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Introduction
The aim of this project was to examine what research funder policies require in terms of research data management (RDM) and related activities, and what they are willing to fund through grant awards. This research would then be synthesised into a community resource which would be published on a community platform.

The questions to be addressed were:

- What is contained in funder policies regarding RDM and related activities? What is the variation between policies?
- What activities are supportable through grant funding? What is the variation?
- How should RDM activities be added to a grant application?
- How can institutions use grant funding for RDM activities?
- What do institutions need to do to account for these activities post-award?
- What is current practice?
- What is good or best practice?

Outputs
Output 1 – Systematic review of funder RDM policies
SHERPA Juliet was used to identify UK-based research funders, and all funders identified by this route were included in our research. We also included the European Research Council, European Commission and National Institutes of Health as these are significant research funders in the UK.

RDM policies and guidance from these funders were gathered, along with other relevant information from, for example, award terms and conditions. This information was categorised and synthesised into the first draft of a systematic review document.

The funders were then contacted for further clarification of their policies. Major funders (UKRI, CRUK and Wellcome) were asked if they would meet with our researcher to discuss their policies. Other funders were emailed with a questionnaire.

Responses from the funders were incorporated into the final version:

Output 2 – Guidance notes on funder requirements for RDM
The funder requirements systematic review (output 1) was used to create a set of funder-by-funder guidance notes.

The information in the review was broken down on a funder-by-funder basis, summarising the requirements and provision from each research funder.

The format of the guidance documents produced in Output 2 was guided by the feedback received in the workshop held in September 2018 (there is more information on this below).

The guidance notes have all been deposited in Zenodo. A full list of guidance notes for funder requirements is available in Appendix 1.

Output 3 – Case studies in RDM sustainability
Requests for participants were issued at meetings (eg the 13th International Data Curation Conference, 2018 (IDCC18), Barcelona), via the JiscMail Research Data Management discussion list and by personal invitation.

Six institutions indicated an interest in contributing to our case studies, of which four institutions followed through to completion.

A question set to guide the case studies was sent to the contact person for each institution. The institutional responses were synthesised (together with other information available about each institution) into case study drafts which were then returned to the participating institutions for comments and review.

The feedback was incorporated to produce the final versions:


Workshop
A workshop was held in Glasgow on the 6th September 2018 in support of this project. The workshop was attended by 40 participants. The purpose of the workshop was twofold: to disseminate the initial findings of our work, and to solicit feedback to help shape the community resources which would be the final output from the project. The program for the workshop is available at https://docs.google.com/document/d/1jnR7aYrwcVuF06a6JHXOB99DFLjl4fHeh3fPgyh7lg/edit?usp=sharing

1 The JiscMail research data management discussion list (RESEARCH-DATAMAN) can be subscribed to here https://www.jiscmail.ac.uk/cgi-bin/webadmin?SUBED1=research-dataman&A=1
Presentations were given to highlight the main findings in the systematic review (Output 1) and to introduce and advertise the institutional case studies (Output 3).

Group discussion sessions in the workshop allowed us to collect feedback on how the community would use the outputs from our work, how they would like to see the outputs presented and where the community would like to see the outputs made available. We also discussed how the outputs might be kept up-to-date in order to maintain them as a useful community resource.

In addition to meeting these aims, the workshop collected additional requests for clarification from research funders which will be fed back to funders as part of our ongoing conversation on RDM.

Output availability and hosting
Participants at the workshop were asked to vote on sites where the resources generated by this work should be hosted / made available. The options were:

- The Research Data Network
- Sherpa Juliet
- Jisc RDM toolkit
- Digital Curation Centre webpages / DMPonline
- Zenodo

Participants were also given the option of suggesting an alternative host site.

From the poll results, three options stood out – Sherpa Juliet, DCC/ DMP online and the RDM Toolkit – all with equal preference rating. The Research Data Network did not feature in any of the choices made.

