Helping the community speak the language of research data: the Jisc RDM Toolkit

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Knowing where to find information on research data management (RDM) has historically been a major challenge – not because there is no material to consult, but due to the ever increasing amount of it spread thinly all over the web. Furthermore, information on RDM can be found in different outlets based on a reader's role, level of knowledge of the topic, affiliation and more.

With support from practitioners at UK and international institutions, Jisc has sought to address the above pain point. Over the course of the last year, we worked directly with 15 institutional experts to gather a comprehensive body of knowledge. We have now delivered this in the form of a signposting service that does not aim to replace existing sources of information but simply link to them.

What is the Jisc RDM Toolkit?

During the past three years, Jisc has been working on the Research Data Shared Service[1] (RDSS, a research object repository solution), and the experience of engaging all stakeholders in the research data community put us in an ideal position to develop a further RDM-related service. The Jisc RDM toolkit[2] aims to be a hub where information on the topic from a variety of sources is aggregated to improve access. In its future iterations, it will also start including resources and guidance on the RDSS to complement the existing high-level guidance with applied information on how to approach RDM using Jisc's services.

The toolkit has been developed to focus on its users (see Figure 1), as various audiences are expected to interact with resources differently:

- **Researchers** will likely wish to see selected hot topics in the first place and dig deeper only in specific cases;
- **Research support staff** (including, e.g. librarians, research managers, archivists and other information professionals) usually require access to more detailed information but also need to focus on the broader institutional context;
- **IT specialists** are normally involved only in some RDM-related activities and can likely disregard a range of non-technical material.

Based on the above, we designed the toolkit to provide custom pathways for these types of users, so as to enable easy discovery of content and minimise the number of clicks between a search query and access to the actual resource needed.

As we are aware that research data is more commonly understood by people working in technical fields, we made efforts to ensure the toolkit would also speak to those in the arts, humanities and social sciences. The idea that RDM applies to all disciplines is key,

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1   *https://www.jisc.ac.uk/rd/projects/research-data-shared-service*
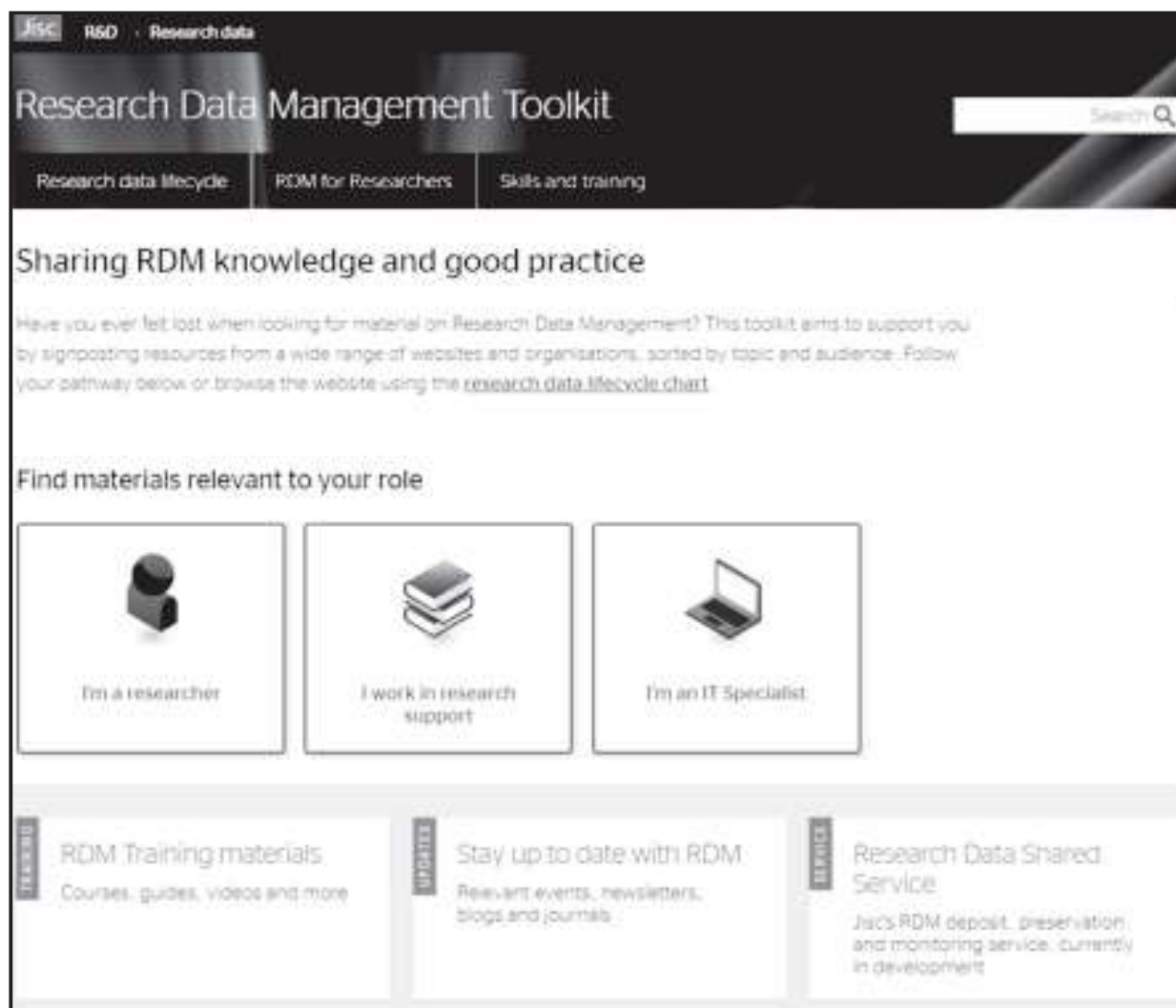2   *https://rdmtoolkit.jisc.ac.uk*

