Recommendation report for the implementation of research data management policy and for a sustainable research data management service at the University of Exeter

Open Access and Research Data Management Policy Task and Finish Group

February 2013

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Executive Summary

The Open Access and Research Data Management Policy Task and Finish Group (henceforth known as "the Group") which was set up as part of the JISC-funded Open Exeter project, was tasked with putting forward recommendations for a sustainable research data management service within the University of Exeter.

The Group's principal recommendations are as follows:

1. Updating and Ownership of Institutional Policies

1.1 **Ownership:** The Research and Knowledge Transfer Strategy Executive Board is responsible for the Open Access Research and Research Data Management Policy. The Board of the Faculty of Graduate Research is responsible for the Open Access Research and Research Data Management Policy for PGR students.

1.2 **Updating:** Open access (OA) and research data management (RDM) should be a regular item on the agenda every 6 months at the Research and Knowledge Transfer Management Group meeting.

2. Policy Implementation

2.1 **Implementation dates:** The recommended implementation dates for the University's policies are as follows:
1 April 2013: All PGRs who are RCUK funded must comply with the policy with regards to research papers. All researchers must comply with the policy with regards to research papers.
1 October 2013: All PGRs must comply with the policy with regards to research papers and research data. All researchers must comply with the policy with regards to research papers and research data.

2.2 **Compliance:** Compliance with the University's policies should focus initially on research which is regulated by the policies of external funders. All researchers and PGRs will be encouraged to comply with the policies.

3. Sustainable Training and Guidance

3.1 **Sustainable service:** A sustainable RDM training and guidance service is important in order to increase good practice in RDM across the University's research community.

3.2 **Ownership:** The Library should be responsible for overseeing research data training and guidance services.

3.3 **Level of service:** The level of RDM service will depend on the number and role of posts with responsibility for RDM.

4. Roles and Responsibilities

4.1 **The roles and responsibilities** of the University, Colleges, Departments, PIs, PGRs and PGR supervisors with regards to RDM should be clearly established and communicated.

5. Review of Recommendations

5.1 **Review of Recommendations:** A skeleton group should meet in October 2013 to check this report's recommendations against changes that may occur in the next few months.

Background

The Open Access and Research Data Management Policy Task and Finish Group was set up as part of the JISC-funded Open Exeter project which ran from October 2011 and will end in March 2013. The project's aims are to embed sustainable RDM training and guidance for researchers at the University, ensure that an RDM policy is adopted by the University and develop the University's repository for completed data sets.

The Group first met on March 26th 2012 and its objectives were:

1. To develop and oversee ratification of an institutional policy on RDM and OA.
2. To act as a link between the Open Exeter project and Colleges/Departments.
3. To advocate good practice in RDM and OA in Colleges/Departments.
4. To recommend how institutional policy can be tailored for more specific disciplines/research groups and ensure that discipline-specific factors are brought to the table.
5. To help set up College and Academic Services-level procedures that provide for the implementation of institutional policy.
6. To analyse and update existing University of Exeter policies to reflect best practice in RDM and OA.
7. To ensure responsibilities for review and updating of policy are clear and extend beyond the life of the Task and Finish Group.

Over a period of ten months, the Group has partly or fully met these objectives. Two institutional policies have been developed and the PGR policy has been approved, although the researcher policy is to go before Senate on March 21st 2013 and could undergo further changes (objective 1). The reasons for this will be explored in more detail later on in this section. The members of the Group have acted as a link between the project and Colleges, Departments and Services and have advocated for good practice in RDM and OA within their home Department, College or Service (objectives 2 and 3). With regards to objective 4 the Group has brought discipline-specific factors to the table during the lifetime of the Group, in particular during the policy consultation. However, specific discipline or research group-level adaptations of the policy have not been developed by the Group. The Open Exeter team, has, however helped developed guidelines and policies with two research groups – the Marine Renewable Energy Group and the Centre for Cognitive Control and Associative Learning. Objective 5 is in part met by this document, but procedures cannot be set-up until methods of upload to the repository are finalised and tested and permanent staffing is confirmed. The Group did analyse other institutional policies which involve research data management and associated issues, but these have not yet been updated (objective 6). Objective 7 is met by this document.

The deliverables of the Group include a draft institutional policy on RDM and OA for researchers, an approved institutional policy on RDM and OA for PGRs, policy support notes

and this recommendation report which puts forward the Group's suggestions for a sustainable RDM service within the University as well as suggestions for policy implementation and revision and for the roles of different stakeholders in this service.

