

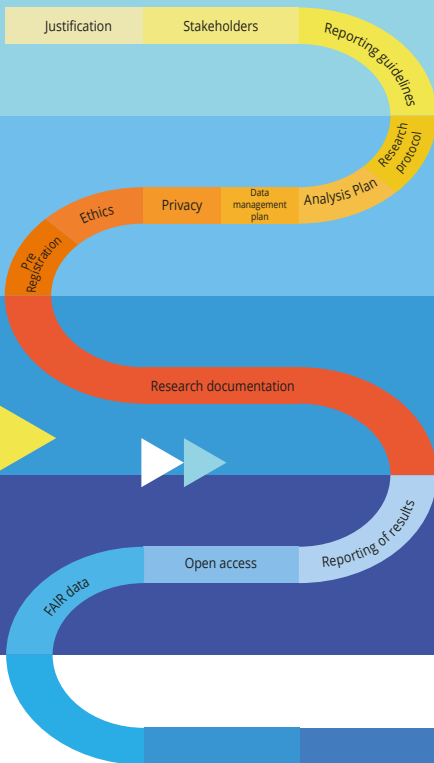


Hogeschool
van Amsterdam

OPEN SCIENCE

steps to help with responsible research

ORCID



Creating Tomorrow

These steps are inspired by the Netherlands Code of Conduct for Research Integrity, the Avoidable Research Waste movement, the replicability crisis, and principles of open science. It is primarily intended for researchers and is focused at the scientific quality process.


Download the checklist





Research justification

Which problem, theory
or evidence justifies your
research?



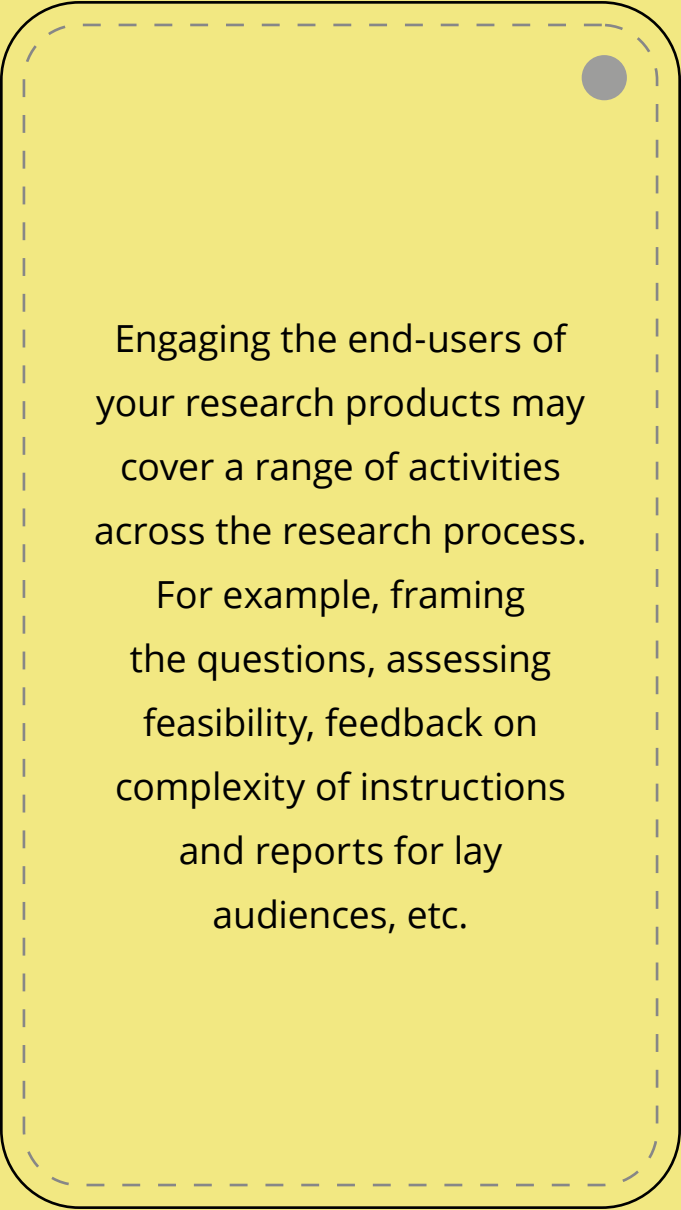
A thorough look at the literature relevant to your project or research question is always recommended.

