Taking Care of the University’s Research Data

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Taking Care of the University’s Research Data

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Taking Care of the University’s Research Data

Research data – the opportunity

• To manage the University of Edinburgh’s research data better for present and future researchers, scholars, students & the wider public

Our mission
The mission of our University is the creation, dissemination and curation of knowledge.
Taking Care of the University’s Research Data

10Tb data video, audio, text, images a unique dataset, not repeatable
Where do I safely keep my data from my fieldwork, as I travel home?

How do we ensure we have access to our research data after some of the team have left?

How can our research collaborations share data, and make them available once complete?

How can I best keep years worth of research data secure and accessible for when I and others need to re-use it?

How do we ensure compliance to funders’ requirement for several years of open access to data?

LEVEL
IDCC11, Bristol - Dec 2011
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Internal pressure from researchers

External pressure from funders etc

Res comp strategy

RDM WG

RDM Policy

RDM Implementation Plan

RDS WG

RDS Implementation Plan

Research Data Services

IDCC11, Bristol - Dec 2011
High level statements from University’s Research Computing Strategy (AY2007-8) contains an ‘embryonic Research Data Policy’

- Researchers will have access to world-class data services which will include storage, backup, sharing and access facilities to enable re-use, curation, and archive of data that they obtain through experimentation, observation and simulation or that is purchased or procured for use in research. It will be possible share data with groups both within and beyond the University.

- Researchers will have the skills and knowledge to make best use of the computational facilities available to them. Training will be available in order to ensure this is the case.

- **Flexible and timely support will be available for all researchers to help them to make the most of these services.**

- Research facilities will be available to collaborators from different institutions and to independent visiting scholars and will support mobile researchers.

http://www.docs.is.ed.ac.uk/docs/vpo/ResearchStrategy_May08_public2.pdf
It shall be the University's policy that:

- Research data should be managed to the highest standards throughout the research data lifecycle as part of the University's commitment to research excellence.

- **The University should provide** training, support and advice, as well as mechanisms and services for storage, backup, registration, deposit and retention of research data assets in support of current and future access, during and after completion of research projects.

- **Responsibility** for research data management through a sound research data management plan during any research project or programme lies primarily with PIs.

- All new research proposals must include research data management plans or protocols that explicitly address data capture, management, integrity, confidentiality, retention, sharing and publication.

- Research data management plans must ensure that research data are available for access and re-use, where appropriate and under appropriate safeguards.

- The legitimate interests of the subjects of research data must be protected.

- Research data of future historical interest, and all research data that represent records of the University, including data that substantiate research findings, should be offered and assessed for deposit and retention in an appropriate national or international data service or domain repository, or a University repository. Such research data deposited elsewhere should be registered with the University.
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Some of the elements of our RDM Implementation Plan

**Pre-award**: self-help for preparation of RDM plans on website, using DCC DMP Online

**Data management throughout the project**: guidance on storing & managing data, incl compliance and built-in curation, to ensure good practice from the outset

**Metadata service**: advisory service on creating metadata

**Data storage throughout the project**: provision of information about Edinburgh research data storage services

**Archiving data**: services to help researchers decide how to archive data at end of project or other appropriate point

**Making research data visible**: information about how to make research data available to defined audiences
Research Data MANTRA

Overview

The project is a partnership between Information Services, the Institute of Academic Development, and three Graduate programmes at the University of Edinburgh. Online learning materials in research data management will be created which are grounded in the best practice of the respective disciplines, provide examples based on video interviews of senior researchers, and provide interactive components for postgraduate students, including data handling exercises in four software analysis packages. The resulting materials will be ported into a University VLE for use by all postgraduate and early career researchers and deposited with an open license in JorumOpen.

Aims and Objectives

The aim of the project is to develop a structured programme of online resources that can be customised and repurposed for use in different disciplines as well as an on-demand resource open to all University postgraduate students and early career researchers.

Summary objectives:

Develop a set of engaging web-based chapters

1) Create professionally produced short video narratives about data management as practiced by academics in the field
2) Develop a set of software-specific data handling exercises – in SPSS, NVivo, ArcGIS, R
3) Port the produced materials to the WebCT courses and deposit open standard files into JorumOpen.

Project Methodology

The project manager will ensure timely delivery of the course, act as liaison to stakeholders and maintain the project website. She will commission the software modules, identify the video interviewees and arrange for the video podcasts to be conducted. The editor/writer will help the project manager to conduct the needs assessment with the participating schools, design the course, gather and evaluate external resources, and then will write/re-purpose the content along with the second writer. She will work with students in the three target schools on user testing. She will then work to the remaining modules to design the course and deposit into JorumOpen.

Anticipated Outputs and Outcomes

1) Online learning materials in research data management will be created which are grounded in the best practice of the respective disciplines.
2) Examples based on video interviews of senior researchers.
3) Interactive components for postgraduate students, including data handling exercises in four software analysis packages (SPSS, NVivo, ArcGIS, R).
4) A Creative Commons license will allow re-use and re-purposing with attribution, and be made portable in open standard formats and deposited in JorumOpen.
Introduction

About the module

This is a non-credit, free module which provides guidelines for good practice in responsible conduct of research. Learners will become aware of the issues related to data management and work through data handling exercises and relevant scenarios.

The module is particularly appropriate for postgraduate students and research active staff who work with data and would like to learn more about managing their research data.

The module content is mainly geared for three disciplines: geosciences, social and political sciences and clinical psychology. However, many of the issues covered apply equally to all research disciplines.
Welcome to DMP Online

Funding bodies increasingly require their grant-holders to produce and maintain Data Management Plans (DMPs), both at the bid-preparation stage and after funding has been secured.

DMP Online has been developed by the Digital Curation Centre to enable you to build and edit DMPs according to the requirements stipulated by the major UK funders.

The tool also contains helpful guidance and links for researchers and other data professionals.

To get started, click on 'Create account' or 'Log in' above, or alternatively have a look at the About DMP Online page or the Instructions for use, then get going by clicking 'Start a new plan', below.

If you already have plans stored in the system, click My home or Return to a saved plan to see them in a list.

- Start a new plan
- Return to a saved plan
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Research Data Services
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**Emerging RDS Strategy & Plan** (Recommendations from RDS WG)

1. Archiving of research data \([= repository+?]\)
2. Accessibility of research data to all virtual collaborators, facilitating extra-institutional collaboration
3. Globally accessible cross-platform file store
4. Backup/synchronisation of data on mobile devices
5. Federated structure for local data storage
6. Establishing networks of knowledge

**Plus**

1. Baseline 0.5TB for all; automated transfer to right ‘latency layer’; beyond-Edinburgh cloud as part of solution;
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Challenges ahead:

• Funding, funding, funding – sustainable models
• Integration with current domain-specific practices
• Support staff skills for new area of work
• Encouraging, bribing & cajoling engagement from key researchers & groups
• Staying abreast of national developments / maintaining agility whilst waiting...