Imperial College London

Research Data Management Guide

Research Data Management at Imperial

WHAT IS RESEARCH DATA MANAGEMENT (RDM)?

Research data management is the planning, organisation and preservation of the evidence that underpins all research conclusions. Good data management ensures data is safely stored, findable and can be used to reproduce findings.

WHY IS IT IMPORTANT?

Imperial's research data management policy
The College requires all research staff to have a plan for the storage and deposit of 'live' research data for preservation.

Reduce the risk of data loss
Data can be lost in a number of ways, from a systems malfunction to leaving a laptop on the train. Planning for the storage and preservation of data ensures it is safe and secure.

Research findings are transparent and can be verified
RDM can encourage better science. Your data can be made publicly available or accessed by readers, on request.

Data can be reused
Well-managed data can be used in future research, by colleagues or by researchers from other disciplines.

Many funders require it
You may need to submit a data management plan when you make an application for funding. Your funder may also require that you make any data publicly available.

MAKE A DATA MANAGEMENT PLAN (DMP)

A good data management plan will help to support data reuse beyond the life of the project that generated it. It can also demonstrate to participants and commercial partners how their data will be protected. Research funding bodies increasingly require grant holders to develop and implement a DMP as part of the application.

The College recommends using DMPonline to get started as it incorporates templates for all UK research funders who require a plan, and provides general and Imperial-specific guidance for each one.
www.dmponline.dcc.ac.uk

Find out how Library Services can help you create and improve your data management plan
www.imperial.ac.uk/research-data-management

STORE YOUR LIVE DATA SECURELY

Reliable and secure storage of data is essential for the success of any project and ensures that relevant datasets can be published and preserved when a project ends.

To help staff with their data storage needs, the College provides 'Box', a cloud-based service for academic and research staff, at no cost. Just use your College email address to sign up, or add it to an existing account.
www.imperialcollegelondon.app.box.com

Box provides:

- unlimited storage of data

- easy sharing within and outside the College

- automated backup

- machine learning tools to help describe your data

- integration with Microsoft Office

Box data is currently not hosted in the EU; Box should therefore not be used for sensitive data. Please contact ICT to discuss any specialised data storage needs.
www.imperial.ac.uk/ict

DEPOSIT IN A DATA REPOSITORY

Store your final data for 10+ years and make it publicly available for download and reuse.

You can browse data repositories by subject area at the Registry of Research Data Repositories (re3data) to find one for your discipline.
www.re3data.org

There are also general-purpose repositories for multidisciplinary research, or research for which there is currently no specific repository. The College recommends using Zenodo, and you may already be familiar with FigShare.
www.zenodo.org
www.figshare.com

You can use data deposited by other researchers in your own work, but be sure to check the licence for terms of use and to cite the data. Either search a data repository you think might be useful, or search all datasets that have a DataCite DOI assigned by using the British Library's online catalogue.
explore.bl.uk

TELL YOUR PUBLISHER ABOUT YOUR DATA

All research publications produced by Imperial authors must include a data access statement that includes the following information:

• How the data can be accessed: this should always include either a web link (a DOI or other persistent identifier) or the email address: **rdm-enquiries@imperial.ac.uk**

• What usage conditions the data is subject to: whether a general licence applies to all users, or whether a data sharing agreement must be entered into before access to the data is granted.

LET THE COLLEGE KNOW

The College wants to know about your research data and where it is stored. This will allow us to make your data more visible, ensure it won't get lost and help you to meet funder requirements.

When you have published a dataset, software or code, log in to Symplectic, go to My Publications, add some information about it and link it to relevant grants. The whole process takes just a few minutes.

For more information go to:
www.imperial.ac.uk/research-data-management

GLOSSARY

Data Things known or assumed as facts, making the basis of reasoning or calculation to support or validate a research project's outputs.

Data catalogue A curated collection of metadata about datasets and their data elements.

DataCite An international organisation which aims to improve data citation in order to enable online access, promote research data as a citable scholarly output, and support future reuse.

Data management plan A plan outlining what data will be created, how, and a strategy for long-term preservation and sharing.

Digital curation The selection, preservation, maintenance, and archiving of digital objects in order to add value to collections of data for present and future use.

Digital Object Identifier (DOI) A persistent identifier for a digital object. It is permanently assigned and allows an object to be referenced reliably even if its location or metadata change over time.

Metadata 'Data about data'. Metadata about research data describes the contents of a dataset and enables it to be discovered, understood and reused by others.

Open access Provision of free access to peer-reviewed academic publications without subscription charges or paywalls.

Open data Data that is accessible, digital and free of restriction on use.

Repository A digital repository is a means of managing, storing and providing access to digital content. Spiral is Imperial's institutional repository.

Symplectic The system used by Imperial staff to manage scholarly outputs of all types.

HELP AND SUPPORT

Research Data Management website

Our website provides more information and support about RDM. You can find frequently asked questions, examples of data statements and guidance on organising, describing and storing research data.
www.imperial.ac.uk/research-data-management

Your librarian and the RDM team

For questions and advice get in touch with your librarian or the RDM team at: **rdm-enquiries@imperial.ac.uk**

Contact Library Services

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