Sharing is caring

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In this session, we are going to talk a little about why sharing research data is important and why it should be regarded as a crucial part of the research process. It is just as important for the sharer as it is for the one accessing the data, and most researchers will at some point find themselves at the receiving end as well as the providing end.

We will start off the session by talking a little about why sharing data is important.

In the past years there has been a lot of talk about a reproducibility crisis within academia, with growing concerns that fewer and fewer studies can be reproduced. One of the best ways to address this problem is to ensure that the underlying data of the study can be accessed, so anyone may review the data and ideally reach the same conclusions in their analysis. Sharing the underlying data is thereby one of the most important ways of increasing transparency in the research process.

The increased transparency goes hand in hand with a higher level of self-reflection and validation of the research methods used, and may lead to an overall increased quality of the research. A willingness to share the research data, thereby offering peers the possibility to review the entire research process step-by-step, is also indicative of sound research ethics. Sharing data may also ensure that data can be accessed in the long run, even well beyond the ending date of the affiliated research project or the expiration of the contract. Sharing the data makes it possible for other researchers to use the data for other projects or purposes, which in the long run is beneficial not only for the research community as a whole, but also for your own research career.

Sharing research data is, in other words, a great way of increasing the impact and visibility of your own research. In a time where the hireability and career paths within academia are more than ever marked by a publish or perish mode, it is of vital importance to showcase your entire work output, and not only the publications per se. The amount of work that leads to the publication of a paper may be immense, and it is therefore important to make the most of the work put into the study. By sharing the replication data for your study or paper, you may get extra citations, and you will release the full potential of your research, thereby making your data available for reuse, further studies and possible collaborations.

Without sharing your research data and equipping it with standardised metadata and thereby making it detectable, a significant part of your research output will remain unused and invisible, and

your efforts as a researcher will not contribute to further the advancements in your fields as they could have.

Besides the apparent benefits of sharing data that we have been talking about until now, there may also be requirements involved, especially when it comes to research projects that have received external funding. Research projects funded by the European Commission, for example, are required to share their research data in line with the European Commission data sharing policy, which states that data should be shared "as open as possible and as closed as necessary". Similar requirements can be seen from more and more major research funders, such as the Wellcome Trust and the Bill & Melinda Gates Foundation. More and more national funding bodies have also adopted an approach similar to that of the European Commission.

We are also seeing a shift towards research data management taking place already in the grant application process. Applicants are often required to have a plan concerning their research data at a very early stage of the research process, and they have to show that it goes in line with the funder's research data management policy in order for the application to be reviewed.

More and more journals are also requiring authors to share the underlying research data. For some journals, it is sufficient that the author provides access to the data during the editorial process. Often, however, journals are demanding that the data can be accessed by any reader of the journal, unless special circumstances, such as the use of sensitive data, prevent the data from being shared openly. Authors that do not comply with the journals' data sharing policy may not get their work published.

Being able to access the data is, as we have seen, of benefit not only to the author and the scholarly community as a whole, but from the journal's point of view it is also an important way of ensuring that the results in no way are fabricated or that the study in any other way is fraudulent.

Although more and more scholars see the importance in sharing and accessing data, less than every second researcher practices it. How can this be?

There are a number of over-arching obstacles, or chief worries, that many researchers struggle with when it comes to sharing data.

Many researchers experience that they don't have the adequate skills or necessary training to organise and share their data in a professional manner, and they don't know where to deposit the data. Lack of time is another problem.

Some researchers are worried what would happen if others get their hands on their data. Perhaps others will publish studies that the authors of the data could have done themselves. Some may also fear facing criticism from colleagues on how they have executed their studies, or facing questioning of the conclusions they have drawn from the collected body of data. For some researchers, ethical and legal considerations constitute yet another barrier.

These concerns are fully legitimate and understandable. Sharing research data is indeed time consuming and there is quite a lot to keep in mind when sharing data. Hopefully this course will help to address some of these obstacles, and for the future, one can hope that the sharing of data is seen more as an integrated part of the research process rather than as yet another administrative burden.