



Cumulative advantage in open environments: risks and solutions

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Q. Might Open Science be at risk in some cases of reinforcing existing privileges or creating new ones?



The ON-MERRIT project

- H2020 project: October 2019 - March 2022
- Methods: Sociological, bibliometric and computational approaches
- <https://on-merrit.eu>

Objectives

- Examine issues of equity in Open Science, including its interfaces with industry and policy
- Ensure that Open Science & RRI interventions contribute to a more equitable scientific system



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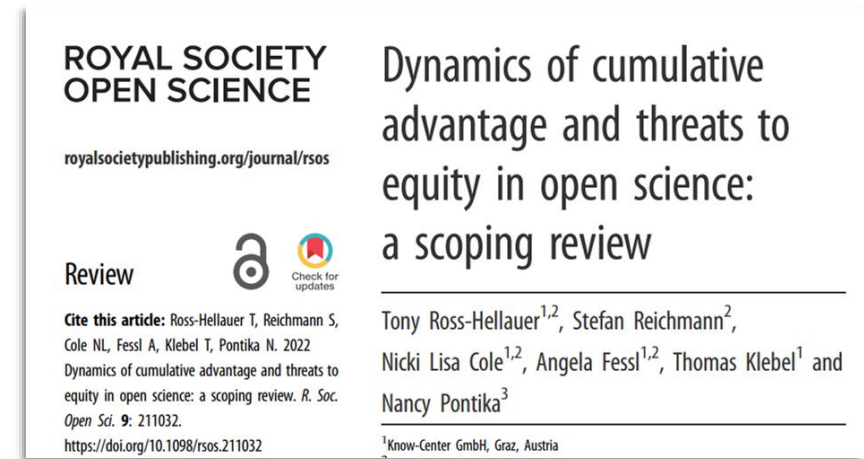




Scoping review

Synthesises **evidence and discourse** from **268 studies** about how dynamics and structures of inequality could persist or be exacerbated in the transition to Open Science

Ross-Hellauer, Reichmann, Cole, Fessler, **Klebel** & Pontika. 2022. Dynamics of cumulative advantage and threats to equity in open science: a scoping review. Royal Society Open Science. <http://doi.org/10.1098/rsos.211032>



Many (diverse) threats – for example:

- Costs of participation
- **Discriminatory OA APC business-model**
- Cumulative nature of data inequalities
- Platform-logic of Open Science
- **Lack of reward structures**
- **Exclusion of societal voices**

