

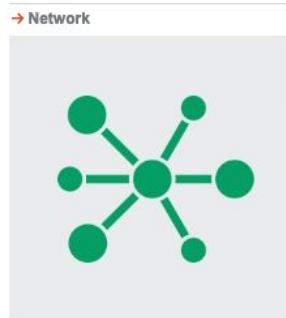
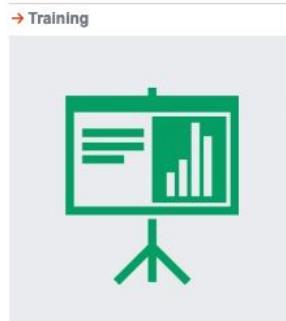
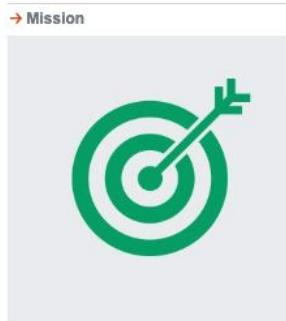


Open and reproducible science: general reasons and approaches - Introduction

Eva Furrer, Center for Reproducible Science



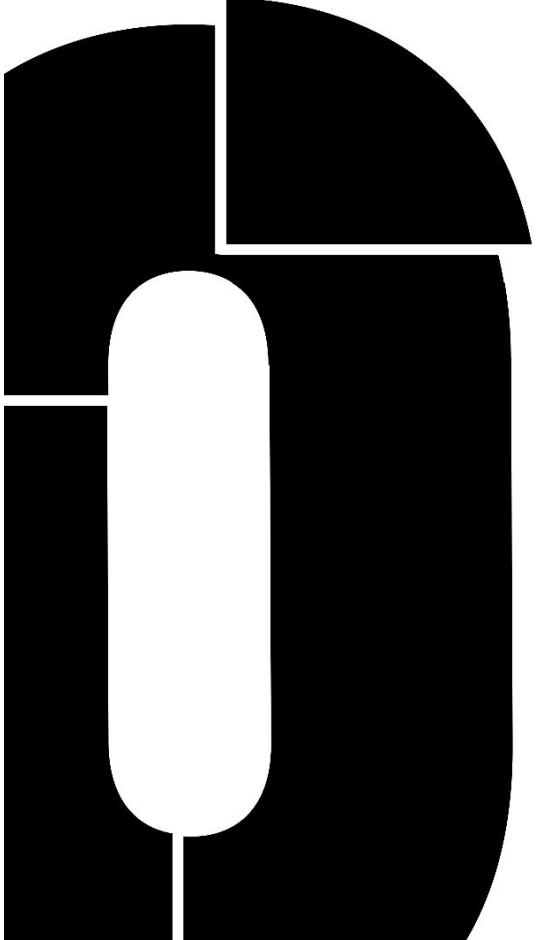
Center for Reproducible Science/ Swiss Reproducibility Network



Web: www.crs.uzh.ch
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Web: www.swissrn.org
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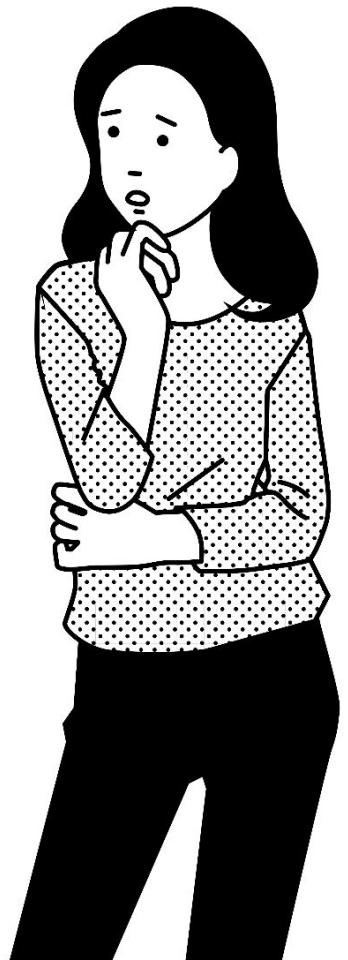


