Introduction to RDM: benefits, drivers and the role of the university

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A Quick Introduction to RDM

- Explain what research data management entails and why should you care about it
- Review of who should be involved in managing data
- Introduction to data management plans and tips on completing them
What is Research Data Management?

• Caring for,
• Facilitating access to,
• Preserving and
• Adding value to digital research data throughout its lifecycle.
What activities are involved in RDM?

- Data Management Planning
- Creating data
- Documenting data
- Accessing / using data
- Storage and backup
- Sharing data
- Preserving data
What do we mean by ‘research data’?

- Research data are collected, observed or created, for the purposes of analysis to produce and validate original research results.

- Both analogue and digital materials are 'data'.

- Lab notebooks and software may be classed as 'data'.

- Digital data can be:
  - created in a digital form ('born digital')
  - converted to a digital form (digitised)
Exercise:
What research data do you produce?

- Around your tables, discuss some of the types of data you produce during your research
- You have 5 minutes
- Feed back
Research data can be anything!
What are the Drivers for Managing and Sharing Data?

Organisation for Economic Co-operation and Development describes data as a public good that should be made available.

Research Councils UK in its code of good research conduct says data should be preserved and accessible for 10 years +

Research Funder data policies increasingly demanding of institutional commitment and provisions...
Funder Expectations

• Familiarise yourselves with your funders’ demands with respect to data management

• What are your sources of funding?

EPSRC expected all those institutions it funds to:
• develop a roadmap that aligns their policies and processes with EPSRC’s expectations by 1st May 2012;
• be fully compliant with these expectations by 1st May 2015.
• Compliance will be monitored and non-compliance investigated.
• Failure to share research data could result in the imposition of sanctions.
Make the most of local support

• Local expertise more widespread than you think
  – Ethics committees
  – Data protection office
  – IT Services
  – Repository Service

• Don’t go it alone!

From University of Glasgow’s Data Management micro-site
Don’t forget the benefits!

• Scholarly communication/access to data
• Re-purposing and re-use of data
• Stimulating new networks/collaborations & new research
• Verification of research/research integrity
• Re-purposing data for new audiences
• Availability of data underpinning journal articles
• Increased visibility/citation
Data management planning
Data Management Planning

DMPs are written at the start of a project to define:

- What data will be collected or created?
- How the data will be documented and described?
- Where the data will be stored?
- Who will be responsible for data security and backup?
- Which data will be shared and/or preserved?
- How the data will be shared and with whom?
Why develop a DMP?

DMPs are often submitted with grant applications, but are useful whenever researchers are creating data.

They can help researchers to:

• Make informed decisions to anticipate & avoid problems
• Avoid duplication, data loss and security breaches
• Develop procedures early on for consistency
• Ensure data are accurate, complete, reliable and secure
• Plan to share data and increase impact
Which funders require a DMP?

![chart showing coverage and stipulations for various funders]

www.dcc.ac.uk/resources/policy-and-legal/overview-funders-data-policies
Five common themes across funders

- Description of data to be collected / created (i.e. content, type, format, volume...)
- Standards / methodologies for data collection & management
- Ethics and Intellectual Property (highlight any restrictions on data sharing e.g. embargoes, confidentiality)
- Plans for data sharing and access (i.e. how, when, to whom)
- Strategy for long-term preservation
What do research funders want?

- A brief plan submitted in grant applications, and in the case of NERC, a more detailed plan once funded
- 1-3 sides of A4 as attachment or a section in Je-S form
- Typically a prose statement covering suggested themes
- Outline data management and sharing plans, justifying decisions and any limitations
How to share research data

• Use appropriate repositories
  – http://databib.org

• License the data so it is clear how it can be reused
  – www.dcc.ac.uk/resources/how-guides/license-research-data

• Make sure it’s clear how to cite the data
  – http://www.dcc.ac.uk/resources/how-guides/cite-datasets
Tools and resources to help you develop a data management plan

http://www.dcc.ac.uk/resources/data-management-plans
What is DMP Online?

A web-based tool to help researchers write plans

It features:

• Templates based on different requirements
• Tailored guidance (disciplinary, funder etc)
• Customised exports to a variety of formats
• Ability to share DMPs with others

https://dmponline.dcc.ac.uk
How does DMP Online work?

1. Start a plan
2. Pick relevant funder template
3. Get a list of their specific questions
3 phases of DMPs - Pre Award

Create a plan at the bid stage

...answer the questions based on initial research ideas
3 phases of DMPs - In project

Once funded, flesh the plan out (roles, etc)

...answer the questions based on detailed workplan
3 phases of DMPs - Post project

...answer the questions based on the outputs that are being kept

When project is finished
Tips to share: writing DMPs

- Keep it simple, short and specific
- Seek advice - consult and collaborate
- Base plans on available skills and support
- Make sure implementation is feasible
- Justify any resources or restrictions needed

Also see: [http://www.youtube.com/watch?v=7OJtiA53-Fk](http://www.youtube.com/watch?v=7OJtiA53-Fk)
But remember...

- Start early – don’t wait til the last minute!
- The plan shouldn’t be written in isolation
- The plan will - and should - change over life of project
- Get into the habit of update the plan with regular project updates
- Use plan as a communication tool - with partners, funders and yourself!
Thank you

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