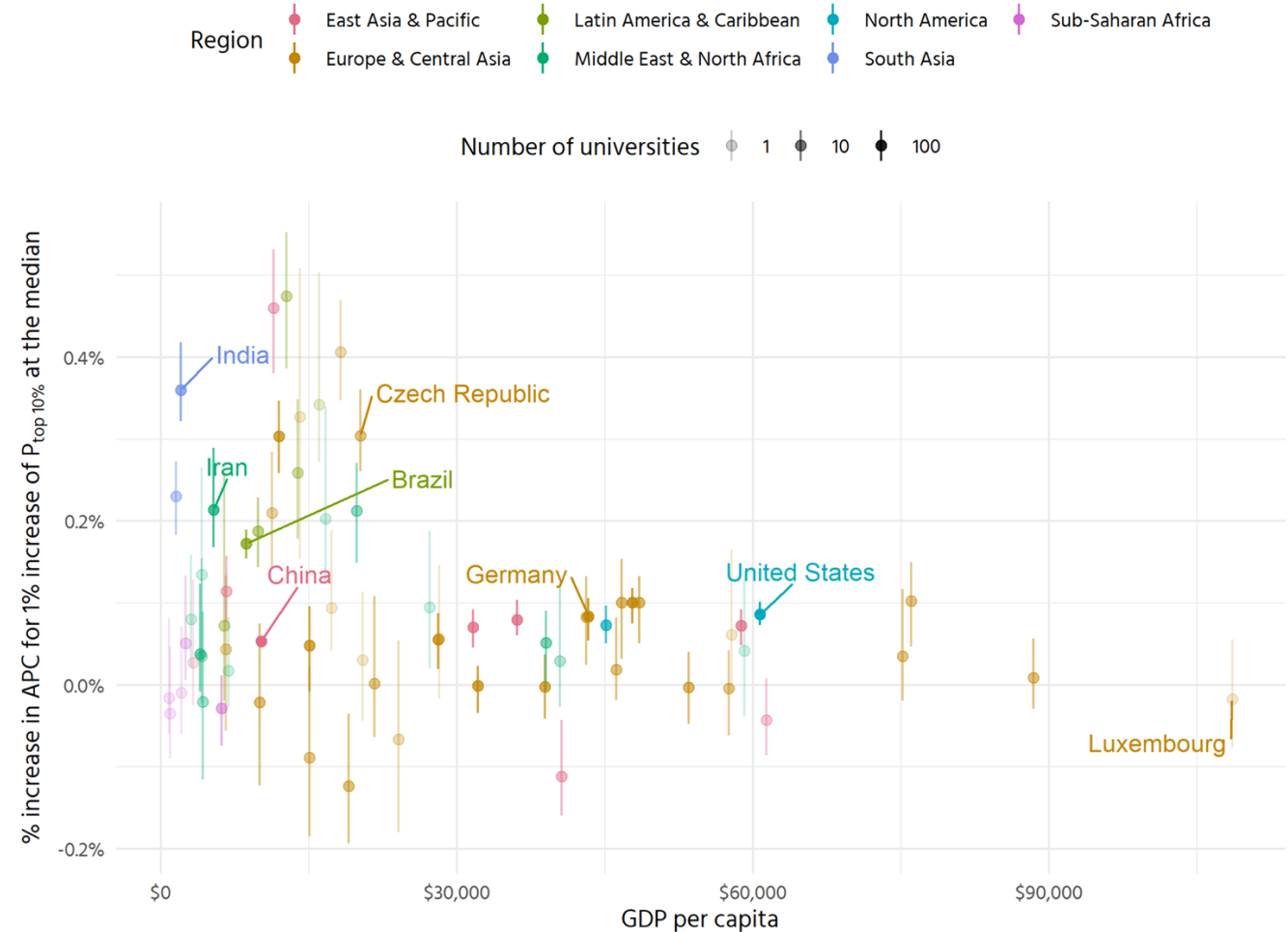


APCs and the stratification of OA publishing

Researchers from better resourced institutions publish more APC-based OA and pay higher APCs.

Influence of institutional resources on levels of APCs is stronger in lower-income countries.

OA publishing involving APCs is creating a new barrier for who can publish where



Klebel, T., Ross-Hellauer, T. (2023). The APC-Barrier and its effect on stratification in open access publishing. Quantitative Science Studies. Advance Publication. https://doi.org/10.1162/qss_a_00245