A scoping search of the literature, with help of trained librarians is a natural starting point, ideally even at the stage of project development or grant writing.



Stakeholder engagement

Engagement of
end-users and
professional practice

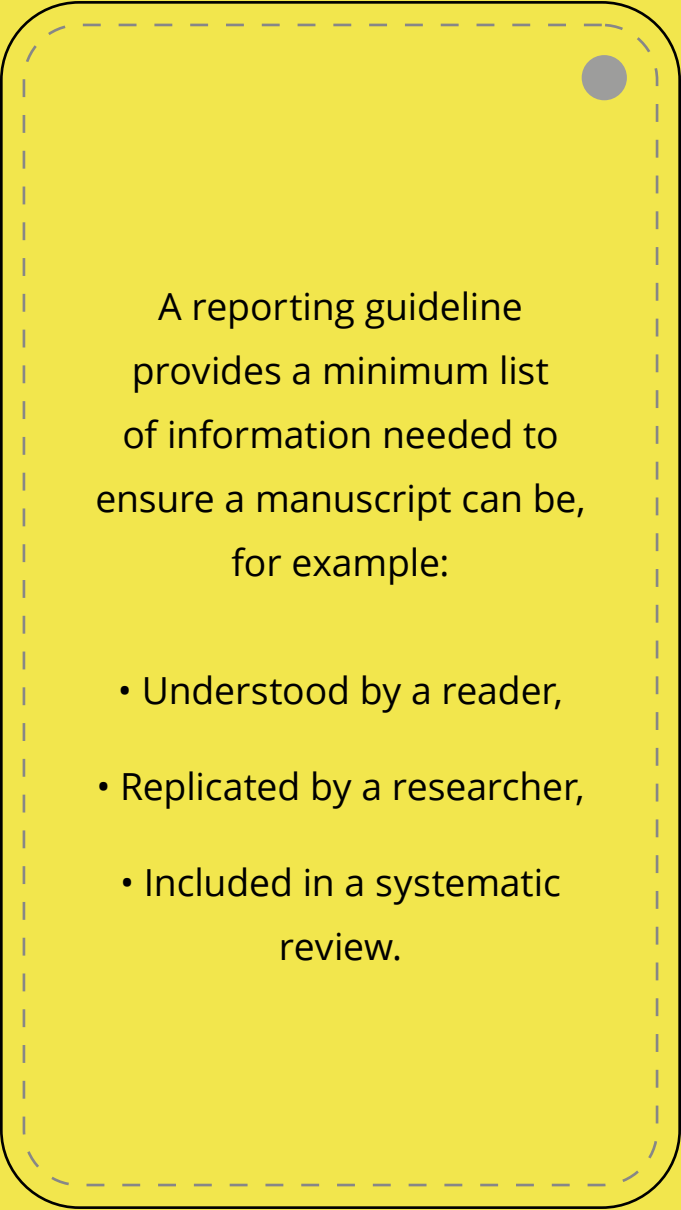


Engaging the end-users of your research products may cover a range of activities across the research process.

For example, framing the questions, assessing feasibility, feedback on complexity of instructions and reports for lay audiences, etc.

