Royal College of Art

# Research Data Management Policy

# Contents

# Royal College of Art - Research Data Management Policy

## 1. Introduction

This policy presents the principles of good research data management (RDM) within the Royal College of Art (RCA), as well as outlining the roles and responsibilities of the RCA and its staff and students in this respect. Research data is an asset and the RCA recognises its benefit and impact for wider society, the research community, the RCA and its individual researchers. Effective management of research data allows for extension of the value of data beyond the life of any research project, through data openness and sharing, and is an important part of good research conduct. Well managed data leads to higher quality research, increased research visibility and enhanced research collaboration opportunities. RDM is important in light of increasingly collaborative nature of research, where researchers need to share data across platforms and thus need effective systems and processes for storing, accessing and sharing data securely across multi-institutional research teams.

Research data is increasingly being shared and published openly, and public research funders now request a data management plan (DMP) to be delivered with each project they fund[1]. The plans describe the plans for management of data through the project lifecycle as well plans for storage and curation of data after the project ends. Funders ask that data be published openly if possible, but demonstrate an understanding that some data may not be deemed suitable for open publishing due to legal, commercial and ethical reasons.

The concept of research data within art and design may differ somewhat from that of other disciplines. Research at the RCA encompasses a broad range of disciplines, to include Architecture, Design, Robotics and Materials Science. The variety of research data created within the RCA will take many forms and will mirror this variety of disciplines, processes and the different types of output developed through research and innovation.

RCA is a research-intensive specialist art and design university, which is committed to upholding highest standards of academic research with their staff, students and the broader research community. We aim for research excellence, through providing a supportive research environment, to research staff and students. To this end, RCA has produced this Policy and provides services and guidance to support research staff and students in undertaking best practice in RDM. To further support staff in implementing this policy, RCA facilitates appropriate digital infrastructure to ensure that data is securely stored and is findable, accessible, interoperable and re-usable by others. The RCA understands that not all data can be shared, or made open, due to legal, commercial and ethical reasons, but also that these issues should not stand in the way of good research data management.

## 2. Scope

2.1 This policy applies to all data generated through research undertaken by RCA research staff and students (henceforth referred to as researchers), either solely or in collaboration with others. This includes, but is not limited to, research sponsored by grant funding or commercial contracts awarded to RCA and to other institutions with which RCA partners in undertaking research.

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[1] For data policies of UK Research Funders see the UK Research and Innovation: Common principles on data policy at:
https://www.ukri.org/funding/information-for-award-holders/data-policy/common-principles-on-data-policy/

2.2 The research data referred to in this policy includes, but is not limited to: image data (2D, 3D and video), audio data (music, sounds) sketchbooks, log books, trials, prototypes, ceramic glaze recipes, objects, and correspondence. Furthermore, data collected from human participants in the form of fieldnotes, photographs, survey findings, interview and focus group transcripts falls under the remit of research data and this policy.

2.3 RCA researchers should familiarise themselves with this policy, and consult it prior to commencing a research project or research student supervision. An 'at a glance' summary is provided in Annex X.

2.4 This policy should be read in conjunction with other related RCA policies, including the RCA Research Ethics Policy, the RCA Information and Data Management Policy, RCA Policy on Ownership, Protection and Exploitation of Intellectual Property Rights, and RCA Open Access Policy. Links to these policy documents are in Annex B.

# 3. Definitions

3.1 *Data Management Plan:* A Data Management Plan outlines what data is likely to be created through the course of research and how. The plan also outlines plans for the preservation of the data and how/if it will be shared, stating any restrictions on access that may need to be applied.

3.2 *Data Repository:* A place for preserving digital data after a project ends, and making it available for others to use. Selecting a trusted repository for your data The RCA research repository (ePrints), a discipline specific repository or a funder repository) is beneficial in that it will relieve the researcher of the long-term management of the data and will ensure its long term accessibility.

3.3 *Principal Investigator:* A person who is ultimately responsible for a research project. This includes intellectual, managerial and financial responsibility of research.

3.4 *Permanent Digital Identifier (PDI):* A unique permanent digital identifier used to identify datasets and publications. The PDI is fixed for the lifetime of the data and ensures that data can be cited appropriately to ensure credit is given to its creator/s.

3.5 *Metadata:* Metadata provides information about the dataset. This information includes descriptive information such as keywords, author, title and also process data which will describe methods through which data is collected and processed. Good standard metadata is vital for enabling the finding and reuse of data.

3.6 *Data Licencing:* Datasets should have a licence that states clearly what the re-use rights are. This will allow researchers who find a dataset to immediately know what they are allowed to do with it. For example, licenced images or music will state how specifically whether commercial use is allowed, whether the work can be remixed or tweaked, or whether it can be downloaded only. Licencing also applies to research data.

# 4. Guiding principles

4.1 RDM is part of good research practice and as such adds value to research outputs and increases their impact. This policy will guide RCA researchers to undertake best practice in RDM to ensure excellence in research conduct and to comply with funders' requirements of data management, openness and sharing.