Reform of reward and recognition

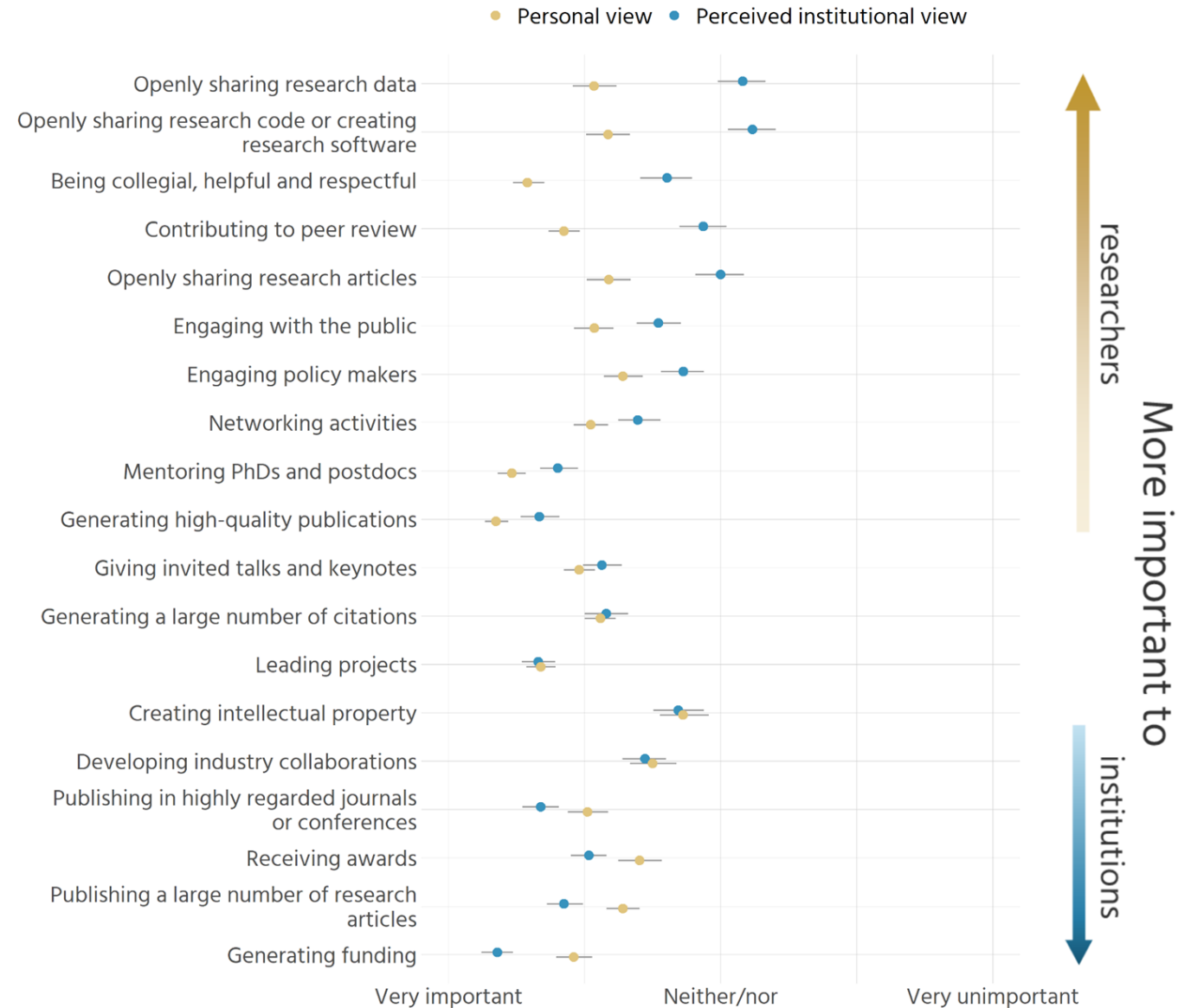
Study of 143 policy documents from 107 institutions on review, promotion, tenure criteria in seven countries

Criteria do not encourage open, responsible and reproducible practices

Survey among international researchers reveals dissonance between personal and institutional norms

Pontika, **Klebel**, Correia, Metzler, Knoth & **Ross-Hellauer**. 2023. Indicators of research quality, quantity, openness and responsibility in institutional review, promotion, and tenure policies across seven countries. *Quantitative Science Studies*. https://doi.org/10.1162/qss_a_00224