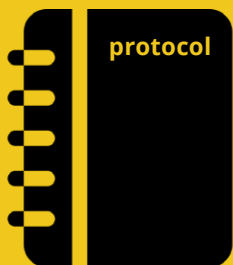


Reporting guidelines

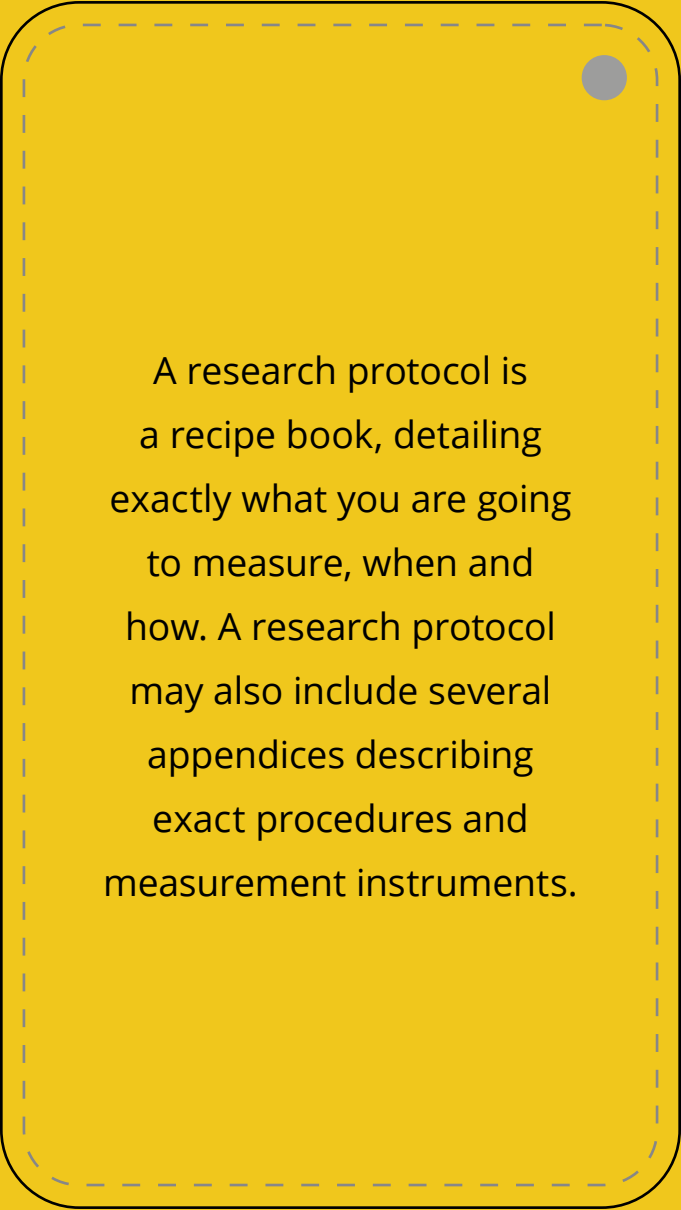


A reporting guideline
provides a minimum list
of information needed to
ensure a manuscript can be,
for example:

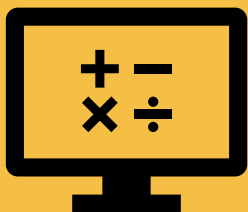
- Understood by a reader,
- Replicated by a researcher,
- Included in a systematic
review.



