Research Data: From Funders' Expectations to the Open Science Framework

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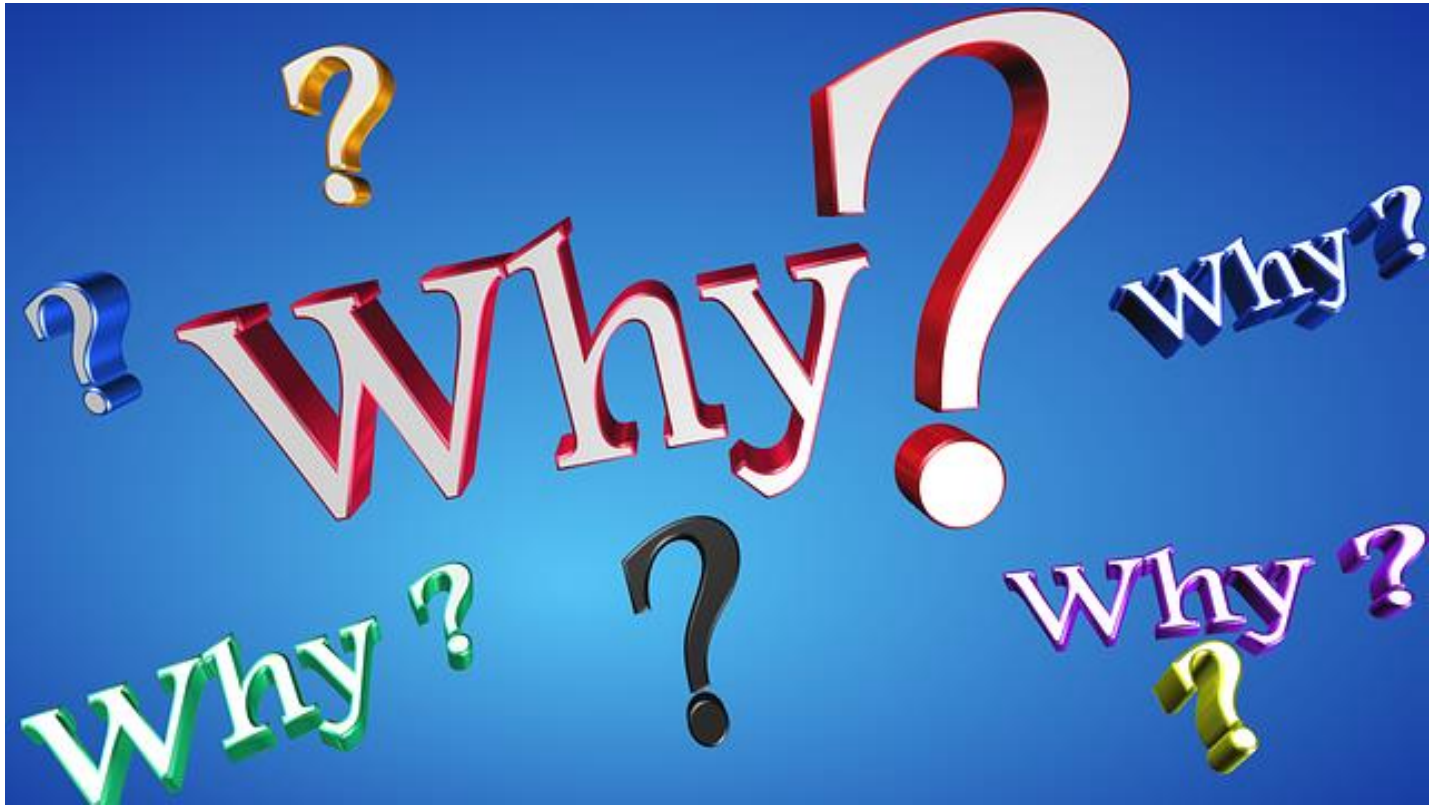
2025

Why Data Management Is Important



Meeting UKRI and Other Funder Requirements

To meet UKRI and other funder requirements for data management, researchers need to create a data management plan (DMP) at the funding application stage, make research data as open as possible, and ensure proper documentation and metadata for discoverability and reuse. Data should be preserved for a specified period, often 10 years, and deposited in a suitable repository

UKRI’s Common Principles on Research Data

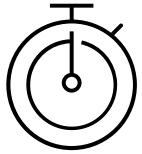
1.Public Good: Research data should be openly available with minimal restrictions.

