UNIVERSITY OF EXETER

Data Management: The New Frontier for Libraries

Greg Simpson – Research Data Officer

(potential) library services in RDM

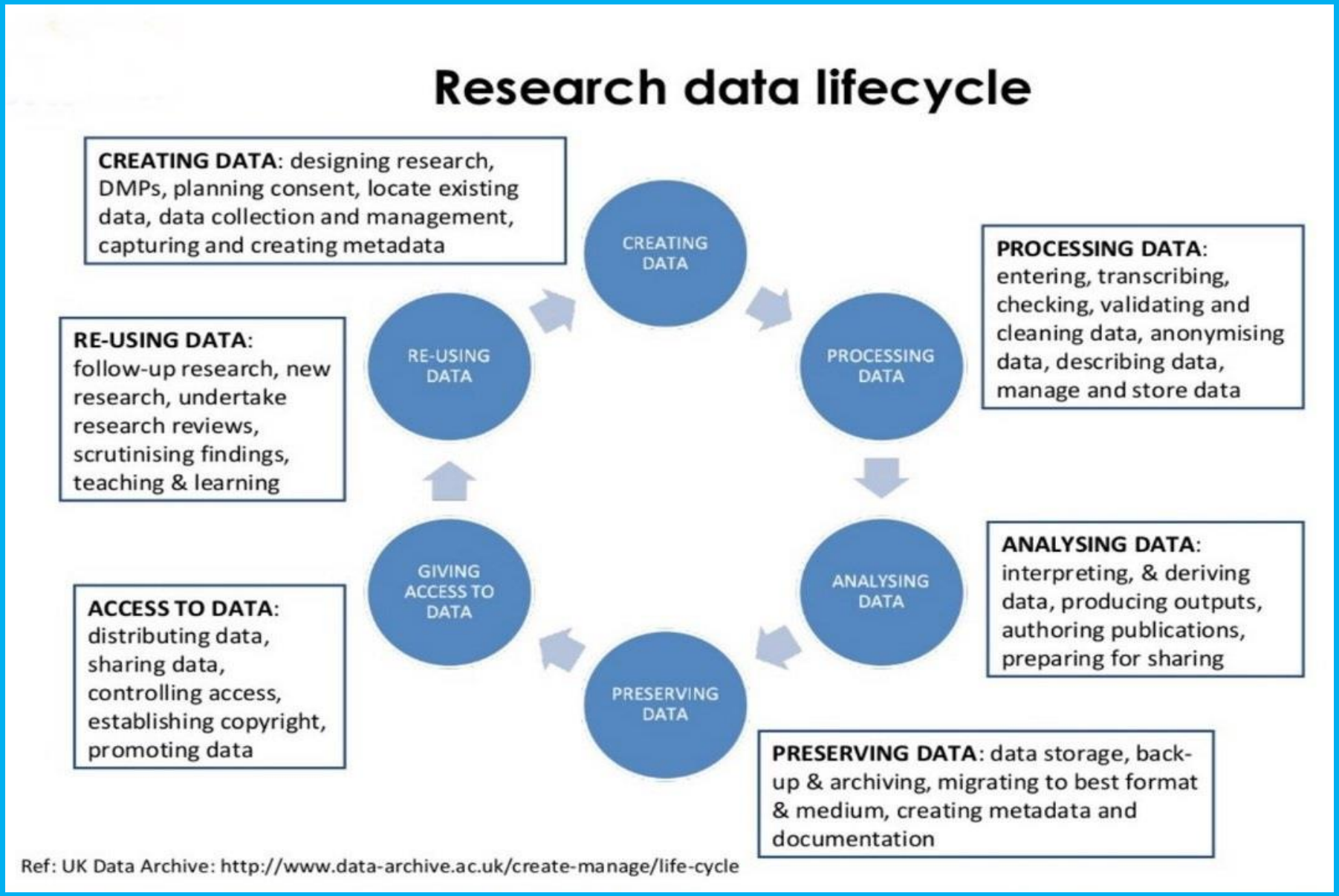
Stage	Services	Other stakeholders
DMP Planning	• Assistance with data management planning • Training graduate students and researchers about data management	• Researchers • IT department (if DMP Online) • Administrators
Collection/production of data	• Help with organizing data, adopting standards and ensuring comprehensive metadata • Local storage	• Researchers • IT department (if big data)
Analysis	• Tools for active data management (e.g. Open Science Framework or http://www.eric-project.org)	• Researchers • IT department (if big data)
Data dissemination and sharing	• Managing a data repository • Minting/assigning DOIs • Indexing and registering datasets • Licensing and privacy issues	• Researchers • IT department • Administrators • Ethics boards
Re-use	• Data discovery	• Researchers

