Research Data Management in Europe, the UK and the University of Edinburgh

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Overview

About me and the University of Edinburgh

About Research Data Management (RDM):
  – in Europe
  – In the UK
  – At the University of Edinburgh
The University of Edinburgh

- Founded in 1583: Sixth-oldest university in the English-speaking world and one of Scotland's ancient universities
- Largest university in Scotland with 13,800 staff and 35,500 students
- Research-led institution - member of the Russell Group, Coimbra Group, LERU and Universitas 21
- 21 Nobel laureates affiliated with the University
Where is Edinburgh?
Converged Library & IT

- IT Infrastructure
- IT Applications
- Learning, Teaching, and Web
- User Services Division
- EDINA and the Data Library
- Library & University Collections
- DCC (Digital Curation Centre)
Library Research Support Teams

Library Research Support

- Scholarly Communications
- Research Information Systems
- Research Data Management
Scholarly Communications Team

- Provides support for staff and students regarding Open Access publications
- Advises on matters to do with copyright
- Manages funds to pay for Open Access article-processing charges (APCs)
Research Information Systems Team

• Manages the University’s three research information systems (PURE, Worktribe, Research Professional)

• Provides support and training to use these systems

• Provides reports and management information to support decision-making and University strategy
Research Data Management Team

• Two members of Library staff work with another five staff based in EDINA

• Provide training and advice to staff and students on all matters relating to RDM

• Manages funds to pay for Open Access article-processing charges (APCs)
RDM in Europe
RDM in Europe

“The production of data is expanding at an astonishing rate: experts now point to a 4300% increase in annual data generation by 2020. Despite this, research institutes and universities often have no standard policy for researchers on how to store their research data.”
European Commission Report

October 2016 - European Commission Report
“Realising the European Open Science Cloud”

First report of the High Level Expert Group on the European Open Science Cloud
“They estimate that on average about 5% of total research expenditure should be spent on properly managing and 'stewarding' data in an integrated fashion.”

http://ec.europa.eu/research/opendata/index.cfm?pg=open-science-cloud
FAIR Data Management in Horizon 2020

Research data should be findable, accessible, interoperable and reusable (FAIR)

Researchers can meet these requirements by developing a Data Management Plan (DMP)

There are many European projects to encourage researchers to get into the habit of writing Data Management Plans.
RDM in the United Kingdom
UK Research Data Concordat

1. Open access to research data is an enabler of high quality research, a facilitator of innovation and safeguards good research practice.

2. There are sound reasons why the openness of research data may need to be restricted but any restrictions must be justified and justifiable.

3. Open access to research data carries a significant cost, which should be respected by all parties.
UK Research Data Concordat

4. The right of the creators of research data to reasonable first use is recognised.

Researchers who generate original data must have reasonable right of exclusive first use for an appropriate and well-defined period, which may vary by subject and disciplinary area.

5. Use of others’ data should always conform to legal, ethical and regulatory frameworks including appropriate acknowledgement.
6. Good data management is fundamental to all stages of the research process and should be established at the outset.

*The management of research data is considered from the beginning of the research process and due consideration is given to how research data are to be managed.*

7. Data curation is vital to make data useful for others and for long-term preservation of data.
8. Data supporting publications should be accessible by the publication date and should be in a citeable form.

*It is vital that the data supporting and underlying published research findings should, as far as possible, be made open by the time the findings are published and be preserved for an appropriate period.*

9. Support for the development of appropriate data skills is recognised as a responsibility for all stakeholders.

10. Regular reviews of progress towards open research data should be undertaken.
RDM at the University of Edinburgh
How we classify our services

Data Management Support

Data Management Planning
Active Data Infrastructure
Data Stewardship
How we classify our services

Data Management Support

Data Management Planning
Active Data Infrastructure
Data Stewardship

Before research  During research  After research
Data Management Planning Systems
Data Management Planning

• DMPOnline

DMPOnline: Nationally developed tool by the Digital Curation Centre, funded by Jisc.
New data management plan

Create a new plan

Please select from the following drop-downs so we can determine what questions and guidance should be displayed in your plan.

If you aren’t responding to specific requirements from a funder or an institution, [select here to write a generic DMP](#) based on the most common themes.

<table>
<thead>
<tr>
<th>If applying for funding, select your research funder.</th>
<th>Engineering and Physical Sciences Research Council</th>
<th>Not applicable/not listed.</th>
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<tr>
<td>Otherwise leave blank.</td>
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<tr>
<th>To see institutional questions and/or guidance, select your organisation.</th>
<th>University of Edinburgh</th>
<th>Not applicable/not listed.</th>
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<tbody>
<tr>
<td>You may leave blank or select a different organisation to your own.</td>
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<th>Tick to select any other sources of guidance you wish to see.</th>
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<tr>
<td>DCC guidance</td>
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<td>Roslin Institute</td>
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Create plan
New data management plan

<table>
<thead>
<tr>
<th>Sections</th>
<th>Questions</th>
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<tbody>
<tr>
<td>Data Collection</td>
<td>- What data will you collect or create?</td>
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<tr>
<td></td>
<td>- How will the data be collected or created?</td>
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<tr>
<td>Documentation and Metadata</td>
<td>- What documentation and metadata will accompany the data?</td>
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<tr>
<td>Ethics and Legal Compliance</td>
<td>- How will you manage any ethical issues?</td>
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<td></td>
<td>- How will you manage copyright and Intellectual Property Rights (IPR) issues?</td>
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<tr>
<td>Storage and Backup</td>
<td>- How will the data be stored and backed up during the research?</td>
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<td></td>
<td>- How will you manage access and security?</td>
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<tr>
<td>Selection and Preservation</td>
<td>- Which data are of long-term value and should be retained, shared, and/or preserved?</td>
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<td>- What is the long-term preservation plan for the dataset?</td>
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<tr>
<td>Data Sharing</td>
<td>- How will you share the data?</td>
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<td>- Are any restrictions on data sharing required?</td>
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<tr>
<td>Responsibilities and Resources</td>
<td>- Who will be responsible for data management?</td>
</tr>
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<td></td>
<td>- What resources will you require to deliver your plan?</td>
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Plans can be exported as PDF, in the format specified by the funder.
Active Data Infrastructure

- 0.5TB (500GB) for all researchers – staff and postgraduate researchers
- Extra storage can be purchased - £200 per TB per year
- DataSync – for working collaboratively
- Data Safe Haven – for sensitive data
Data Management Support

- Data Management Planning
- Active Data Infrastructure
- Data Stewardship
Three data Stewardship systems

• Data Asset Register
  – Data Asset Register *(describe)*.

• DataShare
  – DataShare *(share)*.

• Data Vault
  – Data Vault *(archive)*.
Thank You!

Questions, comments, comparisons?

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