During the period in which the Group met, there were significant changes in the wider open access environment, most of which were around OA to research papers, following the publication of the Finch report on June 18 2012, rather than directly affecting research data. The announcement of a new RCUK policy on research papers which will be implemented from 1 April 2013 and the need to decide upon the University's approach to Green and Gold OA as well as the method of distributing RCUK funds destined for Gold OA fairly across the University has meant that the approval of the University's policy for researchers on OA to research papers has been delayed. The policy will go before Senate in March 2013.

The Group felt that from the perspective of the University of Exeter researcher it would be clearer to include both RDM and OA to both research data and research papers in the same policy document. In terms of policy style, the Group decided to follow other UK universities' lead (for example, the University of Edinburgh, the University of Leeds) in developing a high level set of principles, as well as policy support notes which can be updated more quickly when the need arises, without the need for high-level approval. Although the policy documents include OA to research papers, the Group was not responsible for proposing and developing procedures for the implementation of this aspect of the policy. Therefore, although this recommendation report does touch on OA to research papers, it is not the main focus of the report.

Initially, the Group focused on developing policy for researchers employed by the University. However, the results of the Open Exeter team's adaptation of the Data Asset Framework survey and interviews showed that the management of PGR research data was an issue, in particular for research students who work as part of a wider research group. Therefore, PGR students' data was incorporated into the draft policy document and then, for reasons of clarity, a separate policy document was developed which is specific to PGR students.

The EPSRC's research data expectations for institutions receiving EPSRC funding was a key document which influenced the Group's policy development, as it gives responsibility to the University for developing a roadmap for compliance with their expectations by 1 May 2012, in order for the University to meet these expectations by 1 May 2015. The roadmap was developed by the Library and RKT and the live document has been published.

One of the expectations of the EPSRC is that research organisations will securely preserve EPSRC-funded research data for a minimum of 10 years – if third parties have accessed this data this would be a rolling 10 year period from the date of last access. The technical strand of the Open Exeter project is developing a repository for the secure preservation of research data, such as that specified by the EPSRC. However, this repository will not be fully ready for roll-out by the end of March 2013. This means that the

Group has not been able to give feedback on specific procedures related to the upload of research data.

It is important to note the context in which the University policies have been developed. Amongst researchers there are varied views about OA to both research papers and research data. The new expectations of openness by funders have been met with a certain level of apprehension on the part of some researchers. This is due to a number of reasons, for example, fears about the cost of publishing research papers in high impact journals via the Gold OA route; the amount of time that a researcher will need to dedicate to research data management, for example, to document a data set so that it can be reused in the future and the need to be able to protect confidentiality and/or commercial interests where necessary. However, in some disciplines, for example, astrophysics, the idea and practice of open research is not new and therefore the new policies are generally embraced as a ratification of what is normal research practice for researchers in these areas.

It is with these feelings of apprehension in mind that the Group believes that the role of the University is to provide guidance, training and support to assist researchers in complying with the changes in funder and University policies.

Recommendations

The Group's recommendations are as follows:

1. Updating and Ownership of Institutional Policies

The Group recommends that the both the Open Access Research and Research Data Management Policy and the Open Access Research and Research Data Management Policy for PGR students are revised twice annually and updated if so required.

Both researchers and PGR students face similar issues with regards to open access and research data management and changes in funder policy generally affect both researchers and PGRs. Therefore, although the policies are owned by different groups (the responsibility for updating the Open Access Research and Research Data Management Policy lies with the Research and Knowledge Transfer Strategy Executive Board and for the Open Access Research and Research Data Management Policy for PGR students the responsibility lies with the Board of the Faculty of Graduate Research), it makes sense for the revision of both policies to take place at the same time by the same group of people.

The Group recommends that OA and RDM are put forward as a regular 6-month standing agenda item in the Research and Knowledge Transfer Management Group (RKTMG) meeting. Relevant experts would be invited to these meetings for this agenda item, for example, experts in open access, Legal Services, and Records Management and the Guild PGR representative. If the changes proposed were to have substantial impact on the academic community, it would also be important to conduct a widespread consultation in order to engage and include the wider academic community in the decision making process, as has been done during the development of the first version of these policies. It is important to note that the policies should not be looked at as stand-alone documents, but in conjunction with other University policies such as the [Code of Good Practice in the Conduct of Research](), the [Data Protection Policy](), the [Information Security Policy](), the [Ethics Policy](), the [Intellectual Property Policy]() etc. The Associate Deans for Research and Knowledge Transfer (ADRs) who participate in the RKTMG meeting would be tasked with dissemination in each College and with ensuring that a consultative process takes place if this is considered appropriate.

