Policy will be reviewed annually by Research, Business and Innovation, Library and Learning Services, and Information and Technology Services, with recommendations for amendments submitted for consideration and approval by the University Research, Business and Innovation Committee, and any relevant subcommittees.

Policy manager
Pro-Vice Chancellor for Research, Business and Innovation

Policy contact
Research, Business and Innovation

Approval authority
University Research, Business and Innovation Committee

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Annex 1: Definitions

Research data:	Any material (digital or physical) collected, observed or created for the purpose of analysis to produce novel research results. Types of research data vary between disciplines, but may include raw data captured from instruments, observational data, experimental data, documents, spreadsheets, databases, laboratory notebooks, data visualisations, data models, software, images and measurements.
Accessible:	Other users can see the data and use them (with or without restrictions).
Discoverable:	Other users can find descriptors of the data with information about where and how the data may be accessed, or why it is confidential and not accessible.
Highly confidential data:	Disclosure to unauthorised recipients could result in serious damage to the interests of individuals or of the University
Confidential data:	Disclosure to unauthorised recipients could have a negative impact on individuals or the University.
Unclassified data:	There is no need to restrict disclosure.
Primary data:	Research data created or collected by you or your project team for your current project.
Secondary data:	Research data created or collected by someone else or by you for another project.
Active data:	Research data created, collected and analysed during a research project.
Archive data:	Data that can be used to support research findings. Archive data should be moved from active storage into a data repository, with metadata and a persistent identifier. The data should be published where possible.
Digital data:	Data in an electronic format that can be stored in a computer.
Non-digital data:	Physical data, for example written notes, notebooks, artefacts, models, audio or video recordings in a non-digitised format, photographs or drawings in a non-digitised format.
Metadata:	Information that supports the discovery, understanding and management of other data and information. Researchers should ensure that metadata created to support retained research datasets is sufficient to allow other researchers a reasonable understanding of those datasets and thereby minimise unintentional misuse, misinterpretation or confusion. For example, the metadata may need to describe the origin, processing, analysis and/or the researcher's management of a dataset[7].
Potential reuse value / long term value:	All data have the potential to be re-used for other projects and additional value can be obtained from data already collected, minimising the need to repeat steps. While metadata should give sufficient detail for researchers in unanticipated future disciplines to assess the applicability, researchers should identify the areas likeliest for re-use as part of their data management and archiving preparation, and ensure the data are annotated and stored appropriately for these users. See http://www.dcc.ac.uk/resources/how-guides/five-steps-decide-what-data-keep for guidance on assessing the long term value of data.
Proprietary data formats:	Data saved in formats that are not free to use.
Persistent identifier:	A code, such as a digital object identifier (DOI) that provides a long-term reference to a digital object, such as an online publication or dataset. The use of a persistent identifier allows citation of a digital object without using a website address, which may become obsolete over time.

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[7] 'Guidance on best practice in the management of research data', RCUK, July 2015.

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Annex 2: Advice for academic staff and research students on how to fulfil their research data management responsibilities

The Research Data Management Policy sets out the research data management responsibilities of academic staff and research students who create or collect data during their research activities. This Annex to the Policy provides guidance on how to ensure that these responsibilities are fulfilled. Annex 3 provides specific guidance on research data management planning.

Responsibility for Data Management: The Kingston University Principal Investigator or Doctoral/Project Supervisor associated with a research project is the Data Steward for that project and is ultimately responsible for research data management.

During a project, data management tasks may be delegated or shared within the research team, with the PI or Supervisor retaining overall responsibility. The Data Management Plan should describe these arrangements in detail, and they should be clear within the team, with appropriate training and/or supervision in place.

External policy requirements: Researchers must ensure that they are familiar with any rules about managing, storing, keeping or sharing research data that apply to their research, for example research funder or publisher rules.

For funded research, the grant or contract terms and conditions may specify funder requirements on research data management. The grant/contract holder must read the terms and conditions and make sure that they comply with them. Research Operations Managers can assist if you have any questions.

Some publishers have specific requirements about making data underpinning research papers available. When a paper is accepted and the author contacts Library and Learning Services (LLS) to make the paper available on the Research Outputs Repository, LLS staff can advise on any associated data requirements.

Data Management Planning: Researchers must identify what data are expected to be created or collected during a research project, and record this in a data management plan (DMP), whether or not this is required for a funding application.

See Annex 3.

Ethical approval: Applications for ethical approval must include details of the information to be provided to research participants, where applicable, on how any data collected from them will be stored during and after the data collection phase, how long it is likely to be stored for, and how and for what purpose it may be shared in the future.

Where data is being collected from human participants, the information and consent forms provided must make reference to how long the data will be stored for, what it will be used for, and how it may be shared following the end of the project. Advice from Faculty Research Ethics Committees should be followed. Copies of the information and consent forms, and of the ethical approval granted, should be made available on the Research Data Repository with the dataset.