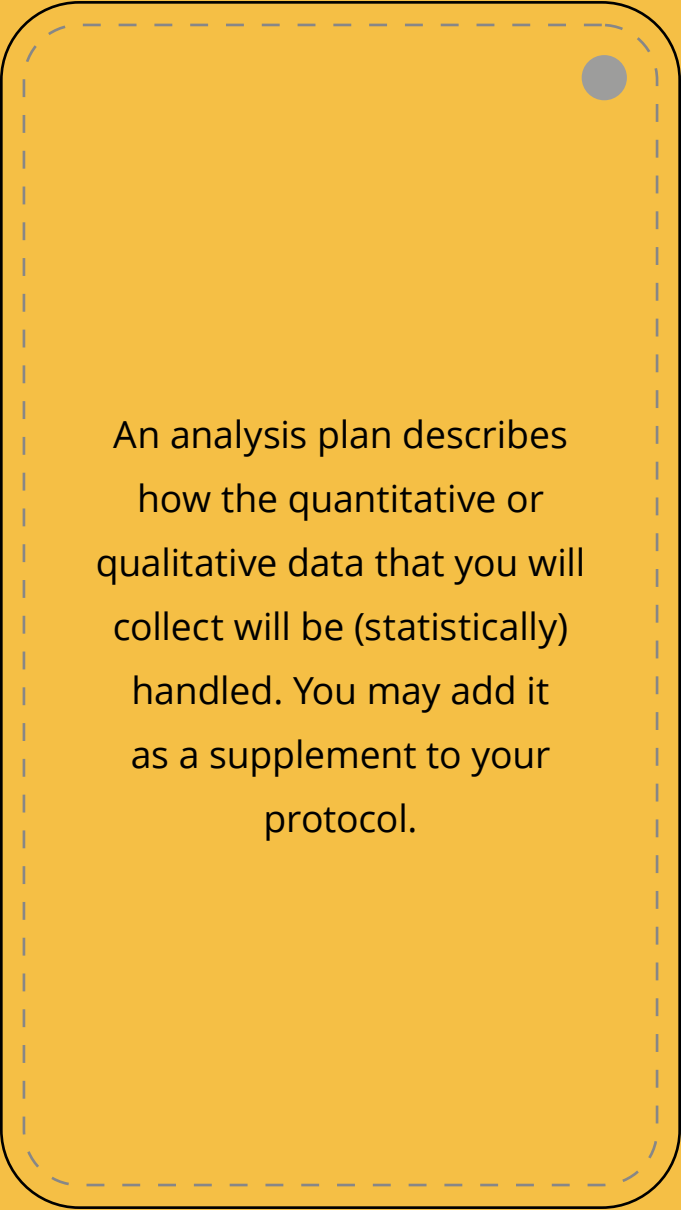
**Research
protocol**



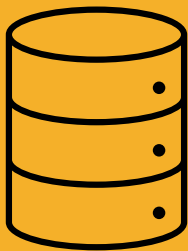
A research protocol is a recipe book, detailing exactly what you are going to measure, when and how. A research protocol may also include several appendices describing exact procedures and measurement instruments.




**(Statistical)
analysis plan**



An analysis plan describes how the quantitative or qualitative data that you will collect will be (statistically) handled. You may add it as a supplement to your protocol.



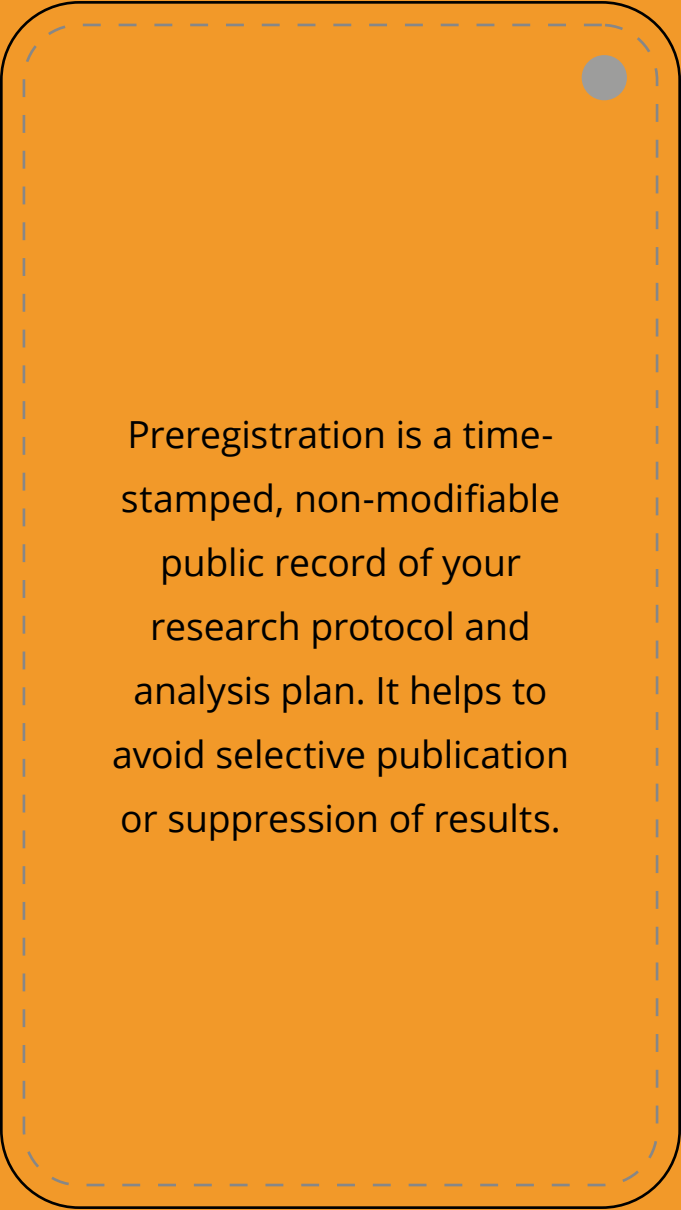
**Data management
plan(ning)**



A data management plan (DMP) is a digital document in which you describe what data you will collect, how you are going to store and manage the data during the project, and what will happen to the data after the project is finished.



Preregistration




Preregistration is a time-stamped, non-modifiable public record of your research protocol and analysis plan. It helps to avoid selective publication or suppression of results.



Privacy

Privacy is an important
quality aspect of research.