OA to research papers and research data are closely related; however it may be simpler in the future to separate future versions of these policies into OA to research papers (and theses in the case of PGR students) and research data management (including OA to research data). However, the value of this distinction will depend on future developments in these areas. For example, if research data (even if it is "raw" or unanalysed data) is increasingly considered a research output by funders it may make more sense to continue to couple these topics together. Good practice in RDM is part of a good researcher's skill set,

regardless of whether research data can be made available on OA or not, whereas the skills and knowledge needed to make research papers available on OA are not so complex and not so integrated with research practice.

2. Policy Implementation

The Open Access Research and Research Data Management Policy has been approved by the Research and Knowledge Transfer Management Group, with respect to the RDM aspects of the policy. The Open Access Research and Research Data Management Policy for PGR students has been approved by the Board of the Faculty of Graduate Research. The implementation dates for the PGR policy are as follows:

1 April 2013: All PGRs who are RCUK funded must comply with the policy with regards to research papers.
1 October 2013: All PGRs must comply with the policy with regards to research papers and research data.

The suggested implementation dates for the researcher policy are as follows (the elements of the policy which relate to OA to research papers will go to Senate for review in March 2013):

1 April 2013: All researchers must comply with the policy with regards to research papers.
1 October 2013: All researchers must comply with the policy with regards to research papers and research data.

It is as yet unclear how compliance with the RCUK policy on research papers will be measured and how researchers, PGRs and institutions will be penalised should they not comply with the policy. It is hoped that this will be clarified in the updated version of the policy guidance, which is expected to be published at the end of February 2013. The Wellcome Trust states that failure to comply with their OA policy could result in final grant payments being withheld and non-compliant publications being discounted when applying for further funding. RCUK could take a similar stance towards non-compliance with their policy.

Statements about the monitoring of the data management and data sharing expectations of the Research Councils are more varied, although the majority of funders note that they will monitor compliance with their policies, typically via the final report process. The RCUK Common Principles on Data Policy does not mention the issue of compliance. With regards to compliance with its research data expectations, the EPSRC maintains that it will monitor progress and compliance on a case by case basis. Non-compliance will be investigated and if proper sharing of research data is being obstructed, the EPSRC will impose appropriate sanctions. However, these sanctions are not described explicitly. Both the ESRC and the NERC state that they could withhold grant payments if data are not properly managed and offered for deposit and the BBSRC's line is that non-compliance may be taken into account when assessing future proposals. A new statement from the RCUK on research data is expected to be released in 2013.

The Group believes that the way the University's policies are implemented and monitored should be in line with the speed of cultural change around OA and RDM issues amongst the research community, both at Exeter, as well as nationally and internationally. It seems probable that changes in culture around making research papers available on OA will be quicker than changes in research practice around research data, as funders' policies are tighter in this area. The Group recommends that the University's policies are implemented softly initially; by focusing on research which is regulated by the policies of external funders to begin with and by encouraging compliance with the policies by all researchers and PGRs. This approach can be assessed regularly at RKTMG meetings.

i.   Local Level Guidelines

The Group recognises the importance of involving staff at a local level (e.g. at research group or research project level) in RDM as agreed data management standards vary by discipline area and the specifics of the research. This implies that advice, guidance and training should be on hand for these members of staff (whether they be research support staff, PGR students, early career researchers or more experienced researchers, PIs or DoRs) – see section 3, Sustainable Training and Guidance. Indeed, the Group advises that roles of responsibility are clearly defined at this level – see section 4, Roles and Responsibilities. The Open Exeter team has helped to develop guidelines for the Marine Renewable Energy Group and the Centre for Cognitive Control and Associative Learning and it is envisaged that this type of document development and the discussion by members of the research group or research project that goes along with it will raise the level of good practice in research data management and awareness of research data management issues across the University.

ii.   Data Management Plans

Directors of Research should be able to offer guidance on the content of data management plans as part of the review process of applications for research funding. More in-depth guidance on data management plans can be obtained from the Open Access and Data Curation team. The Group also recommends that Ethics Officers should be able to advise researchers about the ethical/legal implications of placing their research data on OA. Training needs to be provided to both Directors of Research and Ethics Officer to enable them to offer advice to other researchers on these topics (see section 3, Sustainable Training and Guidance).

iii.   PGR Policy Implementation

It may be easier to monitor compliance with the PGR policy than the researcher policy as there are specific points in the PGR administration cycle where it is possible to make checks and to give guidance to PGR students.

