Research data management

Today we can do more research with more data in less time and at less cost. Social science research continues to be ever ambitious and ever complex. Computing power allied to digital storage and transmission allows us to combine existing data with new forms of digitally generated administrative and transactional data. However, with opportunities on what can be done through data emerges the challenge of managing that data.

Consequently, researchers need to be aware of the importance of getting data collection, organization, contextualization, storage, and dissemination right. While research data management has always been integral to good research practice, today it is critical.

What is research data management?

Research data management is about looking after your data. It concerns the development and implementation of practices, procedures, and policies to protect, validate, and describe data. Doing this ensures its quality thereby facilitating potential re-use.

So, what does it mean to “manage your data”? It means two things: to keep data safe from harm and making data useable and discoverable in a world where its value can outlive its outputs.

Thinking about and implementing research data management throughout the research lifecycle is essential to ensure data quality, contextualization, preservation, access, and reuse.

Responsibility for research data management lies not just with researchers but also across institutions and funders.

Research data management policies exist at institutional or national levels and significant investment has occurred in infrastructure to support research data management. However, this investment is often at an institutional level or is not discipline specific. For example, see the Digital Curation Centre’s Data Management Planning Online tool (DCC 2013).
Why research data management?

Practicing good research data management will keep your data alive for generations, creating an impact long after your original research.

Regardless of whether you intend to share your data or not, early thinking about how you will manage the collection, use, and store data is a must. Why? Because a little time spent on research data management at the start of a project means a lot more time for writing and publishing at the end.

The advantage for researchers in addressing research data management early is that it gives you a strategy for confronting issues like:

- **consent, data ownership and licensing:**
  If you are re-using data, what can and what can’t you do with that data? If you are creating data, are there any restrictions on future reuse you need to justify?

- **research integrity and replication:**
  Good research is replicable research, so context is critical. Have you described the process of data creation and analysis so others can understand, evaluate, and reuse the data or methodology without having to ask for further information?

- **data security and the risk of data loss:**
  Think about how are you going to share data within a research team. Do you know what happens to your data when you press “Save”? Is it being backed-up, where is it stored, and who can access the data?

- **safe and secure disposal of data:**
  Copies of data, or data not suitable for long-term preservation, need to be disposed of without compromising guarantees of confidentiality given to participants and funders.

We believe that designing and implementing a research data management strategy increases and extends the value of your research - saving time and resources in the end. What is more, funding bodies increasingly view how a proposal addresses research data management as an essential component of any funding request.

References and further reading


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