2. Best Practice Alignment: Data management policies should align with wider standards.

3. Metadata Availability: Ensure data is discoverable and accessible with proper metadata.

4. Compliance: Follow legal, ethical, and commercial requirements for data release.

5. Privileged Use: You may have limited time to use your data exclusively before sharing.



6. Acknowledgment: Recognise contributions of researchers who generate and share data.

7. Funding Support: Costs for managing and sharing data are supported under UKRI funding.

Writing Data Management Plans

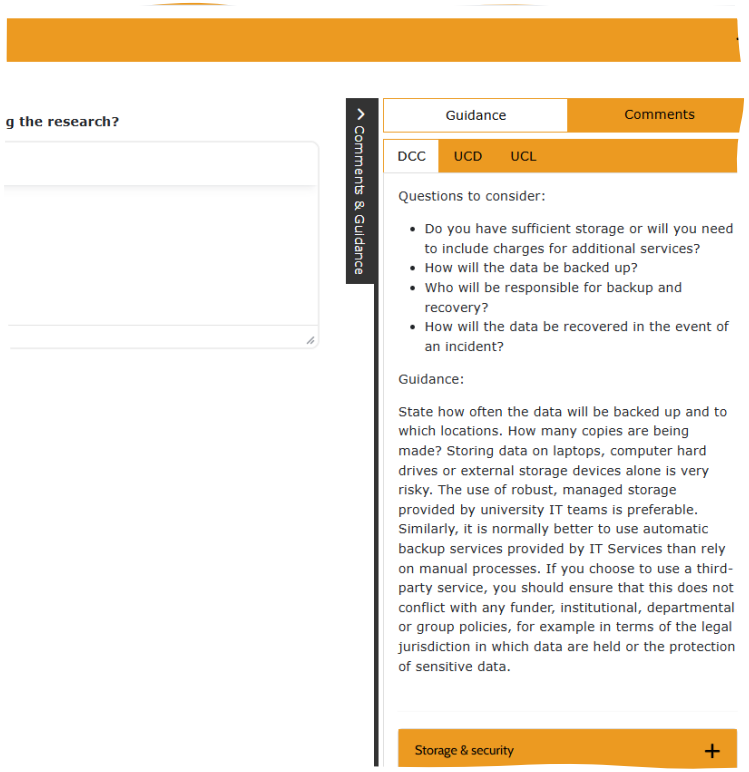
What UKRI Expects in a DMP

Required at application or post-award (varies by council)

- Must cover:
  - **Data types** and volumes
  - **Standards and metadata**
  - **Storage and backup**
  - **Ethics and legal compliance**
  - **Sharing, reuse, and preservation**
  - **Responsibilities and resources**

