

# Open Science Guidelines

## Open Science Guidelines

Openness in science is key to fostering progress via transparency, reproducibility and replicability. While open access and open data are two fundamental pillars in open science, it is open data that builds the core for excellence in evidence-based research.

As an internationally renowned forum for researchers, practitioners, and educators to present and discuss the most recent innovations, trends, experiences, and challenges in the field of software engineering, ESEC/FSE 2019 has decided to actively support setting standards for how we conduct this kind of research.

To this end, we have explicitly committed ourselves for the first time to take the first step in fostering openness of our research outcomes. The steering principle is that all research output should be accessible to the public and that empirical studies should be reproducible.

In particular, we actively support to adopt open data and open source principles and encourage all contributing authors to disclose the (anonymized and curated) data to increase reproducibility and replicability.

## Open Data and Open Source

Fostering open data should be done as:

- Archived on preserved digital repositories such as [zenodo.org](https://zenodo.org), [figshare.com](https://figshare.com), or institutional repositories.
  - Personal or institutional websites, consumer cloud, or services such as Academia.edu and Researchgate.net are not archived and preserved digital repositories.
- Released under a proper open data license such as the [CC0](https://creativecommons.org/licenses/by/4.0/) dedication or the [CC-BY 4.0](https://creativecommons.org/licenses/by/4.0/) license when publishing the data.
  - Different open licenses, if mandated by institutions or regulations, are also permitted.

Upon submission, we ask authors to provide a supporting statement on the data availability in the submission system and as text in the submitted papers (ideally, in a subsection named *Data Availability* within the *Results* section).

**Please note that the success of the open science initiative depends on the willingness (and possibilities) of authors to disclose their data and that all submissions will undergo the same review process independent of whether or not they disclose their analysis code or data.**

We encourage authors to make data available upon submission (either privately or publicly) and especially upon acceptance (publicly).

A step-by-step approach to disclose data for (double blind) peer review and make it open data upon acceptance is available here: <https://ineed.coffee/5205/how-to-disclose-data-for-double-blind-review-and-make-it-archived-open-data-upon-acceptance/>

In any case, we ask authors who cannot disclose industrial or otherwise non-public data, for instance due to non-disclosure agreements, to please provide an explicit (short) statement in the paper (ideally, in a subsection named *Data Availability* within the *Results* section).

Similarly, we encourage authors to make their research software accessible as open source and citable, using the same process. Any acceptable open source license is encouraged.

## Open Access

We encourage ESEC/FSE 2019 authors to self-archive their pre- and postprints in open, preserved repositories. This is legal and allowed by all major publishers including ACM (granted in the copyright transfer agreement), and it lets anybody in the world reach your paper.

If the authors of your paper wish to do this, we recommend:

- Upon acceptance to ESEC/FSE 2019, revise your article according to the peers comments, generate a PDF version of it (postprint), and submit it to [arXiv.org](https://arxiv.org), which supports article versioning.

Note that you are not allowed to self-archive the PDF of the published article (that is, the publisher proof or the Digital Library version) per policy of the ACM.

A comprehensive FAQ for open access and self-archiving is available here: <https://avandeursen.com/2016/11/06/green-open-access-faq/>

## Support

In case of questions, please approach the Open Science Chair Daniel Graziotin (daniel DOT graziotin AT iste DOT uni-stuttgart DOT de) at any time. Contacting the open science chair does not violate double blind of submissions.