

# DIY Research Data Management Training Kit for Librarians

## Data sharing



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# Data Sharing

## What it is

*“... the practice of making data used for scholarly research available to others.” [Wikipedia]*

## Who's involved

- the data sharer
- the data repository
- the secondary data user
- support staff!



# Drivers for sharing

## Openness

Open science, open source, open standards  
open knowledge, open government, open  
architecture, open content *and* ....



# Drivers for sharing

## Open Data!

*“... a philosophy and practice requiring that certain data are freely available to everyone, without restrictions of copyright, patents or other mechanisms for control.”*

[Wikipedia & elsewhere]



# Drivers for data sharing

## National research policies

- **Research Councils UK** *“Publicly funded research data are a public good, produced in the public interest, which should be made openly available with as few restrictions as possible in a timely and responsible manner that does not harm intellectual property.”*
- **Economic & Social Research Council** *“... publicly funded research data ... valuable, long-term resources that, where practical, must be made available for secondary, scientific research.”*
- **Medical Research Council** *“... publicly-funded research data ... should be openly available to the maximum extent possible.”*
- **Wellcome Trust** *“... aim(s) to ensure that the data generated by the research we support is managed and shared in a way that maximises the benefit to the public.”*



# Drivers for data sharing

## Institutional mission and policy

- **University of Edinburgh mission** *“The creation, dissemination and curation of knowledge.”*
- **University of Edinburgh RDM policy** *“RDM plans must ensure that research data are available for access and re-use where appropriate and under appropriate safeguards.”*



# Drivers for sharing

## Why not!

*“... we have the technologies to permit worldwide availability and distributed process of scientific data, broadening collaboration and accelerating the pace and depth of discovery ...”* [John Willbanks, VP Science, Creative Commons – in Wikipedia]



# Barriers to data sharing

*“Scientists would rather share their toothbrush than their data!”* [Carole Goble, Keynote address, EGEE (Enabling Grids for EsienceE) ‘06 Conference.]

## Barriers to sharing can relate to ...

- the Researcher - intellectual property issues
- the Institution - unrealised commercial value
- the Subject - confidentiality





# Data sharing benefits ...

## ... Research & Society

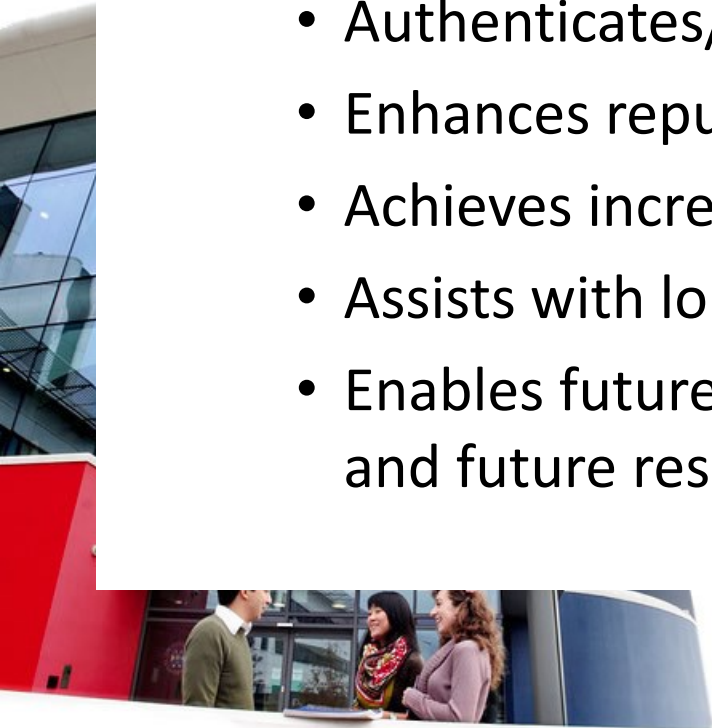
- Avoids duplication of effort and resources.
- Makes publicly available that which has been publicly funded.
- Maximises return on research investment.
- Academic and scientific integrity
  - Increases transparency & accountability
  - Facilitates scrutiny of research findings
  - Prevents fraud
- Extends reach of original research.
- Facilitates and promotes new lines of enquiry.
- Fosters collaboration.
- Allows the creation of new datasets
- Provides datasets for education and training



# Data sharing benefits ...

## ... the Researcher

- Facilitates compliance with funding council requirements
- Authenticates/validates research
- Enhances reputation through increased reach & impact
- Achieves increased visibility of research
- Assists with long term data storage
- Enables future retrieval of the data by the researcher and future researchers



# Planning for data sharing

*“Everyone in a research team should have a clear sense of their responsibilities in ensuring that ... research data are of the highest quality; ... are well documented so that other researchers can access, understand, use and add value to them ... independently of the original investigators.”*

[MRC Guidance on Data Management Plans]

## Issues to consider

- Future ‘shareability’ of the data: format, software, anonymisation, documentation, ethics, consent & confidentiality
- Description & documentation
- Future rights management & licensing
- Timescale for release
- Infrastructure for sharing



# Ways of sharing data

## Research-funder repository

- e.g. ESRC Data Store  
<http://store.data-archive.ac.uk/store/>

## Institutional repository

- e.g. Edinburgh DataShare  
<http://datashare.is.ed.ac.uk/>

## Discipline-specific repository

- e.g. Figshare  
<http://figshare.com/>



# RDM Training for Liaison Librarians

Thank you!





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