Tip: Use DMPonline or UKRI council templates

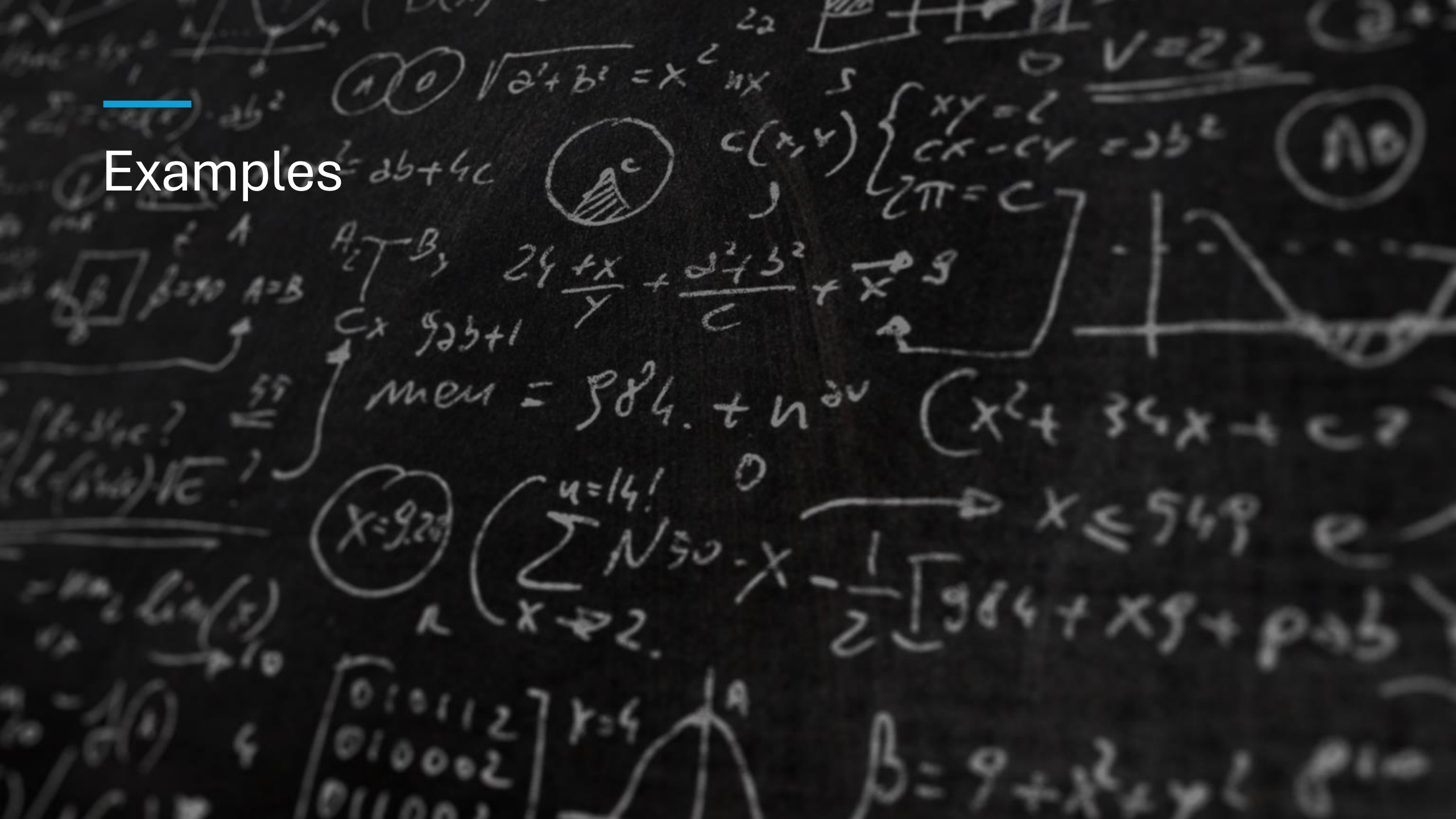
DMP Online
https://dmponline.dcc.ac.uk/



Making Your Research Data Open

- UKRI expects research data arising from its funding to be made as open as possible and as restricted as necessary, following good research data management practices
- UKRI award holders must follow data sharing policies and provide a Data Management Plan when applying for funding. - Follow the specific data sharing policies of your funding research council.
- Include a Data Management Plan and associated costs in your application.
- Researchers own the data generated and should manage copyright and IP to keep data as open as possible.

Examples



BBSRC (Biotechnology and Biological Sciences Research Council)

https://www.ukri.org/wp-content/uploads/2021/07/data-sharing-policy-v1.22.pdf

- What to keep? Data arising from high volume experimentation; low throughput data arising from long time series or cumulative approaches; models generated using systems approaches.
- When to archive and/or share? Generally, no later than publication of the main findings and within 3 years of generation of the dataset.
- Where to archive? In an existing repository or other community resource where possible.
- How long for? 10 yrs +
- Data management plan: Yes

NERC (Natural Environment Research Council)

What to keep? All data of long term value.

When to archive and/or share? Submission of data as soon as finalised version is ready. Maximum embargo period is 2 years

Where to archive? NERC Data Centres

How long for? 10 yrs +

Data management plan: Yes. An outline plan to accompany the funding application and a full DMP within the first 3-6 months of the project.

British Academy

What to keep?
All research data that supports findings and has long-term value, particularly data essential for validation and reuse.
When to archive and/or share?
Data should be shared at the earliest opportunity, ideally upon publication of results. Embargoes should be minimal and well-justified.
Where to archive?
A suitable, trusted digital repository – institutional, subject-specific, or generalist – that ensures open access and long-term preservation.
How long for?
At least 10 years, or longer if required by institutional or disciplinary standards.
Data management plan:
Yes. A data management plan (DMP) is required at the application stage, outlining data collection, storage, sharing, and preservation strategies.

