Tutorial: Addressing Institutional Research Data Management
[University of Edinburgh Roadmap]

THE UNIVERSITY of EDINBURGH

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Timeline

- RDM policy passed the Senate following consultation with colleges in May, 2011.
- Information Services Plan, 2012-13: “Research data management & storage – policies, training, curation, preservation, baseline 0.5Tb/user…”
- RDM Roadmap drafted and approved, for an initial 18-month period August 2012-January 2014. Living document.
- Last week: capital funding approved for storage. Recurrent staffing needs being addressed.
RDM Roadmap governance

- Implementation Committee - membership from across Information Services (Library, Data Library, IT Infrastructure, User Services, DCC)
- Charged with delivering services that will meet policy objectives which can be achieved in the near term
- Reports to academic Steering Group which ensures services are ‘researcher-shaped’.
Data Management Planning

Active Data Infrastructure

Data Stewardship

Data Management Support
Data Management Planning

• Support and services for planning activities that are typically performed before research data is collected or created
  – Addresses policy points 3, 4
1. Tailored DMP assistance for PIs submitting research proposals
   - Analyse plans and collate a set of successful examples
   - Consultancy service for researchers wanting advice
2. Customise DMP Online for optimal UoE use
   - Evaluate DMP Online with Edinburgh researchers
   - Brand / customise DMP Online for Edinburgh
   - Develop custom guidance with Schools
Active Data Infrastructure

• Facilities to store data that are actively used in current research activities, to provide access to that storage, and tools to assist in working with the data
  – Addresses policy points 5, 8
Data infrastructure requirements

- Globally accessible cross platform file store with sufficient capacity to meet majority needs
- Support mobile devices and collaboration
- Mechanisms for backup and synchronisation
- Ensure integrity and long term retention of ‘golden copy’ of data
Data store recommendation: single site solution
Data Stewardship

• Tools and services to aid in the description, deposit, and on-going management of completed research data outputs
  – Addresses policy points 6, 7, 9, 10
Data stewardship services

- Data (dark) archive service - vault
- Data asset register
- Data repository (enhanced)
- PURE Current Research Information System (CRIS) integrated with other systems
"9. Research data of future historical interest, and all research data that represent records of the University, including data that substantiate research findings, will be offered and assessed for deposit and retention in an appropriate national or international data service or domain repository, or a University repository."
What is Edinburgh DataShare?

Edinburgh DataShare is an online digital repository of multi-disciplinary research datasets produced at the University of Edinburgh, hosted by the Data Library in Information Services.

Edinburgh University researchers who have produced research data associated with an existing or forthcoming publication, or which has potential use for other researchers, are invited to upload their dataset for sharing and safekeeping. A persistent identifier and suggested citation will be provided.

Deposit Your Data

- How to deposit

Research Communities in Edinburgh DataShare

Select a community to browse its collections.

- Business School
- Edinburgh College of Art
- Information Services (IS)
- Moray House School of Education
- Royal (Dick) School of Veterinary Studies
- School of Biological Sciences
- School of Biomedical Sciences
- School of Chemistry
- School of Clinical Sciences
- School of Divinity
Does Dspace work for data?

- Communities, collections, data items, files
- Metadata subset from DCMI “dcterm” vocabulary, RDF-compliant – aids discovery
- Persistent identifier (handle) assigned
- Suggested citation provided; viewable download statistics
- Single-sign on with EASE
- Embargo option – delayed publication
Challenges from Pilots

- Linguistics and English Language. School of Philosophy, Psychology, and Language Sciences. A Collection of Dinka Songs: http://hdl.handle.net/10283/155 Also digitised audio files.
- Roslin Institute – lots of ‘omics data
- Informatics (2) – big data, software, licences
- College of Art – high resolution output
- Clinical Psychology – postgraduate work and “sensitive” data
Planned development

- Better documentation and guidance
- Metadata enhancements
- Usability improvements for depositors
- Better use of faceted search & browse
- Curation tasks / preservation procedures
- SWORD / batch ingest
- Data visualisation / display
- User registration??
Data Management Support

• General consultancy and support service throughout the research process
  – Address policy points 1, 2, 4
Supporting and training researchers

- Online guidance for academic staff
- Embedding RDM training into postgraduate programmes (MANTRA)
- Training librarians & IT staff
- Awareness-raising and service roll-out across schools and research units
- Data management consultancy; grant-costed effort such as in-depth planning or metadata support; assisted deposit of large collections
Why do we need awareness raising?

• A common question: “Why has nobody told me about this before?”

• A common statement: “We need help with keeping up to date with the new tools/services that are continually appearing … I generally only hear about these by chance…”
It is important to identify and distinguish versions of research data files consistently. This ensures that a clear audit trail exists for tracking the development of a data file and identifying earlier versions when needed. Thus you will need to establish a method that makes sense to you that will indicate the version of your data files.

- A common form for expressing data file versions is to use ordinal numbers (1, 2, 3 etc.) for major version changes and the decimal for minor changes e.g. v1, v1.1, v2.6
- Beware of using confusing labels: revision, final, final2, definitive_copy as you may find that these accumulate
- Record every change irrespective of how minor that change may be
URLs

- Research data guidance
  - http://www.ed.ac.uk/is/data-management
- MANTRA online training
  - http://datalib.edina.ac.uk/mantra/
- Edinburgh DataShare
  - http://datashare.is.ed.ac.uk/
- Research Data MANTRA & DIY Training Kit for Librarians:
  - http://datalib.edina.ac.uk/mantra
- Edinburgh Data Blog: http://datablog.is.ed.ac.uk