

# ORCC UKRN Primer on Working in Open Research



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This is an introductory guide for those working and considering working in the area of open research. It was drafted by members of the [Open Research Competencies Coalition](#).

## What is working in Open Research?

Open research, sometimes also known as open science or open scholarship, refers to sharing research outputs, methods and materials throughout the research process under terms that enable reuse and redistribution. It emphasises collaboration and applies to all disciplines. Roles typically require a working knowledge and competence in open access, [FAIR](#) data, Research Data Management, and awareness beyond the traditional journal article to all research outputs, as well as the processes, design and management of research itself.

There are often limits on openness, for example commercialisation, ownership of Intellectual Property or patient participation so a background in these related areas can also be beneficial. Research outputs should be “as open as possible, as closed as necessary”.

Open practices also vary across disciplines and research methodologies. They could include study preregistration, open source (software and code, open hardware), lab notebooks, physical samples, methodology, protocols and documentation, as well as open access publications and FAIR data. Other open research practices include participatory research, and other forms of research co-production e.g. citizen science, use of preprints and open peer review.

Throughout the research lifecycle, open research can help increase impact through plain language summaries, dissemination via blogs and social media, or Wikimedia.

Different disciplinary norms present different challenges and opportunities to supporting open research, with different issues across STEM (Science, Technology, Engineering and Mathematics), Arts & Humanities and the Social Sciences.

UKRN have published [primers](#) focussed on specific open research practices and case studies in different disciplines including:

- Open Code and Software
- Preprints

- Pre-registration and Registered Reports
- Wikimedia & open research
- Open research across disciplines

## Why is it important?

There is a growing awareness of the need to ensure research across a wide range of disciplines are robust and transparent. For some disciplines this means that research results must be reproducible, yet many face a 'reproducibility crisis', with some published research outputs being difficult or impossible to reproduce, even by the original researchers.

Other disciplines, in the Social Sciences for example, or more qualitative research, may not be 'reproducible' per se, nevertheless it is important for research processes to be fully transparent to enable other researchers to fully understand key methodological decisions and to test hypotheses in other areas to see if results compare. This is especially relevant when research outputs cannot be made fully open due to sensitive personal data or IP issues.

Open research practices such as preregistration and sharing research data help to make research outputs robust and transparent, enabling other researchers to follow a detailed methodology and increasing trust in the research process.

Being freely available and not hidden behind a paywall means open research is disseminated more rapidly, helping to accelerate discovery, while the increased visibility of research, including for non-academic audiences, contributes to impact in the real world. It also enables people to contribute to science and scholarship themselves, through citizen science and other types of collaborative research projects, contributing to Wikimedia, empowering marginalised scholars and increasing diversity, making research more representative.

## UK context

Research funders are reviewing their commitments to open research, building on their existing commitments to openness of all types of research output. For example, UK Research and Innovation (UKRI) emphasise that [open research is integral to their mission to deliver economic and social benefit](#).

Funder mandates for open access have led to the development of new roles to support implementation as research support services seek to raise awareness and consideration of open research practices and publishing options amongst researchers at all stages of their career. Funders across Europe and worldwide have taken similar steps in support of open research.

From an economic perspective, open research makes it easier and more efficient to build on previous research providing greater value for money while UNESCO recognises that Open Science is "bridging the science, tech and innovation gaps, and fulfilling the human right to science".

## ***How might someone get involved?***

### **Skill/knowledge area:**

There are no strict requirements for specific qualifications or background knowledge for someone wanting to work in open research. Roles generally require a working knowledge and competence in open access, data sharing and Research Data Management. Research experience, or a background in Intellectual Property and copyright can also be useful.

Strong transferable skills such as communication, a customer focussed attitude, negotiation and influencing, collaboration, time management and good judgement as to what to prioritise and when to consult others are probably the most important skills for a job in this area, combined with an ability to work in a rapidly changing research landscape. Enabling open research requires post holders to be comfortable working in multi stakeholder environments and across hierarchies with a view to minimising administrative burden for researchers.

The UKRN Open Research Programme <https://www.ukrn.org/open-research-programme/>, includes a training strand where you may find helpful training materials.

### **On the job:**

Tasks may vary according to level of seniority and specialism. A more generalist role may include, but is not limited to:

- Contributing to open research plans and strategy including their evaluation / monitoring progress
- Supporting researchers in understanding open research
- Encouraging adoption of [UNESCO Recommendations on Open Science](#)
- Liaising with local Research Leaders and Managers, and other relevant roles
- Developing and delivering Open Research training to a wide variety of researchers
- Co-ordinating and developing a community/network in support of open research
- Working on services to improve processes and adoption of open research
- Liaising with research funders on open research and related initiatives
- Working on initiatives to support open research with other stakeholders at their institution and further afield
- Liaising with the local community to promote civic engagement with science and research
- Working on communications to promote open research - e.g. webpage, blogs
- Keeping informed of developments and initiatives in open research internally and externally.

Many roles may focus specifically on different aspects of open research, such as Open Access or Research Data Management. Please see the other primers in this series for further details on supporting these specific activities.

## **Looking for Open Research Roles:**

Many roles based in research organisations are advertised on [jobs.ac.uk](https://www.jobs.ac.uk). You might find searching using terms like 'open research' yields results. If you are unsure where to start when searching for a job you could look under [Library Services & Information Management](#)

as many jobs are advertised in this category but be aware jobs could come under several headings.

## Where to find Open Research Related Resources:

There are many resources available on the topic of open research either aimed at those working in open research roles or more generally on open research practices. The following provide a starting point but is not a comprehensive list.

- The UKRN Open Research Programme <https://www.ukrn.org/open-research-programme/>
- Resources offered by [UK Reproducibility Network Institutional Partners](#)
- [UK Reproducibility Network Open Research Primers](#)
- The [UK Reproducibility Network has collected by discipline](#) a list of open research case studies, examples of open research practices, and links to resources to support open research.
- [UNESCO Recommendation on Open Science](#)
- UK Research and Innovation (UKRI) has a [commitment to the different elements of open research](#)



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