Royal Society

What to keep?
All research data underpinning publications and of long-term value, including raw, processed, and analysed data.

When to archive and/or share?
At the point of publication or as soon as the final dataset is ready. Any embargo period should be kept to a minimum and justified.

Where to archive?
A recognised, trusted, and accessible repository appropriate for the data type (e.g. institutional repository, subject-specific repository, or generalist repository like Zenodo, Dryad, or Figshare).

How long for?
Minimum of 10 years after project completion or longer if required by discipline norms or repository policies.

Data management plan:
Yes. A data management and sharing plan is required as part of the grant application, outlining how data will be managed, shared, and preserved.

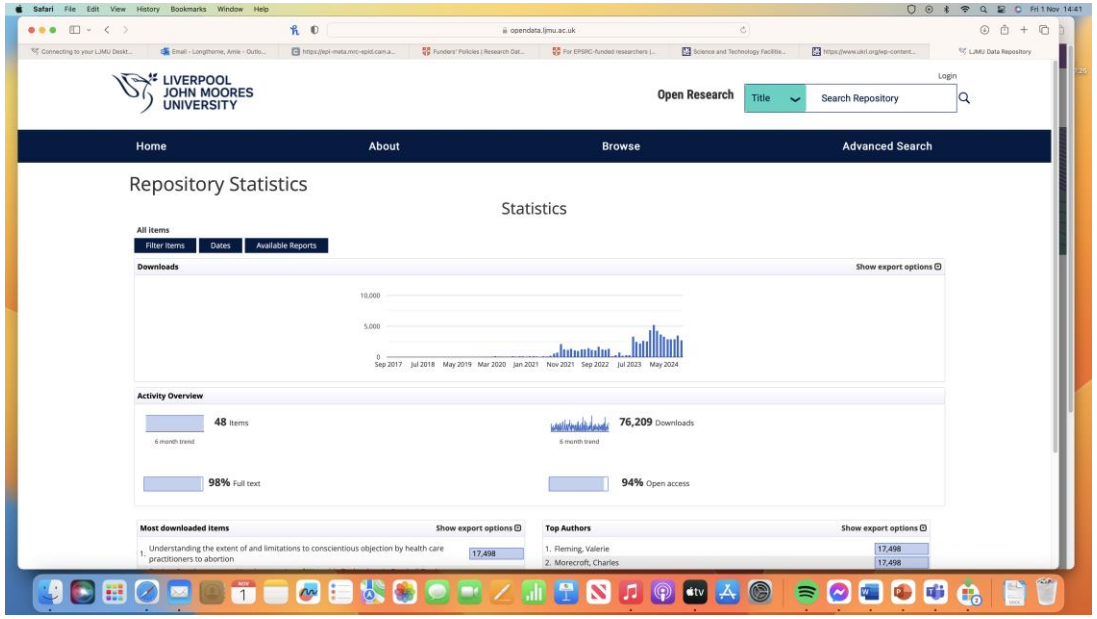
Selecting appropriate repositories

Examples:

- **General**: Zenodo, Figshare, OSF
- **Disciplinary**: arXiv (physics), GenBank (genomics), UK Data Service
- **Institutional**: LJMU's data repository (all research areas)

Use tools like re3data.org to explore and compare repositories.

Did you know we have our own LJMU data repository?