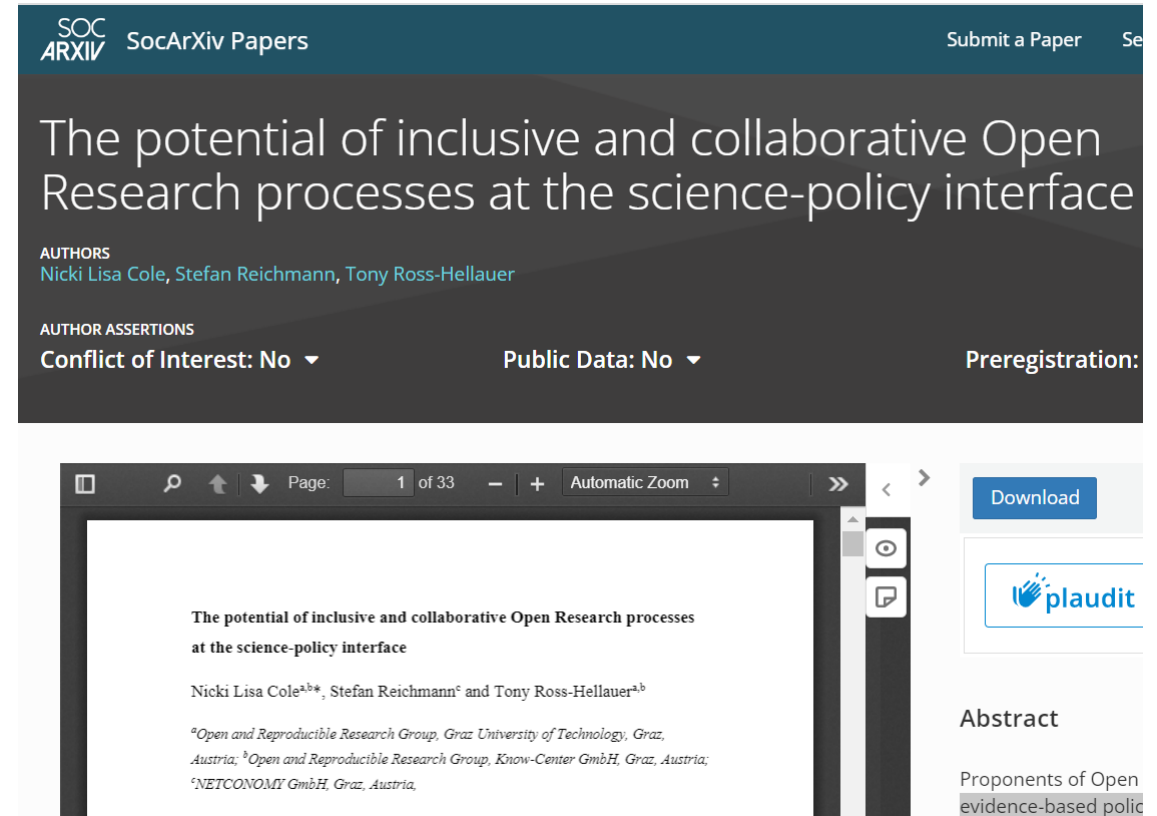
Ross-Hellauer, **Klebel**, Knoth & Pontika. 2023. Value dissonance in research(er) assessment: Individual and institutional priorities in review, promotion and tenure criteria. SocArXiv (preprint). <https://doi.org/10.31235/osf.io/dcr8v>





Inclusion at the Science-Policy Interface

- Qualitative study of researchers working at science-policy interface
- Found limited impact of Open Science so far
- Enabling access is not enough
- Need for Open Science to focus more on cognitive accessibility, upstream engagement and participatory methods



Cole, N. L., Reichmann, S., & **Ross-Hellauer**, T. (2023). The potential of inclusive and collaborative Open Research processes at the science-policy interface. SocArXiv (preprint). <https://doi.org/10.31235/osf.io/qzmf6>



ON-MERRIT Recommendations

Co-creative, modified Delphi process (anonymous surveys combined with online consensus-building meetings) with diverse experts from three stakeholder groups

Recently published in Royal Society Open Science

Cole, Reichmann and **Ross-Hellauer**. 2023.

Toward Equitable Open Research:

- Stakeholder Co-created Recommendations for
- Research Institutions, Funders and Researchers.

Royal Society Open Science.


- Societal inclusion in research and policy-making
- Reform of reward and recognition

**ROYAL SOCIETY
OPEN SCIENCE**

5,575

 views

3,730

 downloads

Global Thinking

ON-MERRIT recommendations
for maximising equity in open
and responsible research



<https://zenodo.org/record/6276753>



Thank you!

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