Figure 1 - The RDM Toolkit's home page

particularly considering that digital humanities and social sciences have changed and data concerns have therefore risen significantly over the past few years[3]. With this in mind, we prepared a dedicated toolkit page to remind all users that researchers in all disciplines produce material that can be considered as research data, including notes, interview transcriptions, interview coding, marked-up text and digitised books, paintings and works of art.

The RDM lifecycle

The Jisc RDM Toolkit was created to signpost relevant reports, guides, academic articles, links to websites, tools and more. The content of the toolkit is presented in a range of "topic" pages organised by research data lifecycle step (see Figure 2) and including a list of references and further reading material split by audience. All toolkit visitors can access an interactive version of Figure 2, which can be used to reach specific research data lifecycle steps and the topics nested under these.

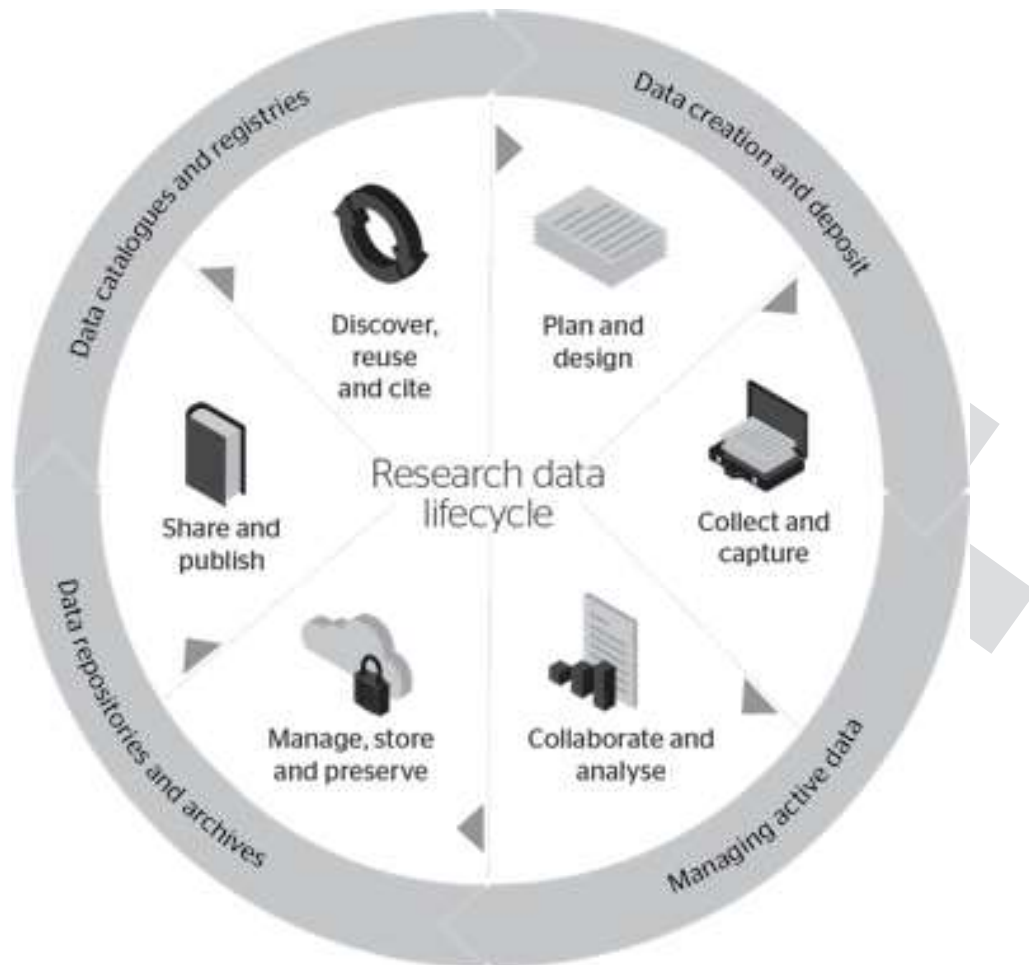
3   https://www.chronicle.com/article/Digital-Is-Not-the/241634