Storing active data: Researchers must ensure that research data are stored securely during data collection and analysis, to prevent loss or unauthorised access. Access should not be limited to a single person.

a) Data storage – **active data** (during a research project – subject to changes in institutional Information and Technology Services policies)
   i. In general, **digital data** collected or created should be stored using a University provided secure service, either shared network drives or the online storage and collaboration service, Box. Data should be transferred from any portable storage devices as quickly as possible, and deleted from the portable source.
   ii. **Digital data** that is classified as 'highly confidential' should be encrypted and stored on a desktop computer with no network connection, if possible, in an access-restricted room. **Non-digital data** that is classified as 'highly confidential' should be stored in a locked cabinet in an access-restricted room.
   iii. **Digital data** that is classified as 'confidential' should be encrypted and stored using a University provided secure service, either shared network drives or the online storage and collaboration service, Box. **Non-digital data** that is classified as 'confidential' should be stored in a locked cabinet in an access-restricted room.
   iv. **Digital data** that is classified as 'unrestricted' should be stored on the shared network drive or Box. **Non-digital data** that is classified as 'unrestricted' should be stored securely within the relevant Faculty.

Metadata: At the end of a project, researchers must create descriptive metadata records on an appropriate research data repository so that their research activity is discoverable outside the university. The metadata should be accompanied by sufficient explanatory documentation so that data are understandable and re-usable.

A record should be created on the Kingston University Research Data Repository (https://researchdata.kingston.ac.uk/) to describe: the research data; why, when and how they were generated; and where and under what conditions they may be accessed. If the data described directly support published research findings, the metadata record should be live on the Research Data Repository by the date of first online publication. If the data described do not directly support published research findings, the metadata record should be live on the Research Data Repository within 12 months of the data being generated. The final version of the data management plan should be uploaded to the Research Data Repository record.

Data Retention: Research data must be retained at the end of a project, usually for a minimum of 10 years. Following this, continued retention will be reviewed.
   i. At the end of a project, data should be assessed in terms of security classification and re-use value and archived appropriately, taking note of the minimum periods of retention at section 9.h. Archive locations should be one of the following, in order of preference:
      • An external repository provided at no cost by the research funder
      • An external repository, for example a subject repository, that can either be used at no cost, or for which full costs have been provided by the research funder.
      • Kingston University Research Data Repository https://researchdata.kingston.ac.uk/.
   ii. If a dataset is archived with an external repository, a metadata record should still be created on the Kingston University Research Data Repository, and should include details of the archive location. The archived dataset must be accessible to the Faculty Research Operations Managers.
   iii. Where data must be protected, for example for reasons of commercial confidentiality, data protection, incomplete anonymisation or third party copyright, the archived data should not be made openly available. However, it should be securely archived as a closed deposit on the Kingston University Research Data Repository with appropriate metadata.
   iv. Where there is no reason to restrict access to archived data, it should be made openly available, or available according to specified conditions being met. Metadata and publications supported by the data (see section 8.d) must include information on if/how

data may be accessed. Any open dataset must include a statement about the type of licence the data is released under, with a link to the full text of the licence[8].

Data Access Statement: Publications (for example journal articles) that rely on research findings must include a statement with information about the research data and where and under what conditions they may be accessed. This should reflect funder or publishers rules, where appropriate.

For funded research, the grant or contract terms and conditions often specify the funder's preference for acknowledgement of funding and/or a statement on where and how data may be accessed. The grant/contract holder must read the terms and conditions and make sure that they comply with them. Research Operations Managers can assist if you have any questions.

Further advice and guidance

22. For advice on funder research data management policies, data management planning and including research data management costs in research funding applications, please contact the Research, Business and Innovation Directorate (research@kingston.ac.uk).

23. For advice on creating metadata records and data licensing, please contact Library and Learning Services (eprints@kingston.ac.uk).

24. For advice on storage or sharing of digital data (active or archived), including storage limits, please contact the I&TS Service Desk either by phone on 020 8417 3355 or via the Service Desk Portal.

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[8] http://www.dcc.ac.uk/resources/how-guides/license-research-data#x1-8000

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Annex 3: Research data management planning

Researchers must identify what data are expected to be created or collected during a research project, and record this in a data management plan (DMP), whether or not this is required for a funding application.

All research, funded or unfunded, that will involve the creation of a dataset should have a data management plan (DMP) in place by the start of the project or sooner if required by the research funder (see DMPonline.dcc.ac.uk for useful templates and guidance). The DMP should follow funder requirements where applicable, but in general should include:

- A description of the kind of data the research will create, why it is necessary to create it and any restrictions to data access that may be required at the end of the project, for example due to data protection or commercial reasons.
- A clear description of the responsibilities for management of the research data within the project team (recognising that the overall responsibility lies with the Principal Investigator/PhD Supervisor)
- An explanation of how data will be securely stored and managed during the project, and how it can be securely shared between research collaborators at different institutions, if relevant. You may wish to describe arrangements for version control.
- A description of how **non-digital data** might be digitised during the research project to facilitate data sharing and archival, where appropriate.
- Details of any costs related to data management, and how they will be met.
- Any ethical or legal considerations associated with collection of the data, including research participant consent for storing and sharing data beyond the data collection period, where appropriate.

The DMP should be reviewed and updated during the research project. At the end of a research project the final version of the DMP should be deposited on the Research Data Repository and made openly available with the metadata describing the dataset, along with other explanatory documentation.

Research Development Managers can provide advice and assistance on DMP costing and development.