OPEN UP YOUR RESEARCH

With this game, you follow Emma on her way to her PhD and decide for her to either practice science the traditional way or to follow a more open approach. While this game is intended to make researchers aware of the Open Science practices that could be applied in one's research workflow, not all of these practices might be equally suitable for all disciplines. What is more, it is not always easy to decide which parts of the research workflow should be open as there are many other factors at play that influence one's decision, such as funder requirements. Nevertheless, the game will give you an (albeit sometimes simplified) overview of the kind of open science practices that exist.

START





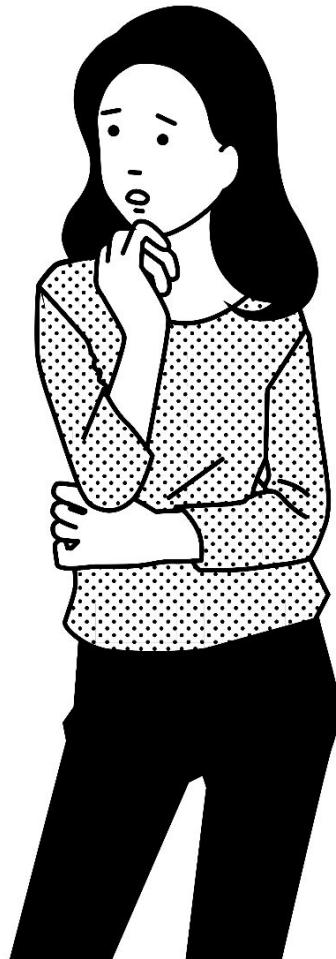
app.klicker.uzh.ch/join/lyj



**Use personal network
to access articles**

**Ask local librarian
for information**

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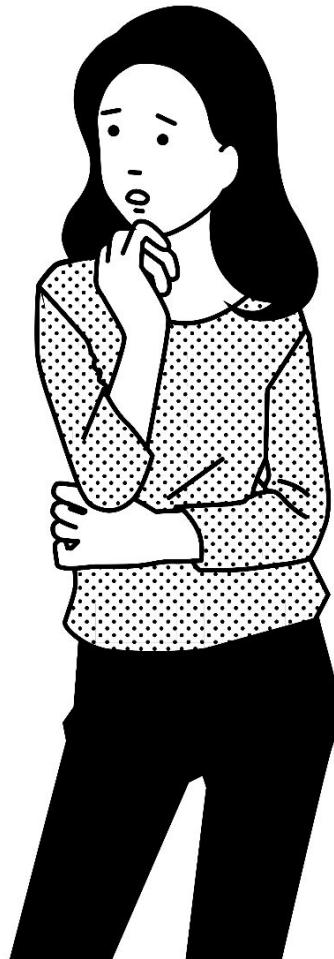
**Yes, do data
management planning**

**No data
management planning**



A data management plan describes how data will be generated, collected, analyzed, processed, stored and shared in the course of a research project.

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Yes, preregister

No preregistration

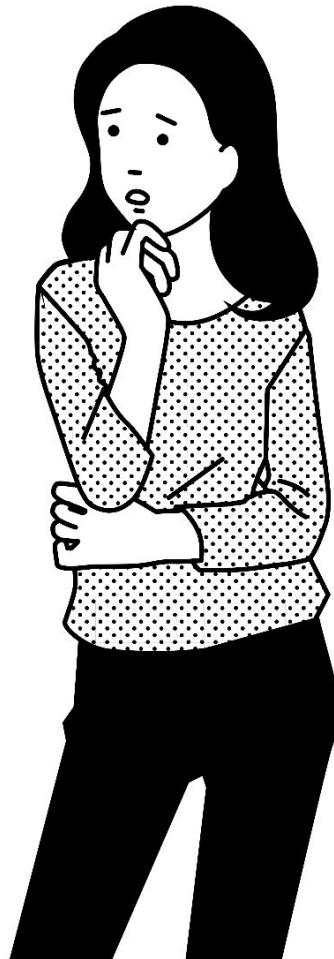
i

Preregistration is a detailed research plan (i.e. hypothesis, study design, and analyses) registered online prior to data collection. Preregistration aims for a transparent confirmatory test of formulated hypotheses. In contrast, research questions that are exploratory or data-driven may be less well suited for preregistration.