Practical steps researchers can take

- Write a data management or a sharing plan

- Make sure data are shareable and can be understood:
  - Obtain consent to share
  - Do not share identities without consent
  - Use open and standard formats
  - Provide context and documentation
  - Protect your data at all stages

The research data lifecycle



Funding bodies' requirements

- Funders are increasingly requiring researchers to meet certain data management criteria
- When applying for funding, you may need to submit a technical or data management plan
- You may be asked to make your data available through an archive
- SHERPA JULIET provides a useful summary of funding bodies' policies

Data-related policies in the UK

● Full Coverage ◐ Partial Coverage ○ No Coverage

	Policy Coverage		Policy Stipulations					Support Provided			
Research Funders	Published outputs	Data	Time limits	Data plan	Access/ sharing	Long-term curation	Monitoring	Guidance	Repository	Data centre	Costs
AHRC	●	●	●	●	●	◐	○	●	○	◐	○
BBSRC	●	●	●	●	●	●	●	●	●	◐	●
CRUK	●	●	●	●	●	●	●	◐	●	○	○
EPSRC	●	●	●	◐	●	●	●	◐	○	○	●
ESRC	●	●	●	●	●	●	●	●	●	●	◐
MRC	●	●	●	●	●	●	○	◐	●	○	◐
NERC	●	●	●	●	●	●	●	●	●	●	◐
STFC	●	●	●	●	●	●	●	◐	●	◐	○
Wellcome Trust	●	●	●	●	●	●	●	●	●	◐	●

http://www.dcc.ac.uk/resources/policy-and-legal/overview-funders-data-policies

Common DMP questions

- What data will be created (format, types and size) and how?
- How will the data be documented and described?
- How will you manage ethics and Intellectual Property?
- What are the plans for data sharing and access?
- What is the strategy for long-term preservation?

http://.dmponline.dcc.ac.uk

Signed in as Gregory Simpson

DMP ONLINE

View plans | Create plan | About | Future plans | Help

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.

If applying for funding, select your research funder.

Otherwise leave blank.

Funder

Not applicable/not listed.

Contact us | Terms of use | DMPonline previous version

DCC Jisc

What does DMPonline do?

A web-based tool that enables users to...

i. **Create, store and update** multiple versions of Data Management Plans across the research lifecycle
ii. **Meet a variety of specific data-related requirements** (from funders, institutions, publishers, etc.)
iii. **Get tailored guidance** on best practice and helpful contacts, at the point of need
iv. **Customise, export and share DMPs** in a variety of formats in order to facilitate communications within and beyond research projects

** N.B. The templates have varying degrees of endorsement from funders, stakeholder communities, etc. Plans are currently being discussed for UoE to create a customised template for researchers…*

DMPonline: possible export formats

For human readership…

- Pleasant formatting

- Editable. Can be used in conjunction with (e.g. MS Sharepoint)

- Removes all formatting

For machine readership…

- Facilitates quick public sharing

- Compatible with API for linking with other systems

- Minimal formatting

Research Data Repositories

- Digital Research data is best preserved and published using a research data repository

- A repository is an online database service, an archive that manages the long-term storage and preservation of digital resources and provides a catalogue for discovery and access

- Most data repositories do not charge to deposit research data, though many require registration

Choosing a repository

- Best repository to choose for your research data will be a national data centre or discipline specialist repository, because they have the expertise and resources to deal with particular types of data

Data Centres and portals:

- UK Data Service - funded by the ESRC
- NERC data centres
- ADS (Archaeology Data Service)
- EMBL-EBI (European Molecular Biology Laboratory - European Bioinformatics Institute)

Choosing a repository (cont.)

Registries of research data repositories:

- Re3Data provides a searchable directory of research data repositories.
- Research Pipeline is a guide to the world's free data
- Biosharing.org a curated, searchable portal of data standards, databases and policies in the life, environmental and biomedical sciences.
- There are many discipline specific repositories available, whilst some are multi-disciplinary such as:
- Figshare
- Zenodo
- Dryad

NIHR Data Policy

- Revised in April 2014, NIHR policy on Open Access now covers not only published peer-reviewed research articles, but also the research materials – such as data, samples and models – that underpin them.
- The NIHR, along with other UK biomedical research funders, is a partner in the European version of PubMedCentral (Europe PMC).
- Europe PMC provides a permanent and free-to-access online digital archive of the full text, peer reviewed research publications and datasets that arise from research funded by the NIHR.
- All NIHR researchers are now required to prepare and submit a statement on how underlying research materials, such as data, samples or models, can be accessed.
- Although the NIHR expects researchers to consider and plan for data access, the policy does not require that data must be made open, nor does it specify how long data must be retained for.

