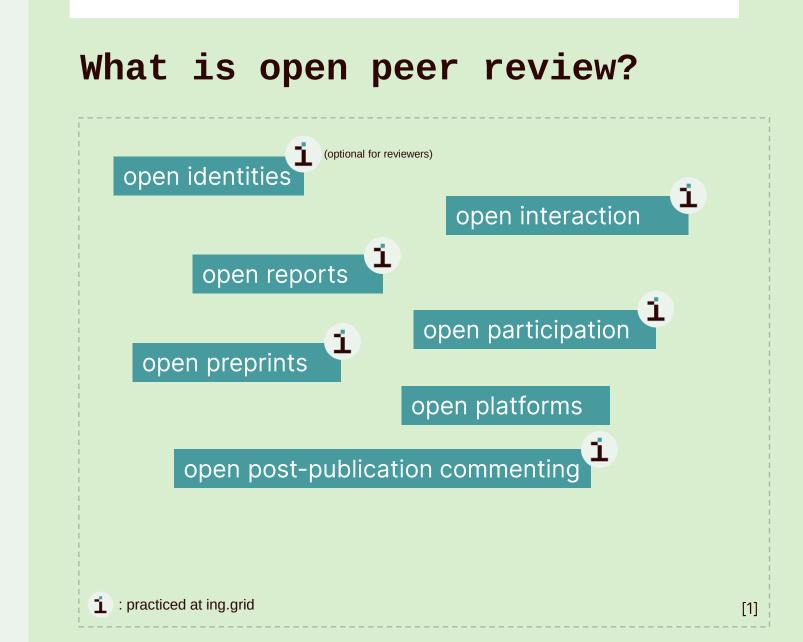
BRIDGING THE TROUBLED WATERS OF PEER REVIEW TOWARDS OPENNESS, FAIRNESS AND F.A.I.R.-NESS T. Logan [0000-0001-5512-2679], Michaela Leštáková [0000-0002-5998-6754], Agnes Kleinhans [0009-0003-7531-5891], Peter F. Pelz [0000-0002-0195-627X] Chair of Fluid Systems, Technische Universität Darmstadt, Germany E-Science Days 2025, Heidelberg

OPEN PEER REVIEW



Why open peer review?

Some benefits... [1-3]

- transparency
- better accountability
- uncovering bias
- honoring reviews and reviewers
- quality of feedback
- · discussion may contain interesting points for future research
- ... and some concerns
- pressure on reviewers
- bias towards the authors

Current status

- steady growth in OPR adoption since 2001
- OPR adoption is most prevalent in medical and scientific disciplines [4]
- five publishers are responsible for 81% of the identified OPR journals [4]



open reports

open participation

OUR EXPERIENCE



open reports welcome by all parties



reviewer identities usually disclosed



open participation possible but not used



speed of open peer review process low: avg of 41 weeks

F.A.I.R. PRINCIPLES AS GUIDELINES

Data, and its associated metadata, is easy for both humans and machines to find.

Datasets are assigned a DOI; Data are described with relevant metadata; Metadata contains the DOI of the dataset; Datasets are deposited in a searchable data repository (e.g., institutional repository, Zenodo).

Data, and its metadata, is retrievable via standardised protocols.

The DOI references a page, from which the dataset can be downloaded.

The data need to interoperate with applications or workflows for analysis, storage, and processing.

The dataset should be described by metadata using a formal, accessible, shared, and broadly applicable language for knowledge representation; If possible, (meta)data should use standardised vocabularies.

Data is both usable and reusable.

Datasets should be accurately described by metadata, documentation, license and version (The dataset is released with a clear and accessible data usage license; The metadata indicates a version number of the dataset and where possible provides provenance information); The datasets meet domain-relevant community standards of formal quality.

OUTLOOK



simplify integration of preprint server & journal

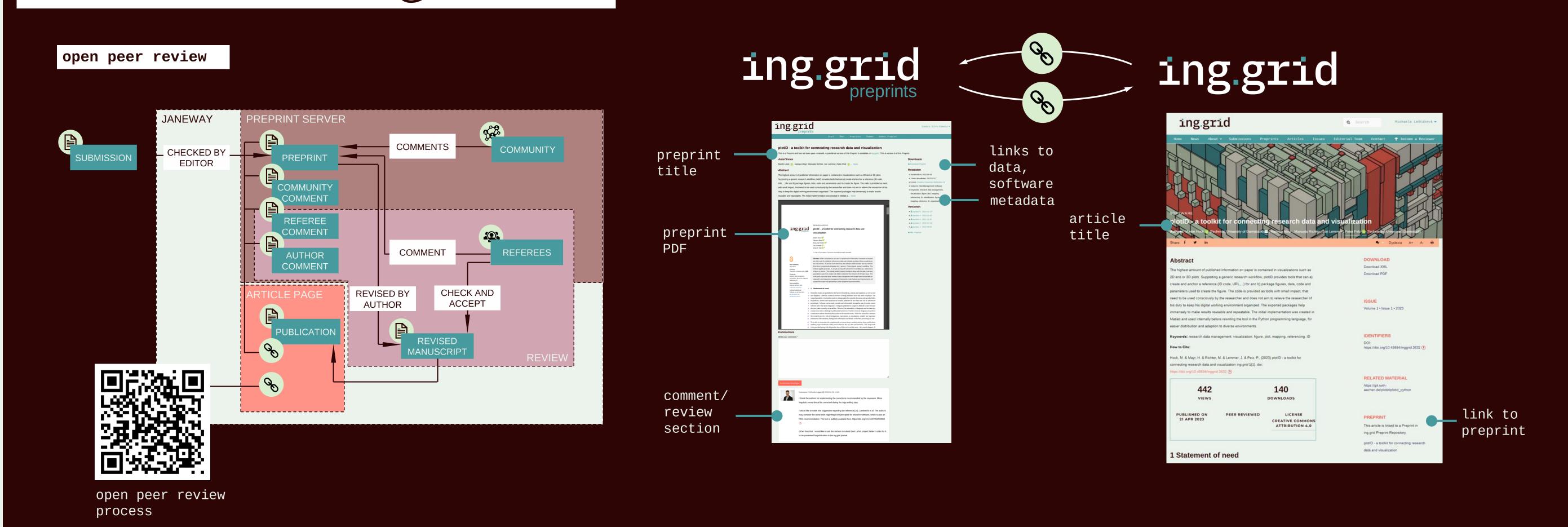


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speed up review process

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[3] Ross-Hellauer, T., Görögh, E. Guidelines for open peer review implementation. Res Integr Peer Rev 4, 4 (2019). https://doi.org/10.1186/s41073-019-0063-9 [4] Wolfram, D., Wang, P., Hembree, A. et al. Open peer review: promoting transparency in open science. Scientometrics 125, 1033–1051 (2020). https://doi.org/10.1007/s11192-020-03488-4