<https://www.flickr.com/photos/23868780@N00/7374874302>

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**Yes, make data
and code FAIR**

**No, do not make data
and code FAIR**



**Making your data and code FAIR, means that your data
and code – and other digital objects – are findable,
accessible, interoperable, and reusable.**

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Open Access journal

Traditional journal

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Open Access (OA) refers to the unrestricted public availability of a research paper via the formal publication system (gold OA) or via author self-archiving (green OA). Some journals charge article-processing-charges for gold OA publications while other journals are free to publish (diamond OA).

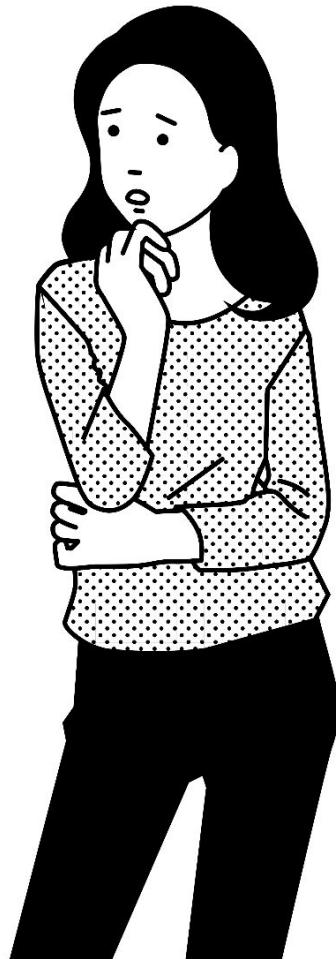
OPEN ACCESS JOURNAL

- Increased visibility
- Societal impact
- Could cost article-processing-charges (APCs)
- More citations
- Maybe quicker turnaround from submission to publication
- Lower prestige in the community?
- Funder requirement?

TRADITIONAL JOURNAL

- High prestige
- All good researchers publish there
- Would be good for my career
- Those researchers who I want to read my work will have access to it anyway
- Publication is (most likely) for free

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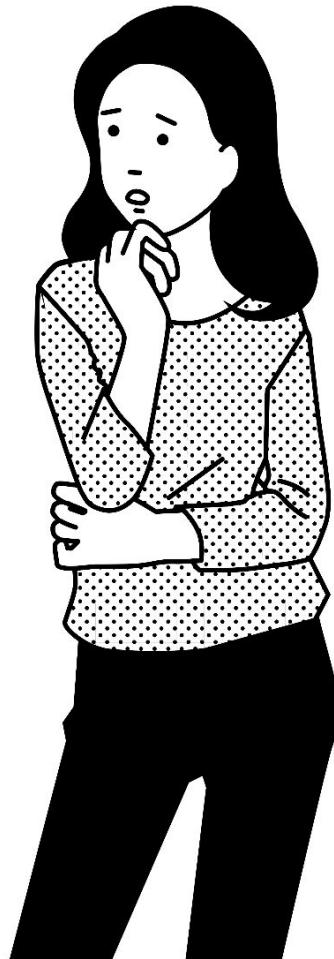
**Publish the data
and/or code**

**Do not publish the
data or the code**



Open data and/or code refers to the unrestricted public availability of data/code on the internet. Restrictions might apply in the case of personal or sensitive data. In some cases, only the metadata and not the data itself can be made available.

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<https://www.openscience.uzh.ch/de/moreopenscience/game.html>

Should Emma

1. Involve a librarian?
2. Write a data management plan?
3. Preregister her research plan?
4. Make her data FAIR?
5. Publish Open Access?
6. Publish data and/or code?

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