Supervisor review

The PGR policy specifies that PGR students and their supervisors should hold an annual review of the research data that the student is collecting or creating and any issues that he or she is facing with regards to research data management. This checkpoint is an ideal point where the supervisor can point the PGR to available training (for example on the [Researcher Development Programme](#)) or where the student can get further online advice on RDM. It will also mean that the student is made aware of the University's requirement that research data be made available on open access when appropriate from an early stage in their research. A draft [Annual Research Data Management Checklist for PGR Supervisors and Students](#) is available as a tool for the annual review, and a second checklist will be developed for the sign-off of research data at the end of the degree.

Depositing and registering data

The check on the deposit or registration of PGR student data will take place at the point when the student submits their thesis. The exact process of checking compliance and depositing/registering data is being developed in conjunction with the PGR Administration Office and will also depend on the final technical solution for data deposit.

3. Sustainable Training and Guidance

The Group recognises that developing a sustainable research data management training and guidance service is of high importance if the University wishes to encourage researchers to practise a high standard of research data management.

The Group recommends that responsibility for overseeing research data training and guidance should sit with the Library. Unfortunately, as proposals for new posts which would have responsibility for OA and RDM from August 2013 are currently being considered for approval, it is difficult to be more specific about the exact post in which this responsibility would lie. The Library will work in conjunction with Staff Learning and Development, Academic Development and Researcher Development to develop appropriate training programmes for academic staff, PGRs and professional services staff as well as establishing training programmes independently from these departments should these be required.

The training and guidance services that are currently being offered or are proposed are shown below. Although some of the training courses are shown to be currently available, this does not mean that they are guaranteed to be programmed in the academic year 2013-2014. It should also be noted that some training is defined as not currently available because it is not officially programmed at this point in time; however in most cases, these courses have been developed and are ready to be adapted for roll-out.

i.   Training

Audience	Title	Programme/Provider	Currently available?
DoRs/Peer Reviewers	Understanding Data Management Plans (DMPs)	Staff Learning and Development	No
All researchers	Writing a DMP	Staff Learning and Development	No
New Doctoral Supervisors	An Introduction to RDM	Doctoral Supervision Course	Yes
Ethics Officers	Open Access and Research Data	Library	No
PGR Directors	An Introduction to RDM	Library	No
All researchers	Discipline-specific training sessions	Library	For some disciplines
Lecturers (Education and Research)	An Introduction to RDM	PCAP	Yes
All researchers	RDM workshop	ASPIRE Academic Practice Workshops	Yes
PGRs	Series of 7 workshops	Researcher Development Programme	Yes
PGRs	An Introduction to RDM	College PGR induction sessions	Yes
PGRs	Discipline-specific training sessions	Library	For some disciplines
CDOs, Research Support Staff	An Introduction to RDM	Library	No
Subject Librarians	Holistic Librarian/23 Things	Library	Pilot
PGR Support Staff	An Introduction to RDM	Library	No

ii. Guidance Services

a. DMP Advisory Service

Face-to-face, telephone or via email service for researchers for advice on content of data management plans.

b. Ad-hoc Advisory Service

Face-to-face, telephone or via email service for researchers for general and specific data management advice.

c. Online Guidance

A research data management website which is integrated into the University's [Research Toolkit](#).

If the proposals for new posts in the area of research data management are not successful, the number and type of training sessions and guidance services would need to be reduced. Sustainability issues should be flagged at the Research and Knowledge Transfer Management Group (RKTMG).

4. Roles and Responsibilities

The development of an integrated RDM service is part of ongoing work by the Library, RKT and Exeter IT to increase research support in line with University strategy. The Group recommends that the roles and responsibilities of the University, Colleges, Departments, PIs, PGRs and PGR supervisors with regards to research data management should be clearly established and communicated.

i. Training and Guidance

As indicated in section 3, the Library should be responsible for the training and guidance elements of the RDM service.

Library: The Library is responsible for overseeing research data training and guidance.

However, specialist guidance on RDM issues will also be provided from the following central University departments:

Research and Knowledge Transfer (RKT): RKT is responsible for providing advice to researchers on contractual, Intellectual Property and commercial matters.

Legal Services: Legal Services is responsible for advising researchers on contractual legal queries.

IT Governance and Compliance: IT Governance and Compliance are responsible for providing guidance on the Data Protection Act, the Freedom of Information Act and other data security training.

ii. College and Discipline-level Guidance

More specific guidance for researchers and PGR students should also be available via Colleges and discipline-level staff.

Research Managers: Research Managers should be able to advise researchers on local RDM issues.

Computer Development Officers: Computer Development Officers should be able to advise researchers on local RDM issues.

Directors of Research: Directors of Research should be able to offer guidance on the data management standards expected in their discipline and assess data management plans.

Ethics Officers: Ethics Officers should be able to advise researchers about the ethical/legal implications of placing their research data on OA.