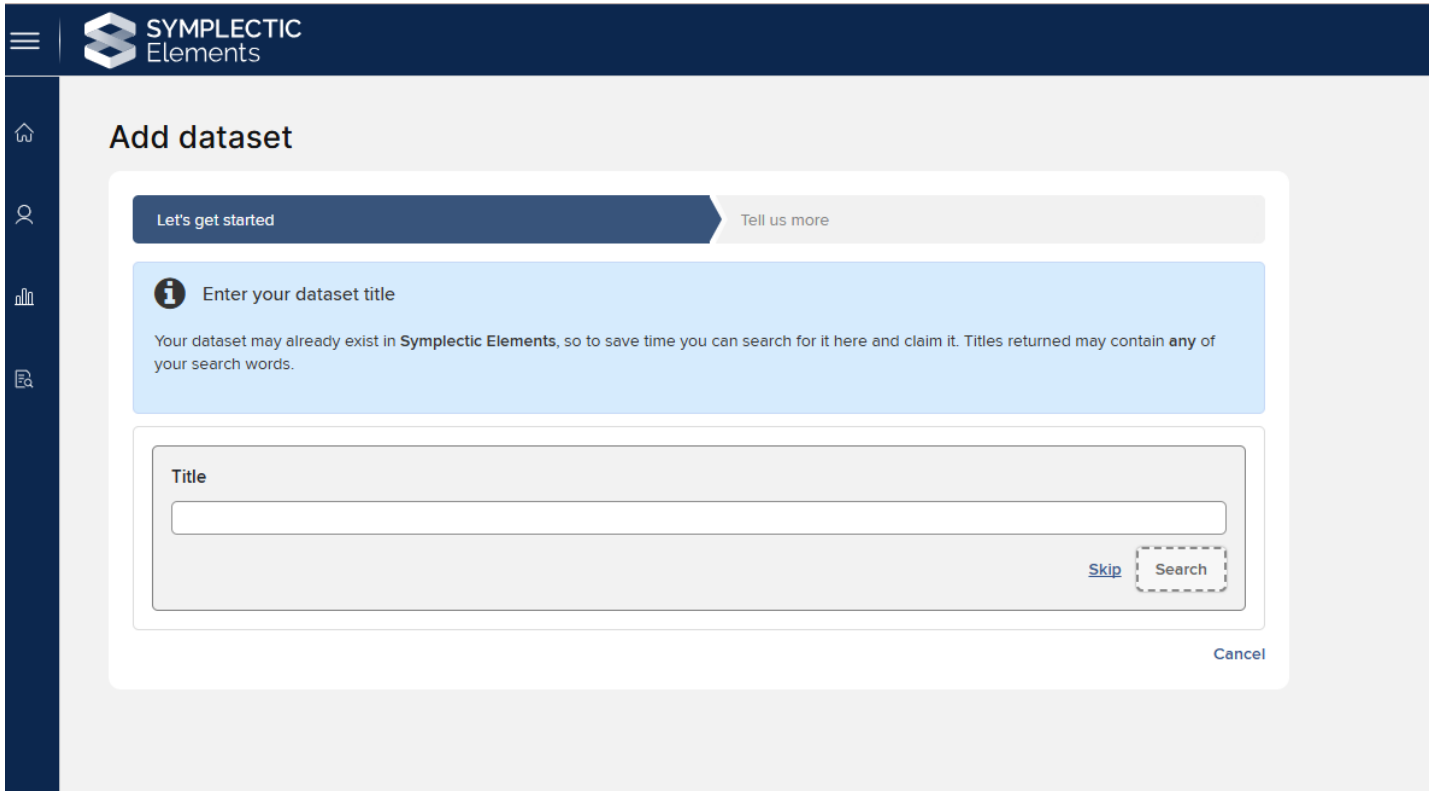
The [LJMU Research Data Repository] is the University's data repository, offering researchers the ability to store and make their research open access.