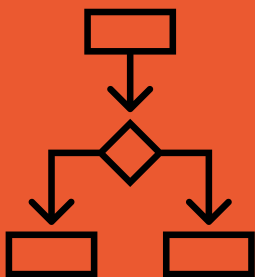
If you use information about people in research and that information is directly or indirectly traceable to an individual, you must deal with the European Privacy Act or the General Data Protection Regulation (GDPR).



Ethics

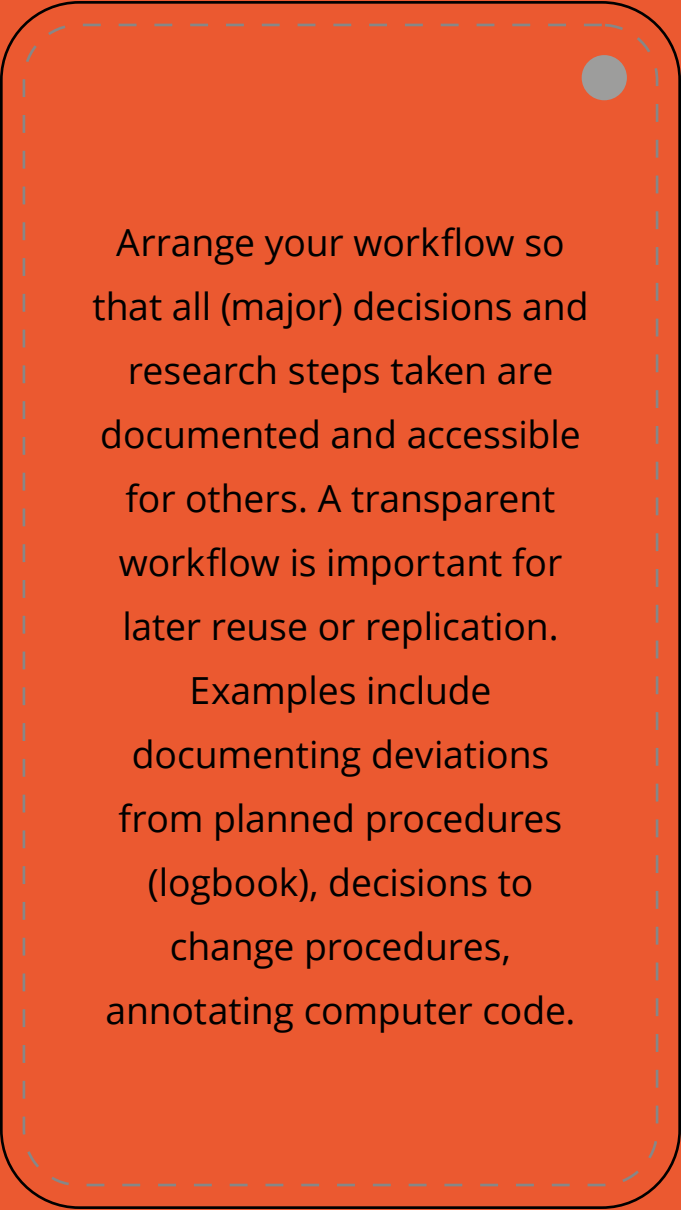


Research may impact on humans, society or the environment. Therefore, it is good practice to let a panel of independent experts assess the benefit-harm balance of your research plans.