PGR Supervisors: The Main PGR Supervisor is responsible for advising the PGR student on good practice in research data management.

iii. Research Storage Service

Exeter IT should be responsible for the development, provision and maintenance of a backed-up storage service for completed digital research data and for open access research papers.
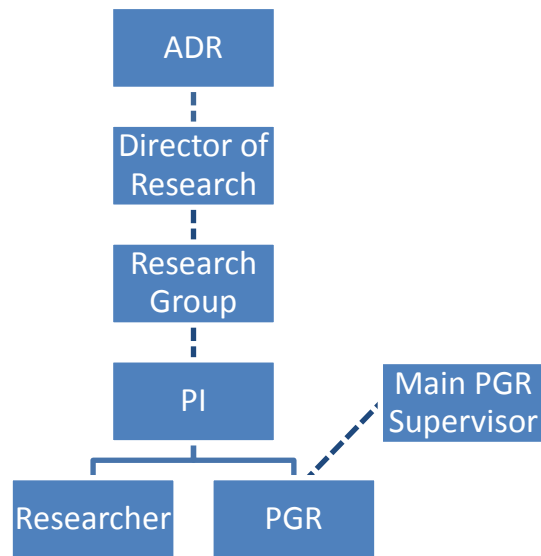
iv. Researchers and PGRs

Staff on research projects: Responsibility for RDM during research projects lies jointly with Principal Investigators (PIs) and researcher(s). If the Principal Investigator of a project is not based at the University of Exeter, the researcher at the University of Exeter is responsible for ensuring good practice in research data management for the data that they create or collect.

PGRs: For PGRs, responsibility for RDM lies with the PGR student, and if relevant, jointly with the Principal Investigator (PI) of the research project.

Responsibility for research data management includes responsibility for tasks such as the writing of the data management plan as the research proposal is developed, ensuring that the plan is followed, revised and adapted as appropriate throughout the project and making research data and associated contextual information available for deposit at the end of the project if it is suitable to be published on open access.

Figure 1 shows the lines of responsibility within a research project; the PI, researchers and PGRs on a project are responsible for good practice in RDM for the data they create or collect. The Main PGR supervisor should also provide guidance in the case of the PGR student. The project staff should also follow the RDM guidelines and expectations provided by the research group, the Director of Research and the ADR.

Figure 1: The lines of RDM responsibility for research project researchers and PGR students

v. Compliance and Monitoring

The Research and Knowledge Transfer Strategy Executive Board should be responsible for reviewing how compliance with the Open Access Research and Research Data Management Policy for researchers should be monitored.

The Board of the Faculty of Graduate Research should be responsible for reviewing how compliance with the Open Access Research and Research Data Management Policy for PGR students should be monitored.

5. Review of Recommendations

In light of the reality of not knowing the level of human resource available to maintain the proposed research data management service and the unpredictable movement of external policies on OA and RDM, the Group recommends that a skeleton group should meet in October 2013 to check this report's recommendations against further changes that may arise in the next few months. This group could be formed of one person from each of the following areas, which have responsibility for training and guidance as outlined in section 4.i.: Library, RKT, Legal Services and IT Governance and Compliance

Appendix 1: Members of the Open Access and Research Data Management Policy Task and Finish Group

The members of the Open Access and Research Data Management Policy Task and Finish Group are:

Cris Burgess - Ethics Officer, Psychology, CLES

Caroline Dominey - University Records Manager, Governance and Compliance, Exeter IT

Jill Evans - Open Access and Data Curation Manager and Open Exeter Project Manager, Academic Engagement, Library & Research Support

Hannah Haig - IP and Contracts Officer, Legal Services and RKT

Simon Honeyball – Associate Professor, Law, SSIS and Academic Staff Association Member

Jamie Horsley – Assistant College Manager – Cornwall, CEMPS

Hannah Lloyd-Jones - Advocacy and Governance Officer, Open Exeter, Academic Engagement, Library & Research Support

Mairi Maclean – Director of Research, Organisation Studies, The Business School

Noel Morgan - Director of Research, Institute of Biomedical & Clinical Sciences, UEMS

Anthony Musson – Director of Research, Law, SSIS

Christopher Smith – Director of Research, Engineering, CEMPS

Lee Snook - Head of Academic Engagement, Library & Research Support

Tom Tregenza - Director of Research, Biosciences, CLES

Catherine Turner – Director of Research, Drama, Humanities

Nela Vlaisavljevic-Kapelan - Research Development Manager – HASS Lead, RKT

Michael Wykes - Policy, Impact, and Performance Manager, RKT (Chair)