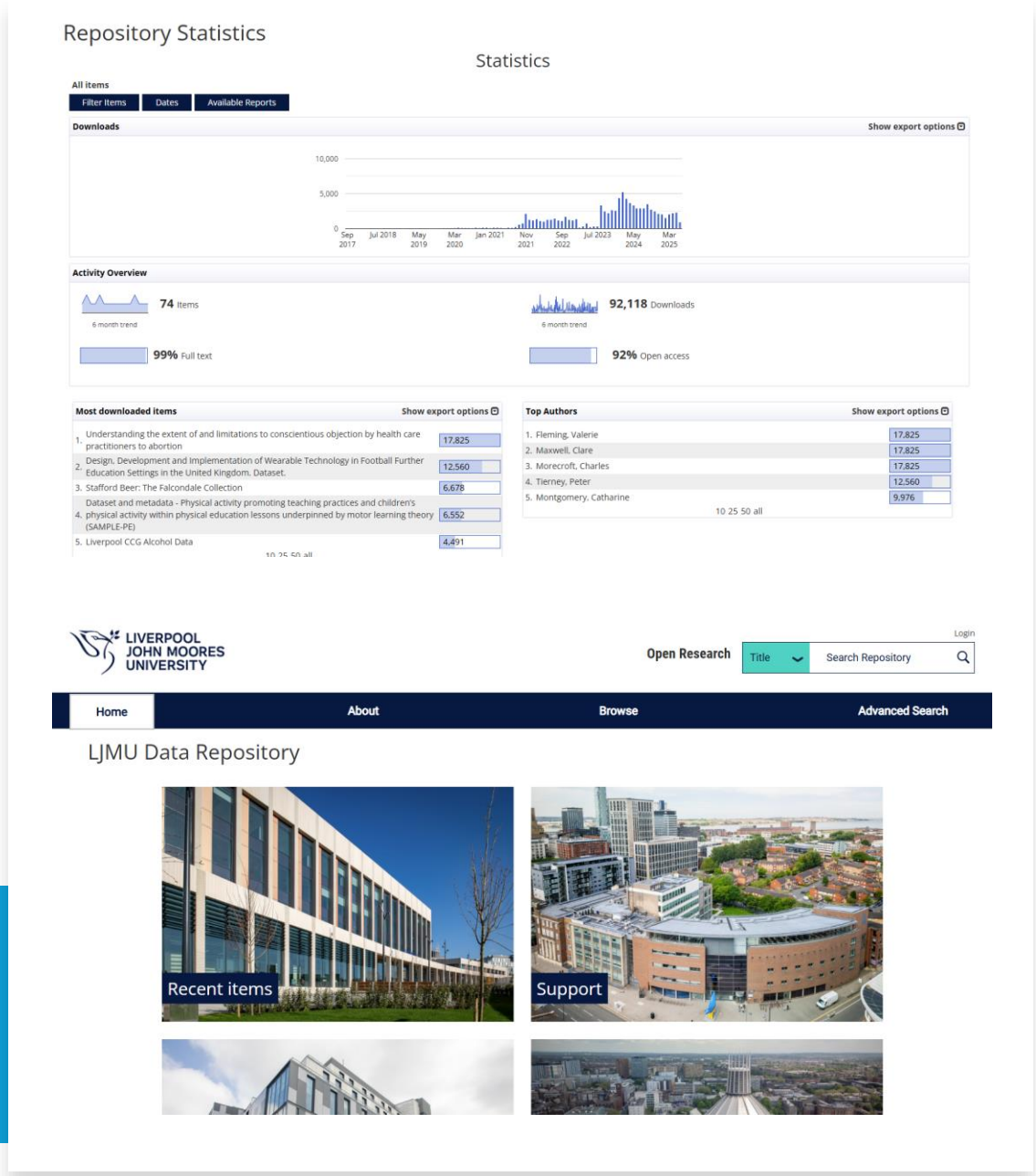
Data stored in the [LJMU Research Data Repository] can be freely accessed online by anyone and easily discovered through web search engines.

In cases where certain data is not suitable for immediate sharing due to commercial or copyright reasons, it can be securely stored in the repository until an appropriate time when it can be made public.

- Data repository deposit guide (PDF, 569KB)

How to deposit?





Repository Statistics

The main data repositories are:

- Archaeology Data Service (AHRC and NERC) is the leading data repository in the UK for archaeology and historic environment data
- Dryad is an open data publishing platform and a community committed to the open availability and routine re-use of all research data.
- UK Data Service (Reshare ESRC) Trusted access and training to use the UK's largest collection of economic, population and social research data for teaching, learning and public benefit.
- NERC data centres (CEDA Archive, Environmental Information Data Centre, and others).
- Zenodo (general-purpose data sharing services available for use.
- Figshare (a general-purpose, commercial service) that offers free access to individual users. While these general-purpose services may not offer the same level of quality control as specialised repositories, they do provide a convenient, speedy, and cost-free option for sharing data.

FAIR Principles

Findable: Data should be easy to find for both humans and computers. This includes assigning a globally unique and persistent identifier to data.

Accessible: Once found, data should be easily retrievable

Interoperable: Data should be able to be integrated with other data and should interoperate with applications or workflows for analysis, storage, and processing.

Reusable: Data should be well-described so that they can be used in the future by others.

What is a ReadME file?

LJMU template readme file (Doc, 30KB) detailing when and how the data was created, collected, and used. Expand any abbreviations in the readme file and make column or row names in spreadsheets self-explanatory or detailed in the readme file. The readme file should be in plain text and include the following information:

- Title of the dataset
- Contact details
- File name structure
- File formats
- Column headings for tabular data
- A short description of the data
- Any licenses or restrictions

What publishers ask for?