4.2 This policy's guiding principles take inspiration from the UK Research and Innovation (UKRI) Common principles on data policy[2], and the Concordat on Open Research Data[3] which guides the UK research community on best practices in RDM, and on making their data openly available for use wherever possible.

*Principle 1:* Good research data management is fundamental to all stages of the research process and should be established at the outset. Data with long-term value should be preserved and should remain accessible and usable for future research.

*Principle 2:* Data from research funded by public funds is a public good and should be made accessible and open, whenever possible. Open research data safeguards efficient and effective research practice, facilitates high quality research, and drives innovation.

*Principle 3:* To enable research data to be discoverable and effectively re-used by others, researchers should use the FAIR[4] principles for guidance and as far as possible make data **F**indable, **A**ccessible, **I**nteroperable and **R**eusable.

*Principle 4:* There may be ethical, legal and commercial aspects to research, which may hinder the sharing of research data. Researchers should ensure that these are considered at all stages in the research process, to avoid publishing and sharing unsuitable data.

*Principle 5:* Researchers should acknowledge and properly cite the sources of data they use in their research to recognise the intellectual contribution of their fellow researchers, who generate, preserve and share their datasets.

*Principle 6:* Researchers that publish data should provide adequate and persistent information for the research data to be cited, to support best research practice.

# 5. Responsibilities

This section presents the key roles and responsibilities of the RCA and its researchers. The RCA is fully committed to excellence in research data management and will thus provide support to researchers so that they may fulfil their responsibilities, set out in this section. Key support will be provided by RCA's Schools and Centres, Research Support Office, Library and IT as outlined here.

## 5.1 The Royal College of Art

### 5.1.1 Schools and research centres

5.1.1.1 RCA Schools and Research Centres are responsible for promoting this policy to their researchers and ensuring that they adhere to their obligations listed in section 5.2.

### 5.1.2 Research and Knowledge Exchange Office

5.1.2.1 As part of grant application review and approval process Research and Knowledge Exchange staff are responsible for ensuring that all applications include a Data Management Plan.

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[2] UK Research and Innovation, 2015, Guidance on Best Practice in the management of research data. Available online: https://www.ukri.org/files/legacy/documents/rcukcommonprinciplesondatapolicy-pdf/ (Accessed, 5th August 2019)

[3] HEFCE, RCUK, Universities UK and Wellcome Trust, 2016, Concordat on Open Research Data. Available online: https://www.ukri.org/files/legacy/documents/concordatonopenresearchdata-pdf/ (Accessed, 5th August 2019)

[4] Wilkinson, M.D., 2016, The FAIR Guiding Principles for scientific data management and stewardship. Nature, Scientific Data 3, Article Number *Scientific Data* volume 3, Article number: 160018 (2016). https://www.nature.com/articles/sdata201618

5.1.2.3. Research and Knowledge Exchange Office will advise researchers on any ethical or legal issues that may hinder data sharing/openness.

5.1.3 Library

5.1.3.1 The Scholarly Communications Librarian, with the support of IT, will provide advice on all aspects of RDM. This includes advising researchers on data repositories, metadata standards, data formats, PDIs, data citation, copyright and data licences.

5.1.2.2 The Scholarly Communications Librarian, in consultation with the Research and Knowledge Exchange Office as needed, will advise on the development of generic and funder-specific DMPs.

5.1.3.2 The Library will maintain a collection of latest versions of funder DMP templates and the RCA generic template.

5.1.3.3 The Library maintains a publicly available RCA research data catalogue in ePrints based on the information provided to them by PIs. The Library will facilitate the discovery and re-use of research data through publishing sufficient metadata and description of each dataset. Formats that aid re-use should also be used as far as possible.

5.1.4 IT

5.1.4.1 IT will provide secure storage for research data throughout the research project lifecycle.

5.1.4.2 IT will provide technical advice on data storage, backup and archiving of data.

5.1.4.3 IT will contribute technical support and advice to researchers on RDM.

5.1.4.4 IT, more specifically Information Management, will provide support on support and advice to researchers on legal issues relevant to research data and RDM, e.g. Data Protection (GDPR), and Intellectual Property Rights (IPR).

## 5.2 Principal Investigators

5.2.1 Principal Investigators (PIs) have overall responsibility for management of data created or used within their research. This extends also to data used within their research groups. RCA Research and Knowledge Exchange, Library and IT will provide guidance and services to support PIs in the responsibilities outlined here.

5.2.2 PIs are responsible for providing Data Management Plans (DMPs) for all research conducted within the RCA. Funder- specific DMP templates should be used where these are available, otherwise the RCA specific templates should be used. Support for this task will be provided to PIs by RCA Library and the Research and Knowledge Exchange Office (refer to Section 5.1 of this policy).

5.2.3 During the research process, PIs are responsible for ensuring that their research data is stored securely, to minimize risk of loss or unauthorised access, through using RCA provided services.