NIHR Data Guidance

The guideline states:

Making clinical trial data sets available to investigators beyond the original research team can improve patient care, advance medical knowledge and provide better value for money from health research.

Data sharing achieves many important goals for the scientific community, such as:

- Reinforcing open scientific inquiry.
- Encouraging diversity of analysis and opinion.
- Promoting new research, testing of new or alternative hypotheses and methods of analysis.
- Supporting studies on data collection methods and measurement.
- Facilitating education of new researchers.

Data sharing and the NIHR Journals Library

Your final report should include a statement about your data sharing and accessibility. The statement should provide a clear and positive indication of where and when the data will be shared.

Possible responses might state that all available data:

- ✓ Can be obtained from the corresponding author
- ✓ Is included as an appendix to the report
- ✓ Can be obtained from the corresponding author via the (XXX) repository

The Data Access Statement

All research publications **must** include a statement on how the underlying data can be accessed (a "data access statement"). This is in line with RCUK and individual funder policies.

A data access statement should include the following key pieces of information:

- **How** the data can be accessed: where it can be downloaded from or who must be contacted to request access.

  This should **always** include either a web link (a DOI or other persistent identifier if possible) or a departmental/group email address (not a personal email address).

- **What conditions** use of 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.

Examples of data sharing statements

Some examples of data sharing statements you might include in your report:

- ‘All available data can be obtained by contacting the corresponding author.’
- 'We shall make data available to the scientific community with as few restrictions as feasible, while retaining exclusive use until the publication of major outputs. Anonymised data will be deposited here <link> to encourage wider use.’
- ‘The data will be made available via <link/corresponding author> within <x> months of publication, this is due to <insert reason>.’
- 'Due to <insert reasons>, there is no data that can be shared.’

Clinical Trials Toolkit

- The Clinical Trials Regulations define the archiving requirements for Clinical Trials of Investigational Medicinal Products (CTIMPs).

- All essential documents should be archived and this includes essential documents held by investigators, sponsors and others involved in the conduct of a clinical trial (including services departments such as pharmacy, laboratories and radiology).

- Require the sponsor to appoint '**named individuals**' for archiving to ensure all requirements are met and systems are in place to track and retrieve archived documents

- The **Joint Project Notes on Archiving** give further information on the storage and destruction of essential documents and the duration/timelines appropriate for archiving: http://www.ct-toolkit.ac.uk/routemap/archiving/downloads/archiving-joint-project-notes.pdf

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Academics should deposit publications in ORE via Symplectic. To upload data over 2GB please contact rdm@exeter.ac.uk

Recently Uploaded

Anisotropic diffusion of spherical particles in closely confining microchannels

Dettmer, SL; Pagliara, S; Misiunas, K; Keyser, UF (American Physical Society, 2014-06)

We present here the measurement of the diffusivity of spherical particles closely confined by narrow microchannels. Our experiments yield a two-dimensional map of the position-dependent diffusion coefficients parallel and ...

Local mechanical properties of electrospun fibers correlate to their internal nanostructure.

Camposeo, A; Greenfeld, I; Tantussi, F; Pagliara, S; Moffa, M; Fuso, F; Allegrini, M; Zussman, E; Pisignano, D (American Chemical Society, 2013-11-13)

The properties of polymeric nanofibers can be tailored and enhanced by properly managing the structure of the polymer molecules at the nanoscale. Although electrospun polymer fibers are increasingly exploited in many ...

EFL Teachers' Beliefs and Attitudes towards English Language Assessment in a Saudi University's English Language Institute

Mansory, Mazin (University of ExeterCollege of Social Sciences and International Studies, 2016-06-30)

State universities in Saudi Arabia have adopted a new educational policy, which made English the medium of instruction for all scientific departments. This has led to establishing a Foundation Year Programme (FYP) in the ...

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ORE Home / Community List

Communities in ORE

Select a community to browse its collections.

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- College of Life and Environmental Sciences
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- Create Community

Administrative

http://as.exeter.ac.uk/library/

Metadata required

☐	dc. description. provenance	Made available in DSpace on 2017-02-01T09:49:48Z (GMT). No. of bitstreams: 27 README: 1144 bytes, checksum:	en
☐	dc. identifier. citation	MNRAS, 466:1788-1804, April 2017	en_US
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☐	dc. subject	magnetic fields – MHD – methods: numerical – binaries: general – stars: formation	
☐	dc. title	The impact of non-ideal magnetohydrodynamics on binary star formation (Dataset)	en_US
☐	dc. type	Dataset	en_US

Open access

Accepted for publication?