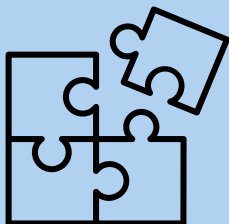
Research documentation

Creating a reproducible
workflow

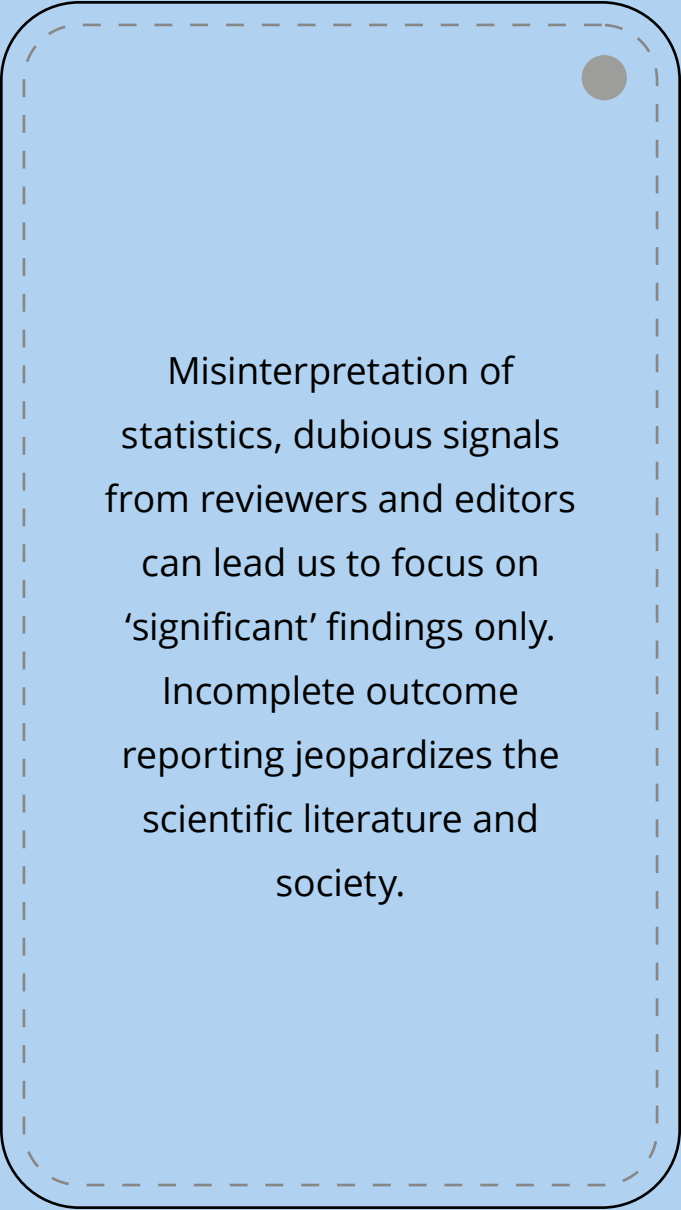


Arrange your workflow so that all (major) decisions and research steps taken are documented and accessible for others. A transparent workflow is important for later reuse or replication.

Examples include documenting deviations from planned procedures (logbook), decisions to change procedures, annotating computer code.




**Outcome
reporting**



Misinterpretation of statistics, dubious signals from reviewers and editors can lead us to focus on 'significant' findings only. Incomplete outcome reporting jeopardizes the scientific literature and society.