5.2.4 PIs are responsible for ensuring that research data from completed projects, and that of their group, are preserved and described in ways that maximise the opportunity for discoverability and re-use. This includes the responsibility for supplying adequate metadata and documentation so that data can be found and easily understood, as well as choosing an appropriate data format/s to aid re-usability. Library staff will provide support for both these tasks (refer to clause 5.1.3.1 of this policy).

5.2.5 PIs are responsible for identifying and preserving all research data that can be used to validate published research findings in the future, irrespective of whether this data can be shared or opened.

5.2.6 PIs are responsible for identifying which data can be shared. The minimum is all data that is relevant to supporting published findings. If this is data from human subjects, PIs are responsible for conducting any data sharing in a legal and ethical manner. PIs also have responsibility to know, and comply with, funder requirements in this respect.

5.2.7 PIs shall publish their sharable research data in a publicly available repository, no later than at the point of publication of findings. Should funder requirements differ, with respect to timing of deposit, or which repository should be used[5], these take precedence. Before publishing data in a repository, PIs should consider the following:

5.2.7.1 *The use of embargoes:* If the PI is not able to publish data before the funder's deadline, they should request an extension of the embargo period from the funder. This means that the data remains available only to the researcher for a set period of time.

5.2.7.2 *Copyright and Intellectual Property Rights*: PIs should not share data that infringes on copyright and IPR. Where third-party data is used, access conditions should be understood and followed and any data used should be cited appropriately. Researchers should also refer to the RCA Policy on Ownership, Protection and Exploitation of Intellectual Property Rights for further guidance.

5.2.7.3 *Commercialisation:* PIs engaged in collaborative research with commercial partners must acknowledge that data provided by these may be restricted for commercial reasons. In the case of funded research, PIs should familiarise themselves with funder requirements regarding data management and sharing from commercial research.

5.2.7.4 *Licencing:* PIs should select a licence under which to publish their data and aim for licences that permit sharing and reuse.

5.2.7.5 *Ethical concerns:* PIs should take into consideration any ethical issues that may prevent data from being shared. Researchers should refer to the RCA Research Ethics Policy for further guidance.

5.2.7.6 *Privacy:* PIs should take all measures to protect privacy of research subjects and should thus anonymise personal data before sharing it. Researchers must understand how some data may not be anonymised to a sufficient standard, which may prevent data from being shared. Researchers should refer to the RCA Research Ethics Policy and the RCA Data Protection Policy for further guidance.

5.2.8 Any software developed as part of a research project, should also be managed under this policy.

5.2.9 PIs should ensure that all published data has a Persistent Digital Identifier (PDI) and inform the Library of the location of the data, the PDI and the relevant metadata. Repositories, such as the RCA research repository (ePrints), generally issue a PDI for each dataset.

5.2.10 Funding for RDM should be requested at application stage where this is an eligible cost allowed by the research funder. Research and Knowledge Exchange Office will assist researchers with the calculation and estimation of costs.

[5] Note that researchers can deposit data to multiple repositories

5.2.11 PIs will ensure that shareable research data is made publicly available in line with funder requirements or for 10 years, whichever is longer.

# 6. Information regarding this policy

The office responsible for this policy is the Research and Knowledge Exchange Office. If any issues arise in connection with this policy, please contact rke@rca.ac.uk.

# 7. Approval and periodic review

This policy will be reviewed in line with RCA requirements, or earlier as needed.

# 8. Annexes

## A. Summary of the RDM Policy

This policy on Research Data Management (RDM) takes as a guiding principle that research data is an important asset and its considered management is part of excellence in research conduct. Well managed data will assist researchers analyse and present their findings, and should the data be deemed to be suitable for publication will allow for validation and scrutiny of research results. Research data is increasingly being shared and published openly, and public research funders now request a data management plan (DMP) to be delivered with each project they fund. The plans describe the plans for management of data through the project lifecycle as well as after it ends. Funders ask that data be published openly if possible, but demonstrate an understanding that some data may not be deemed suitable for open publishing due to legal, commercial and ethical reasons.

This policy presents the roles and responsibilities of the RCA and its research staff in this respect. The Lead researcher on each project (PI) is ultimately responsible for data management, which includes ensuring that:

- DMPs are created and maintained throughout the lifecycle of a project. If the project is publicly funded, PIs should abide by funder policies in this regard and use their specific DMP template.
- Data is stored securely to avoid data loss or unauthorised access to data.
- After a project ends, data is curated for long term storage in a data repository such as the RCA research repository (ePrints).
- An evaluation of whether data can be published openly, after a project ends, is undertaken. If data is deemed to be suitable for open publishing, that appropriate measures are taken so that data is findable, accessible, interoperable and re-useable by others.

The RCA (including Research and Knowledge Exchange Office, Library and IT) is responsible for providing support to researchers so that they can carry out their responsibilities as listed above. The RCA has dedicated expert staff and the appropriate technical infrastructure to assist researchers with all aspects of RDM.

## B. Links to relevant RCA Policies

Royal College of Art – Research Ethics Policy

Royal College of Art – Data Protection Policy

Royal College of Art – Policy on Ownership, Protection and Exploitation of Intellectual Property Rights

Royal College of Art – Information and Data Management Policy