

Beyond the PI: Extending Open Science training to non-traditional audiences.



Edinburgh Open Research

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Technicians

The Technicians Commitment, endeavours to acknowledge the vital role technicians play in research with guidance on visibility, recognition, and career development. The University's Research Cultures Delivery Plan (2023-25) promotes the implementation of a university-wide Fair Publication Policy; the College of Medicine and Veterinary Medicine has one already. The Library's Research Information Management team is also exploring the adoption of the CRediT or Contributor Role taxonomy.

There is, however, more to OS than publications. Technical support on a research project is often a black box: researchers insert raw data in one end and magically get results out the other. Data processing activities are not properly recorded, and raw data are may be hidden too when technicians are using proprietary hard and software. How these data are documented and preserved remains a mystery outside the technical support team.

Addressing these issues is important, not least because technicians are now playing a much more significant role in funded projects, with some taking on the role of PI or Co-I.

Bespoke training in OS tools and techniques will focus on applying FAIR principles to outputs produced by technical teams. This will ensure that, wherever possible, open and accessible formats are employed; outputs are well documented, organised, and deposited in a suitable repository for future access.

OS Training will complement fair publication policies and guidance by giving technicians a greater stake in data as a publishable output. It will also highlight the important contribution technicians can make to publishing protocols and methodologies.

Post Graduate Research Students (PGRs)

A 2024 study by Edinburgh's Open Research team indicates growing interest among PGRs in developing OS skills. Generic OS training was found to be useful for understanding general concepts, funder and institutional requirements, best practice, etc. However, PGRs want discipline-specific training in how to make their own research more open. A 'one step at a time' approach to changing research methods and workflows is seen as more achievable than 'all or nothing.' The study also found that PGRs appreciate and want more individual support.

OS drivers identified include: reproducibility and research integrity; career progression; and the need to work more collaboratively.

Recognising that PGRs are the next generation of career researchers, and are therefore in need of support, Edinburgh Open Research and Research Data Support began bespoke training in 2022. Introductions to RDM and OS support are followed by hands-on data management planning workshops. One-to-one DMP support is also provided.

Informatics PGRs were the first to receive this training in 2022. Since then, we have added programmes from Archaeology, Health in Social Sciences, Education and Sports Sciences, Clinical Psychology, and most recently Social and Political Sciences.

Working closely with supervisors, as well as experts from outside the University ensures training is focused and relevant. To better reflect the requirements of different disciplines, we are shifting away from Data Management Planning towards Output Management Planning.

Post-Graduate Taught Students (PGTs)

Ethics Committees across the University have begun requesting training and support specifically for PGTs.

Research Data Support has been supporting PGTs (and undergraduates) since 2019, with a YouTube series and accompanying handbook; Data Mindfulness: Making the most of your dissertation. We also hold awareness sessions during the Library's biannual Dissertation Festivals.

PGT students in the social, health, and education sciences now receive bespoke training. Ethics Committees and PGT supervisors identified data protection requirements and ethical data management as key learning outcomes for these sessions. Training also includes a high-level overview of OS concepts, and expectations. Students are encouraged to ask questions about the value of OS practices for their current and future academic work.

'Lightweight' Data Management Plans have been developed, which focus on aspects of data management most relevant to PGT students; e.g., legal and ethical collection; storage. So far, these have been adopted by two schools in the University: Moray House School of Education and Sport and the Medical School.

Training and outreach in Open Science (OS) are usually aimed at Principal Investigators (PIs) who have or are trying to get funding. At the University of Edinburgh, however, Research Data Management (RDM) and other Open Science policies apply to all research projects undertaken across the University.

It is necessary, therefore, to look beyond our primary targets and engage with the whole community of researchers, whether they have external funding or not.

Participatory Research

Participatory Research is an important feature of the research landscape because it provides an opportunity to address common challenges around transparency and accessibility. OS practices support verifiability and reproducibility, which is essential for establishing trust in Participatory Research projects. They also maximise opportunities for reuse beyond the original research context, thereby increasing the value of all a project's outputs.

Clearly, for Participatory Research to fulfil its scholarly potential and OS practices to play an effective role in that, then non-professional researchers must be more than unpaid data collectors. They must participate fully in the research process, which means being able to understand and make decisions about data collection, management, preservation, and sharing.

To facilitate this, training and awareness will be developed for a non-professional and potentially inexperienced audience. Avoiding technical language, workshops will describe the value of OS for every stage of a project, from data management planning to publishing and dissemination of results. Training will, as usual, be as practical as possible, however participants must be able to understand the wider research context; the range of tools and techniques available; and the scholarly infrastructure that supports them.

Professional Services

At Edinburgh, Professional Services includes Research Support, Finance, and Funding teams as well as postgraduate programme administrators. Day-to-day, these teams are directly involved with researchers and students and so are better informed about current and planned research. A 2022 study commissioned by Edinburgh Digital Research Services indicates that researchers often see these teams as more immediately accessible and more relevant to their specific needs than central services, such as those provided by the Library.

Clearly, it is important that support teams understand the value of OS in general. But they must also be able to identify potential intervention points and signpost researchers to the relevant OS support available, even when the researchers themselves are not aware that they need it. Therefore, training and awareness sessions also provide details of the OS tools and the dedicated OS support available to researchers.

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