Publishers are increasingly implementing research data policies for authors as part of their journal submissions. These policies may be mandatory or strongly encouraged and may also provide guidance on the preferred data repositories to use. Here is a list of Publishers with established research data policies, please reach out to the Research Engagement Team at lst_research_support@ljmu.ac.uk and we will gladly assist in checking for any relevant policies before you submit to your preferred journal.

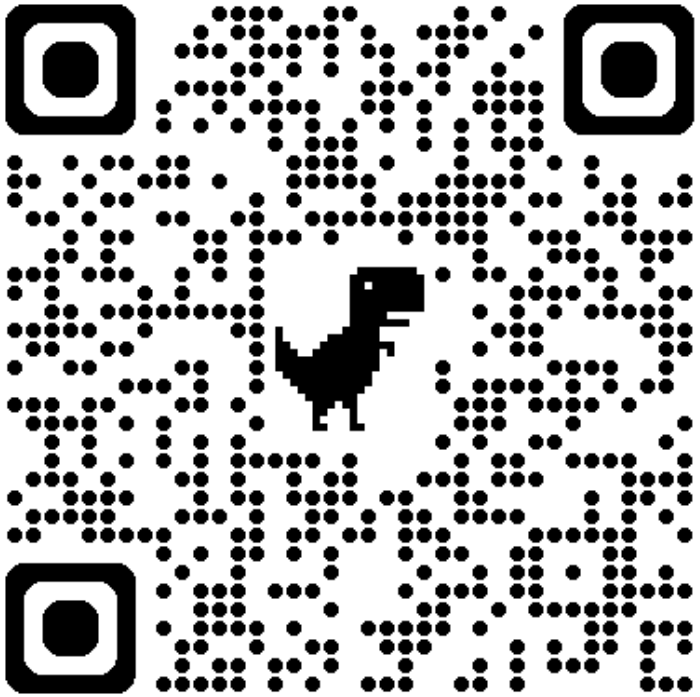
American Chemical Society (ACS)
BMJ
Cambridge University Press
Elsevier
Emerald Group Publishing Ltd.
IOP
Microbiology Society
Oxford University Press
PLOS
Portland Press
Royal Society of Chemistry
SAGE
Springer Nature
Taylor & Francis
Wiley

