University of Glasgow

The University of Glasgow is a broad-based research-intensive university with research spread across four colleges: Science and Engineering; Medical, Veterinary and Life Sciences; Arts; Social Sciences and based at multiple campuses.

The University first engaged with Research Data Management (RDM) as part of the Incremental Project [1] (2010-2012), in partnership with the University of Cambridge and the Digital Curation Centre.

Institutional requirements for Research Data Management

The work done during the Incremental project culminated in the University of Glasgow developing a draft Research Data policy in 2012, and building a research data registry. The policy was more aspirational than practical at that time, but was an early indicator of the importance placed on good data management by the University. The policy was reviewed and formally approved in 2015, at which point the three University policies which covered the management and sharing of research data (The Code of Good Practice in Research [2], The Postgraduate Research Code of Practice [3] and the Good Management of Research Data policy [4]) were harmonised. These policies require

- good management of research data
- retention of data of long-term significance (defined for the purposes of the policies as that data underpinning publications, theses and funding applications) for at least 10 years post-project
- sharing of research data via a suitable repository whenever possible
- observance of any relevant funder or professional society requirements

Together, these policies apply to anyone conducting research at the University, both staff and students.

In addition to the policy requirements outlined above, most PGR students starting to study in 2018 will also have to create a data management plan for their projects, as part of the review process when progressing from first to second year. It is anticipated that this requirement will raise awareness of the need for good research data management with both the students and their supervisors, but also serve to equip these researchers of the future with another of the skills needed to administer a successful research project.

The Research Data Management Service

The Research Data Management service [5] was set up in 2012, with some funding from the Cerif for datasets (C4D) project [11]. At this point the service had the resources developed during the Incremental Project, and could provide some advice and support, but did not have staff resource to do this at a significant daily level. In 2014, the service was expanded with the addition of three dedicated RDM staff. A significant driver for the expansion of the service was the need to meet the EPSRC expectations for research data [6].

The service now offers a range of services and support. These are available to anyone undertaking research at the University – generally these groups would be research staff and post-graduate research (PGR) students, but should an undergraduate student or post-graduate student on a taught course (PGT) require RDM help or support, they would also have access to the service.

RDM services

Data Management Planning

- review of data management plans
- advice on costing long-term data storage

Training

- **formal training courses 'Managing your research data' and 'Writing and evaluating data management plans'** - available to both staff and students
- online training courses **–** this is a new addition this year to supplement the in-person training and improve access for researchers based off-campus
- bespoke training **–** offered to individuals and groups of researchers (staff and students) who request more training on a specific topic

Enquiry service & webpages

- general support and information about all aspects of research data management
- links to internal sources of expertise and support
- links to external sources of guidance and support

Institutional Data Repository **–** Enlighten: Research Data

- data repository and registry built on the ePrints (Southampton) platform
- links from repository to other systems to increase visibility of datasets and improve data deposit workflow
- long-term archival data storage currently outsourced to Arkivum
- DOI coining service under licence to the British Library

Service sustainability

The expanded service started with 3 staff posts, funded from a University of Glasgow three-year project budget (2014-2017). The three posts were intended to focus on the technical, training and service coordination aspects of the service remit.

In mid-2017, the staff posts were made permanent, funded from the library staff budget. When the staff posts were made permanent, the Research Data Management Service became part of the larger Research Information Management team, and wider roles were assigned to the service staff. These roles include administering open access for research publications, administering research output reporting to funders and digital preservation.

Today, the Research Data Management Service has approximately 3.2 FTE of staff resource, distributed between seven members of staff in the Research Information Management team. Five of these staff posts are paid for from the Library staff budget (a Research Information Manager, 3 Research Information Officers and a Research Information Assistant) and an additional two part-time (temporary) posts are funded from grant and project funding.

Storage for the institutional repository, Enlighten: Research Data [7] was bought from Arkivum, initially as a defined block of storage for a period of 10 years. This storage was purchased in 2015 under the Jisc-negotiated national agreement, using funds from the initial project funding. This block has not yet been exhausted, so two years after the purchase was made, we renegotiated our original purchase to extend the storage period for the unused space.

The service does not yet have a fully-developed business model to recover the cost of future data storage, but is working on this with help from the Head of Research Support in the finance directorate and research Project Coordinators. Glasgow hopes to have a practical solution, which will allow the recovery of long-term storage costs from research grants (before the grant ends), in place soon.

Costing research data management activities

Long-term archival storage

The University of Glasgow has looked at how research data management activities are costed into funding applications. The service provides costing advice to support applications for projects where it is anticipated that a large dataset will be deposited in the institutional data repository. The RDM service cannot access information on the costings in successful applications, but they're aware of at least two EPSRC awards and one MRC award which included costings for long-term data storage. The first time this was included in a funding application by a Glasgow researcher, the process was not particularly smooth, see the box below for details.