Figure 2 – Jisc's research data lifecycle diagram (CC BY-ND)

Based on the research data lifecycle, we have developed an RDM checklist[4]. This is expected to be a useful tool for all people involved in research data management, whether in higher education institutions or other research organisations. By following the checklist, readers are asked to answer a series of questions that, if answered affirmatively, are expected to lead to good-practice behaviours in the majority of research fields.

In the RDM Toolkit, the use of the research data lifecycle is leveraged to fulfil two use cases:

1. *As a novice in the field, I wish to find out about RDM and what it entails*: in this case, users are recommended to follow the research data lifecycle structure and read topics in the order they are presented.

2. *I know about RDM, but I wish to further explore a given area*: in this case, users can click on a topic in the diagram or freely browse the website to locate what they need.

It should be noted that the dedicated page for research support staff[5] includes a wealth of material that is not available as part of the RDM lifecycle. This deals with the institutional context and services, but also with topics such as stakeholder engagement and recruitment.

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4   *https://rdmtoolkit.jisc.ac.uk/plan-and-design/rdm-checklist/*
5   *https://rdmtoolkit.jisc.ac.uk/rdm-for-research-support-staff/*

Supporting the research community in practice

The Jisc RDM Toolkit aims to be the go-to place for all those involved in research data management. It does so by using custom pathways to access content, as explained above, but also by trying to reduce the effort required by higher education institutions to maintain their own RDM pages, links and resources. During the project that led to the creation of the RDM toolkit, some people went as far as stating that institutional efforts in the area may be decreased if the toolkit proves reliable and credible. In such a scenario, UK (but, possibly, also international) research organisations may free up resource and refocus their efforts in other areas of research or on personalised research data support to their users.

The toolkit also aims to support existing community efforts in the area of research data, particularly by using the CASRAI vocabulary[6]. At the institutional level, slightly different terms than those found in the toolkit might be in use, so we wished to encourage readers to familiarise themselves with this more standardised approach to discussing research data.

Finally, the toolkit includes a suggestions form. This is key to enable the toolkit to become a peer-supported platform that really fulfils the needs of the community. All toolkit visitors and users are invited to suggest updates to the current content or to recommend the inclusion of new pages or topics.

Maintaining the RDM toolkit

Since new material on RDM is released continuously and the field is evolving fast, it is essential to maintain the resources that have been included at launch. To do so, we (the authors of this article) are leading a working group to review and update the content of the toolkit on a quarterly basis: this will ensure that (i) resources are current and represent the sector's state of the art; and (ii) that recommendations made by toolkit visitors are assessed and incorporated whenever suitable.

Based on our forecasts, the Jisc RDM Toolkit has potential be an important tool for years to come. The current maintenance process will be followed for three years, after which the whole toolkit will be appraised and edited as required to reflect the changing needs of an evolving community.

For more information or to get involved in the maintenance working group, please get in touch at andrea.chiarelli@research-consulting.com or caroline.ingram@jisc.ac.uk.

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6   http://dictionary.casrai.org/Category:Research_Data_Domain