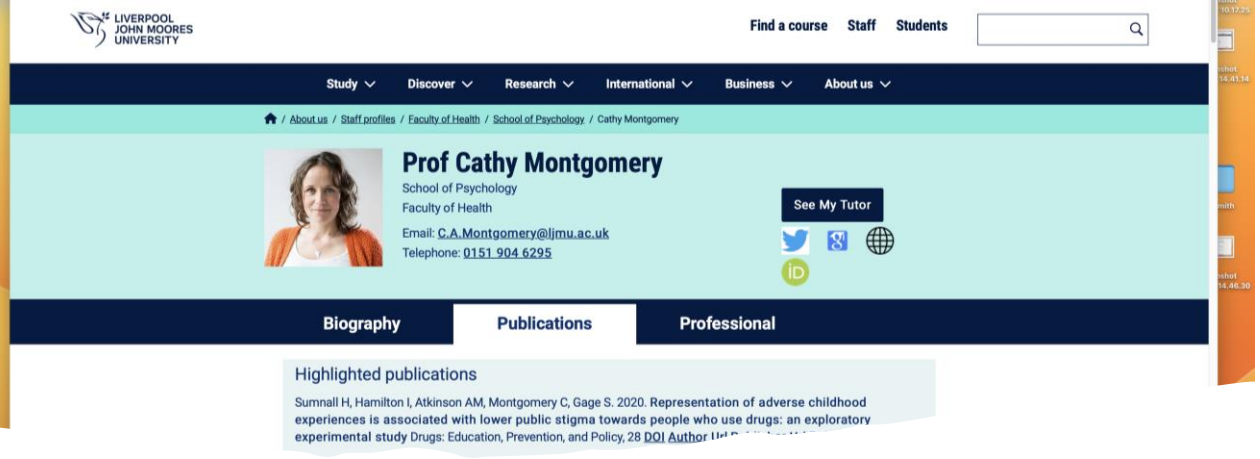
Data access statements

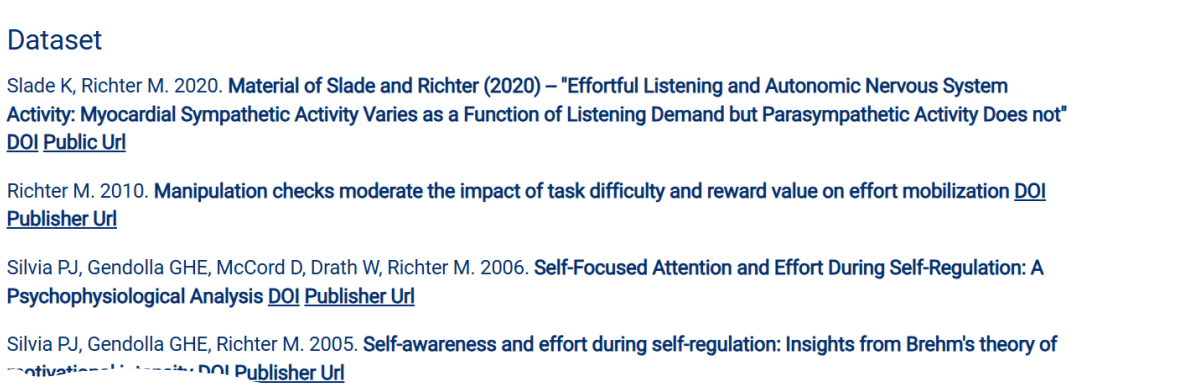
What should I include in a data access statement?

Examples of data access statements are provided below, but your statement should typically include:

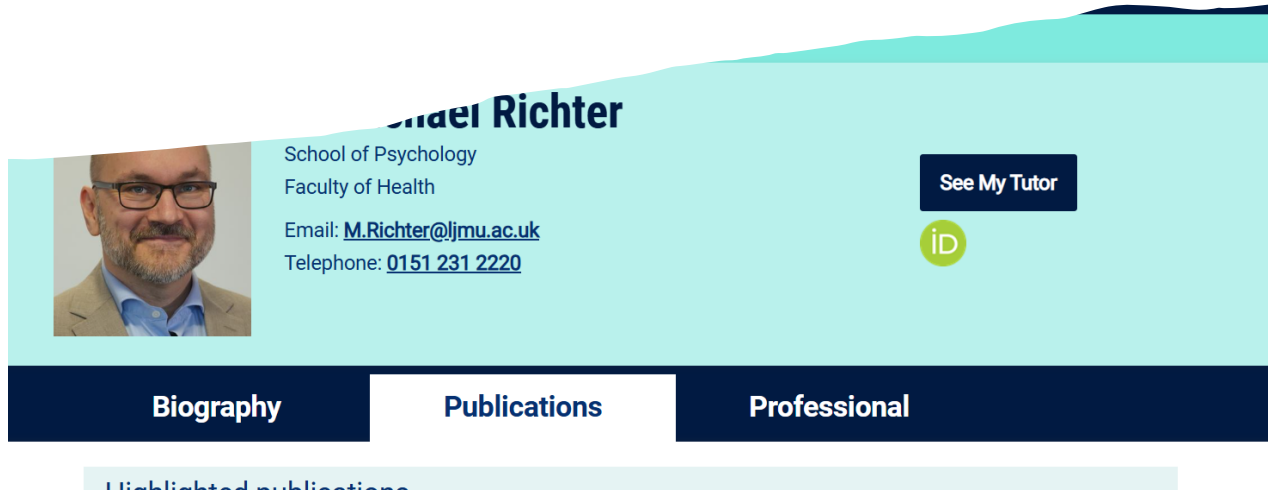
- where the data can be accessed (preferably a data repository)
- a persistent identifier, such as a Digital Object Identifier (DOI)
- details of any restrictions on accessing the data and a justifiable explanation (e.g. for ethical, legal or commercial reasons)







Update your staff profile



Cath Dishman

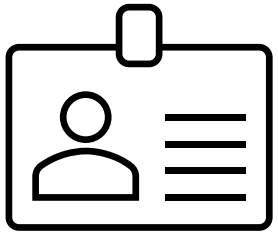
- **Open Access and Digital Scholarship Librarian**

Amie Longthorne

- **Research Data Management Specialist**

Katherine Stephan

- **Research Engagement Librarian**



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Calendar of events: https://unical.ljmu.ac.uk/?team=re

THANK YOU