Ensure your work meets REF and other funders' open access requirements.

Deposit
via Symplectic

+ Funder requirements

Researchers must be aware of their funder's requirements before submitting their work to a publisher.

All researchers must comply with the Higher Education Funding Council for England (HEFCE) policy as well as their individual funder requirements.

Compare funder requirements >

+ REF requirements

For your work to be eligible for the next REF you must deposit:

- In a repository (institutional, shared service or disciplinary).
- No later than three months after acceptance.
- Your final accepted version (following peer review).

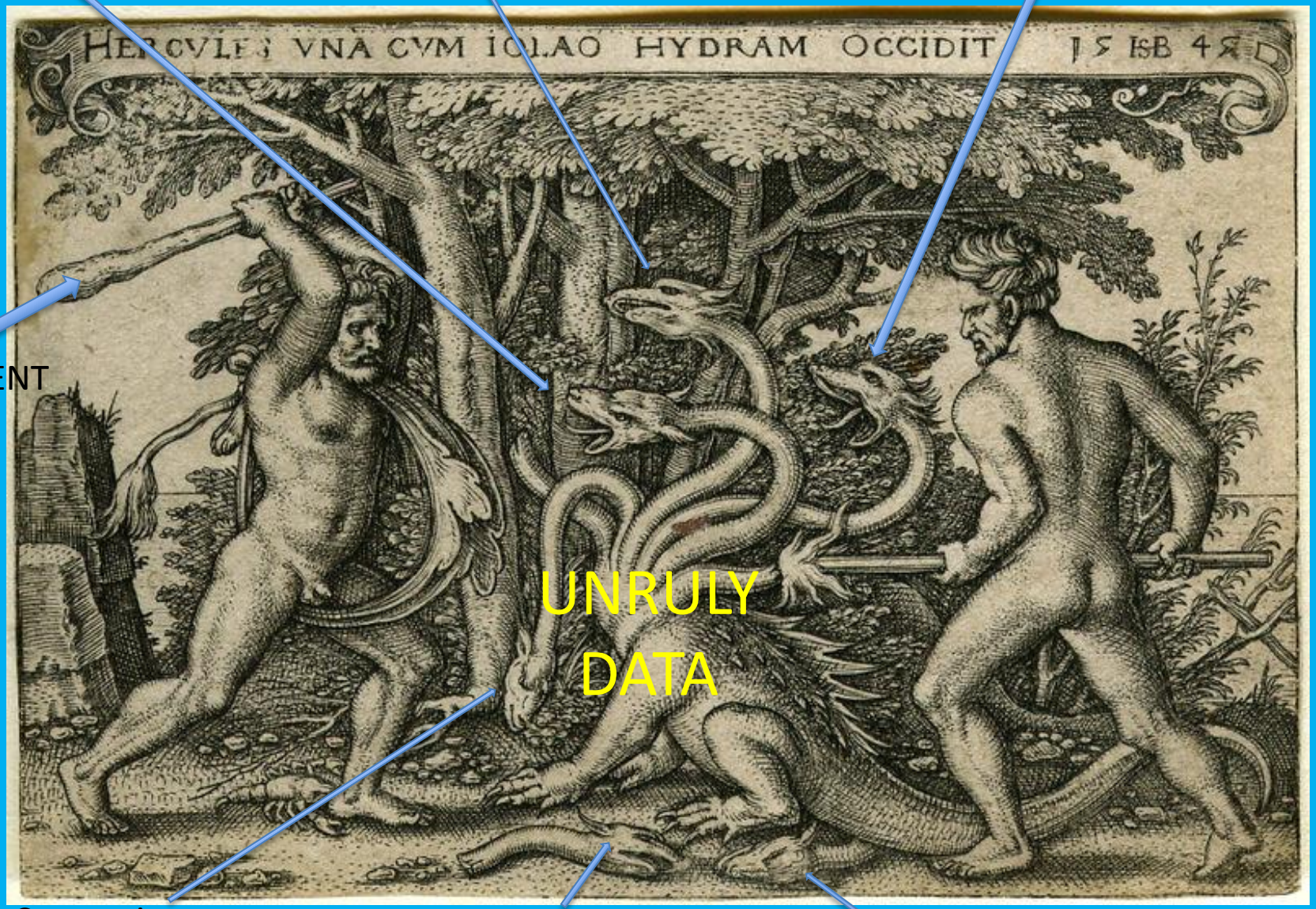
Find out more >

Researcher(s)

Research Support Office

Data Library / Repository / Archive

DATA MANAGEMENT PLAN



Computing Support

Faculty Ethics Committee

Etc...

Any Questions?

Contact us:

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