Further analyses of the comments accompanying the poll results revealed that although Sherpa Juliet was considered to be a well-known resource with an easy to use tabular overview, there were several concerns over how well it is maintained. Similarly, concerns over the introduction of charging for DMPonline caused it to be viewed less favourably by some participants.

The RDM toolkit was seen as ‘the natural home for this resource’ and participants were keen to see the RDM toolkit developed further by the addition of more useful information.

Since the RDM toolkit links to resources, rather than hosting them directly, it was still necessary to identify a host site for the resources. Zenodo was settled on for this purpose for two reasons:

- Firstly, Zenodo was viewed as a ‘neutral’ repository which didn’t belong to a particular institution or organisation.
- Secondly, Zenodo supports versioning. This means that if / when the resources are updated to reflect changes to funder policies, the links to the resources should not break, provided the ‘all versions’ DOI is used. Further, all preceding versions of the resources will still be available (with metadata indicating the dates on which they were superseded), meaning that interested parties will be able to check older requirements for legacy funding, and these versions can be referred to directly using their individual DOIs.

Future sustainability of resources
In order to make the outputs from this work as useful to the RDM community as possible, it is necessary to ensure that the outputs are easy to maintain.
Since there isn’t ongoing funding available as part of this project for future maintenance of the outputs, we have considered sustainability and continuity when designing the final outputs, and when deciding how to make them available.

The most important of the outputs in terms of keeping up-to-date are the community resources produced as output 2. The following steps have been taken to help make the resources sustainable:

- Each funder reference sheet has a list of resources (and date accessed) used to create the guidance listed on the sheet. This will allow users to determine if the underlying guidance might be out of date.
- A brief ‘how to’ guide has been created to allow future working parties to create updated versions of the resources quickly and efficiently [https://doi.org/10.5281/zenodo.1562230](https://doi.org/10.5281/zenodo.1562230)
- The resources have been made available from Zenodo, which supports versioning, as discussed above.

None of these steps (either alone or together) will make the resources sustainable. In all cases, it will take work by an interested individual or group to update the resources, but these steps should make this a very simple task.

There is a precedent for this system for updating community resources: in 2016/2017 working groups from the UK RDM community created a range of rubrics to help with evaluating data management plans against funder requirements. The outputs from this project were deposited in Zenodo as community resources. In 2018, in response to the change in policy and DMP requirement from the AHRC, a call was put out on the Jisc DATAMAN list for a new working group to update the AHRC rubric. The RDM community responded and created a new AHRC rubric which is available through Zenodo [http://doi.org/10.5281/zenodo.1745533](http://doi.org/10.5281/zenodo.1745533).

**Other Issues Arising**

At the workshop in September, a session was given over to open discussion. The idea was to create space to discuss things we still didn’t have enough information on, and also to discuss other ideas which may sit in the space around this project.

While this project won’t address these ideas and questions directly, we would like to highlight this discussion as Jisc may be considering or planning work in these spaces.

Some of these ideas and questions raised are summarised below.

**More funder involvement**

Most participants wanted to see funders more actively involved in communicating their data policies (and changes in these policies) to researchers and the RDM community. Currently, the onus is entirely on the community to look out for changes and understand the implications.

**Repeating the Systematic Review**

There was near-unanimous support for the systematic review of funder policies to be repeated periodically. The time-frame for the repeat was less unanimous, with a range of 2-5 years being suggested.
Feedback on the resources
Lots of participants would like to have the ability to feed-back ideas and comments on the community resources over time. Zenodo does not support this functionality and it was speculated that this might be a useful function to feature in the RDM toolkit.

Funder requirements wiki
A final popular suggestion was for a funder requirements wiki which could be maintained by the community. This would need to be hosted on a site accessible to all interested parties. It was suggested that Jisc may be the natural host for a resource of this nature.

Appendix 1
Funder Requirement Guidance Notes deposited in Zenodo as community resources:

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