Transcription costs

The RDM service suspect that transcription costs are regularly included in funding applications, especially in the arts and social sciences. However, the RDM service believes that researchers don't recognise transcription costs as being related to research data management. Without greater involvement in these types of applications, it is difficult to know this for sure, or to collect examples of how these costs are justified.

Other costs

The RDM team at Glasgow believe, on the basis of their conversations with funders, that other RDM activities such as time to prepare data for deposit in a repository should be relatively straightforward to justify in a funding application. The larger problem is the availability of a person or service to perform the activity. In Glasgow's experience, only the very largest projects (major collaborations and similar) can justify the resource for a full-time data / project manager. Other, smaller, projects may only be able to justify these roles at 0.2 FTE or less. There is no pool of experienced data managers within the university whose time can be bought out by projects for these purposes.

Adding long-term storage costs to an EPSRC funding application.

Background: The University of Glasgow developed a costing structure for long-term data storage in Enlighten: Research Data. This was circulated to EPSRC who approved the model in principal.

In May 2015, a researcher asked the RDM service for guidance on what to include in his application for long-term storage. In addition to needing the funds to cover long-term storage, he believed that it was important to be seen to be giving the new EPSRC expectations for research data suitable consideration. The RDM service provided the costing information and the researcher added costs for 1 TB of long-term storage as directly allocated costs.

In September 2015, EPSRC contacted the applicant to ask for further justification of the costs, otherwise the costs would be removed from the application. This query from EPSRC was despite their own assurances at the time that these costs were eligible [8, 9]. The RDM service contacted the EPSRC on the researcher's behalf to clarify (again) how costs should be justified in funding applications. The feedback from EPSRC was that the costs were eligible and the justification wording was adjusted slightly

- to make it clear that the costs would be charged as a one-off cost during the lifetime of the project
- to make it clear that this volume of long-term storage in Enlighten: Research Data was not part of the core University storage provision

The EPSRC data contact also liaised with the EPSRC application contact at their end to ensure that it was clear the costs were eligible.

A few months later, we heard that the funding application had been successful, including the costs for the long-term data storage.

A systems approach for costing RDM?

At the moment, costs for RDM activities are added to funding applications in an ad hoc manner. The RDM service at Glasgow would like to see a more systematic approach to adding these costs to applications, and have explored a couple of different options for doing this.

The first option is the addition of a field to our research system to acknowledge that RDM costs have been considered. This would be the ideal solution as the vast majority of funding applications written at the University of Glasgow have to be entered on the research system before the

application can be submitted. As a very minimum, asking if RDM costs have been considered would raise the awareness among researchers to the potential for adding these costs to application. When this system option was first considered, the University was in the process of switching to a new research system and the field request was added to the long list of desirable attributes. Two years have elapsed since this was requested and no progress has been made on this front.

In the absence of a truly systematic option becoming available in the near-future, the RDM team at Glasgow have targeted the next best thing – the people who use the research system. Around the same time that the new research system was being implemented, a project was underway to revamp research support at Glasgow [10]. This project presented an opportunity to provide training to large numbers of research coordinators, who have responsibility for costing research applications and adding application information and data to the research system. The RDM service spoke with these staff about the importance of considering RDM activities when costing applications, and provided a contact email for staff who needed more information or help with this. Unfortunately, staff turnover in these posts has been rapid, and this expertise has been largely lost from this cohort of staff. This represents a major opportunity cost to the University, and Glasgow has not yet found a satisfactory systems approach that routinely sees RDM costs considered in funding applications.

Acknowledgements

Links

[1] Incremental Project http://www.dcc.ac.uk/projects/incremental

[2] University of Glasgow Code of Good Practice in Research https://www.gla.ac.uk/media/media_490311_en.pdf

[3] University of Glasgow Postgraduate Research Code of Practice https://www.gla.ac.uk/research/ourresearchenvironment/prs/pgrcodeofpractice/

[4] University of Glasgow Good Management of Research Data Policy https://www.gla.ac.uk/media/media_555892_en.pdf

[5] University of Glasgow RDM service https://www.gla.ac.uk/myglasgow/datamanagement/

[6] EPSRC Expectations https://epsrc.ukri.org/about/standards/researchdata/expectations/

[7] Enlighten: Research Data http://researchdata.gla.ac.uk/

[8, 9] EPSRC guidance on responsibility for costs
https://epsrc.ukri.org/about/standards/researchdata/responsibility/

http://blogs.rcuk.ac.uk/2013/07/09/supporting-research-data-management-costs-through-grant-funding/

[10] University of Glasgow, Transforming Research Management
https://www.gla.ac.uk/myglasgow/staff/transformingresearchmanagement/

[11] Cerif for Datasets project final report
http://www.cit.sunderland.ac.uk/downloads/files/tpdl_c4d_final.pdf