Meeting the RDM Challenge

Mark Hahnel
Matthew Addis
Gary Brewerton
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The EPSRC guidelines on research data states that by 1 May 2015: “The data from any research funded by the EPSRC must be made as widely and freely available in a timely and responsible manner. If it appears that proper sharing of research data is being obstructed EPSRC reserves the right to impose appropriate sanctions.”
1. Recommended open access to scholarly papers of publicly funded research
2. Recommended open access to all digital outputs of publicly funded research
3. Mandated open access to scholarly papers of publicly funded research
4. Mandated open access to all digital outputs of publicly funded research
5. Enforced, mandated open access to scholarly papers of publicly funded research
6. Enforced, mandated open access to all digital outputs of publicly funded research
1. **Recommended** open access to **scholarly papers** of publicly funded research
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5. **Enforced**, mandated open access to **scholarly papers** of publicly funded research
6. **Enforced**, mandated open access to all **digital outputs** of publicly funded research
4 Key Modules

1. **Research Data Management**
   Private, controlled storage and collaborative spaces for every academic at the institution.

2. **Public Digital Research Repository**
   A customisable public portal with all digital files made public at an institutional, departmental and group level.

3. **Administrative Workflow Portal**
   A portal where administrators can manage curation of files to be made public, storage space allocation and user rights.

4. **Reporting Dashboard**
   Impact and Usage Reporting.
Arkivum in 60 seconds

- **100% GUARANTEED**
  - SLA with 100% data integrity guaranteed

- **World-wide professional indemnity insurance**

- **Long term contracts for enterprise data archiving**

- **Fully automated and managed solution**

- **Audited and certified to ISO27001**

- **Data escrow, exit plan, no lock-in**
How to meet EPSRC Expectations for digital research data

**University definition of research data**

University Research Data Management policy applies to all research data that provide evidence to support or validate the observations, findings, or outputs from research conducted on University premises or using University facilities.

http://www.lboro.ac.uk/service/research/offcampus/docs/ResearchDataManagementPolicy-Draft.pdf

**EPSRC definition of research data**

“Research data is defined as recorded factual material commonly retained by and accepted in the scientific community as necessary to validate research findings; although the majority of such data is created in digital format, all research data is included irrespective of the format in which it is created.”

http://www.epsrc.ac.uk/about/standards/researchdata/scope/

The University provides safe long-term storage through Arkivum which meets EPSRC requirements. External repositories provide an alternative, but need careful evaluation to check their long-term sustainability and commitment to data.

The EPSRC default is for open access to data. There needs to be good IPR, commercial or privacy reasons not to follow this.

**Start**

Is the project funded by the EPSRC?

| YES | University policy on research data may still apply |
| NO | EPSRC policy also applies to data that is not digital or not easily digitised. |

Has digital research data been generated within the project?

| NO | An online description needs to be made available for the data, even if the data is not used in a publication, including how to access the data. The description is needed within 12 months of creating the data or before the end of the project. |
| YES | The supporting data needs to be available for others to access. A DOI for the data needs to be included in the publication. The data needs to be accessible at the time of publication. |

Will you publish results on or after 1 May 2015 based on this data?

| NO | The supporting data needs to be available for others to access. A DOI for the data needs to be included in the publication. The data needs to be accessible at the time of publication. |
| YES | Create a description of any access restrictions. Follow University policies on Ethics Approval, Intellectual Property, Data Protection, and Open Access. |

Is there a legitimate need to restrict access to the data?

| NO | Use Figshare/Elements to deposit the data, and include any access restrictions. For large datasets, discuss deposit options with the Research Data Manager. Figshare will create a DOI for your data. Use this DOI for the data in your publications. |
| YES | This will ensure you meet EPSRC expectations for publications, metadata and data, including controlled access, preservation and curation. |

Are there additional places you want to put or publish the data?

| YES | Put a link, or the data, into an external repository if appropriate. Update the record in Elements. Try re3data.org for some options. |

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**University policy on research data**

University policy on research data may still apply to all research data that provide evidence to support or validate the observations, findings, or outputs from research conducted on University premises or using University facilities.
Observations

• Research data begins and ends with Researchers
  – Creation, understanding, publication, reuse
• RDM needs clear benefits to these Researchers
  – Immediate and future rewards
  – Low costs: time and effort
• RDM complexity needs minimising for Researchers
  – One stop shop when using RDM infrastructure/services
  – Embed RDM practice into day-to-day working
  – Clear processes, automatic policy fulfillment
Loughborough’s RDM approach: Background

- **Key drivers**
  - Meet the “open data” mandate of research funders, in particular metadata discovery and archiving of datasets
  - Promote Loughborough research and attract future partners

- **Already had in place**
  - Institutional Repository (*DSpace*)
  - Publication system (*Symplectic Elements*)
Loughborough’s RDM approach: What we did

• Collaboration with *Arkivum* and *figshare* to develop an infrastructure to support our research data management
  
  • *Arkivum*: provider of large scale, long term, safe digital archiving
  
  • *figshare*: cloud-based service allowing researchers to upload and share datasets, media, papers, presentations, etc.
Loughborough’s RDM approach: How it will fit together
Loughborough’s RDM approach: What it looks like (1/2)

- **figshare** for Loughborough
  - New and popular items available on landing page
  - Search by keyword(s) from title, description, etc.
  - Items with embargoed files shown with countdown
  - Drag & drop citations
Loughborough’s RDM approach: What it looks like (2/2)

• **figshare** for Loughborough
  • Drag & drop files to include
  • Simple metadata form
  • Requires three clicks to publish
  • DOIs automatically generated when items published
  • All securely backed up by **Arkivum**
Loughborough’s RDM approach: Where are we?

• Soft launch of service
  • Advocacy campaign to inform researchers about what’s happening
  • Already held two workshops for researchers with others planned over the coming months
  • Initially operated as a mediated service by the Library
  • Gathering feedback from users to further develop the service
Loughborough’s RDM approach: What next?

- **Further development of figshare for institutions**
  - Collaborative spaces, linking of institutional and personal accounts, management reporting, institutional approval workflow

- **Integration with Symplectic Elements**
  - Allow deposit of datasets via Elements and harvesting of metadata in figshare
Loughborough’s RDM approach: 61 Thanks

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Hahnel • Daniel Hook • Becky Westbrook Project Management Board Jeff Brown • Sally Brown
Malcolm Cook • Fidelma Hannah • Bal Sandhu • Danielle Sharp • Richard Taylor • Dave Temple
Peter Townsend Project Working Group Katie Appleton • Izabelle Bimson • Gareth Cole • Angela
Crawford • Louise Denniff • Naomi Dungworth • Marcus Enoch • Gary Page • Bethan Whitelaw
Steering Committee John Feather • Elizabeth Gadd • Martin Hamilton • Julian Highfield • Matthew
Inglis • Melanie King • Susan Manuel • Adrienne Muir • Myra Nimmo • Zoe Stockdale • Ron
Summers • Jamie Timmons • Rob Wilby • Clare Wydell • Helen Young Others Stephen Ashurst
Hannah Baldwin • Jason Cooper • Jonathan Walters
THE END

Any questions?