Open access

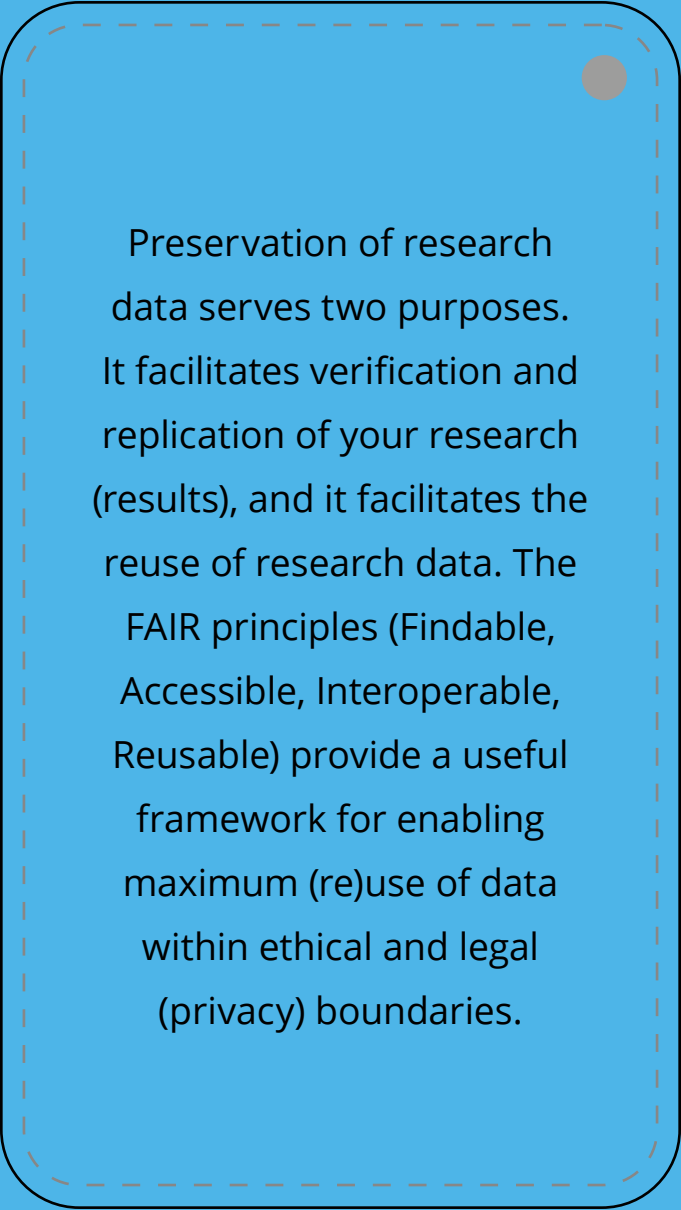


The goal of open access is to make publicly funded research accessible to everyone. Open access publications are easier to find, cited more often and have greater visibility.



FAIR data

Data archiving & publishing

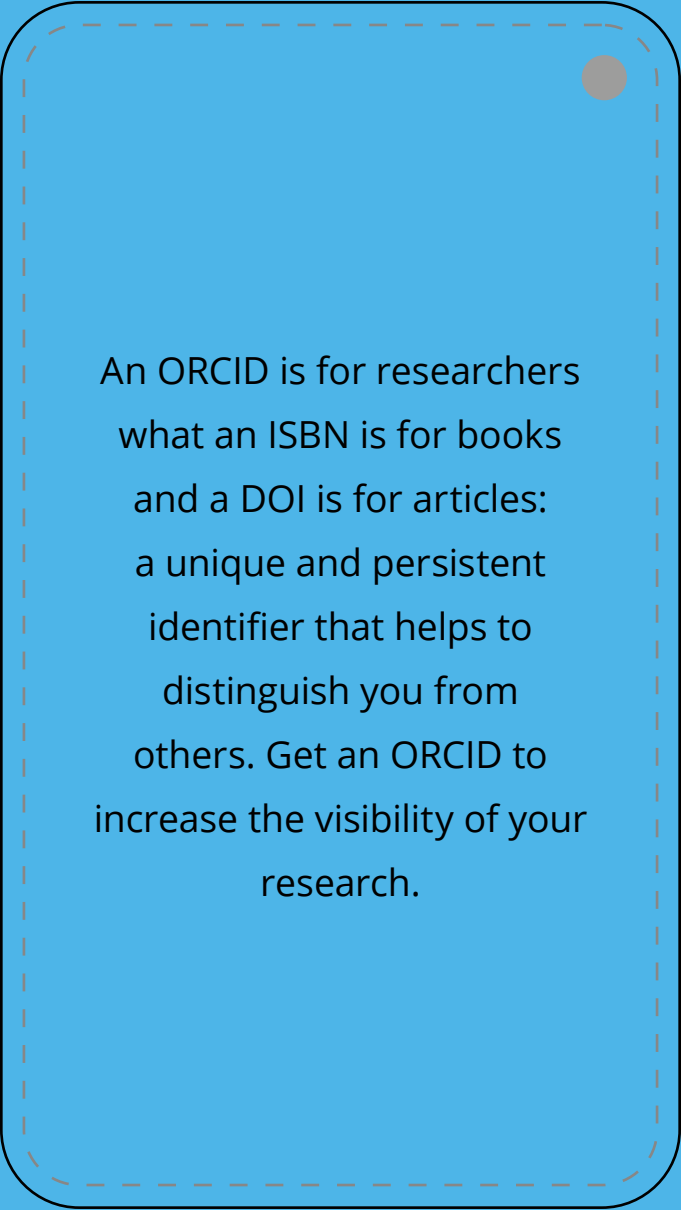


Preservation of research data serves two purposes. It facilitates verification and replication of your research (results), and it facilitates the reuse of research data. The FAIR principles (Findable, Accessible, Interoperable, Reusable) provide a useful framework for enabling maximum (re)use of data within ethical and legal (privacy) boundaries.



ORCID

A Researcher ID



An ORCID is for researchers
what an ISBN is for books
and a DOI is for articles:
a unique and persistent
identifier that helps to
distinguish you from
others. Get an ORCID to
increase the visibility of your
research.





















Acknowledgment

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