



Not wasting a good crisis in publication ethics and peer review

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crisis

noun

/'kraɪ.sɪs/

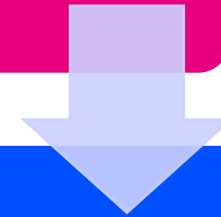
plural crises */'kraɪ.sɪːz/*

a time of great disagreement, confusion, or suffering

– Cambridge Dictionary

Crisis:

Editors couldn't handle increased volume
(1960s-1970s)



Solution:

Peer review

Crisis:

Medical research scandals (1940s-1970s)

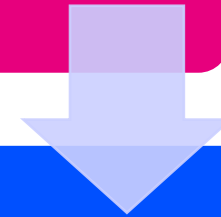


Solution:

Bioethics and medical ethics, e.g.,
Declaration of Helsinki, IRBs

Crisis:

Demarcation problem (1960s-1980s)
and the Science Wars (1990s)

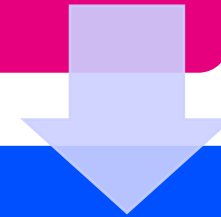


Solution:

Almost everyone lost interest

Crisis:

Serials crisis (1990s)

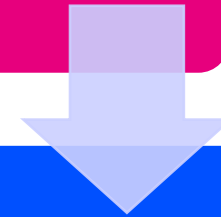


Solution:

Open access and Big Deals

Crisis:

Clinical trial / pharma industry failures (1990s-2000s)



Solution:

Trial registration,
reporting guidelines

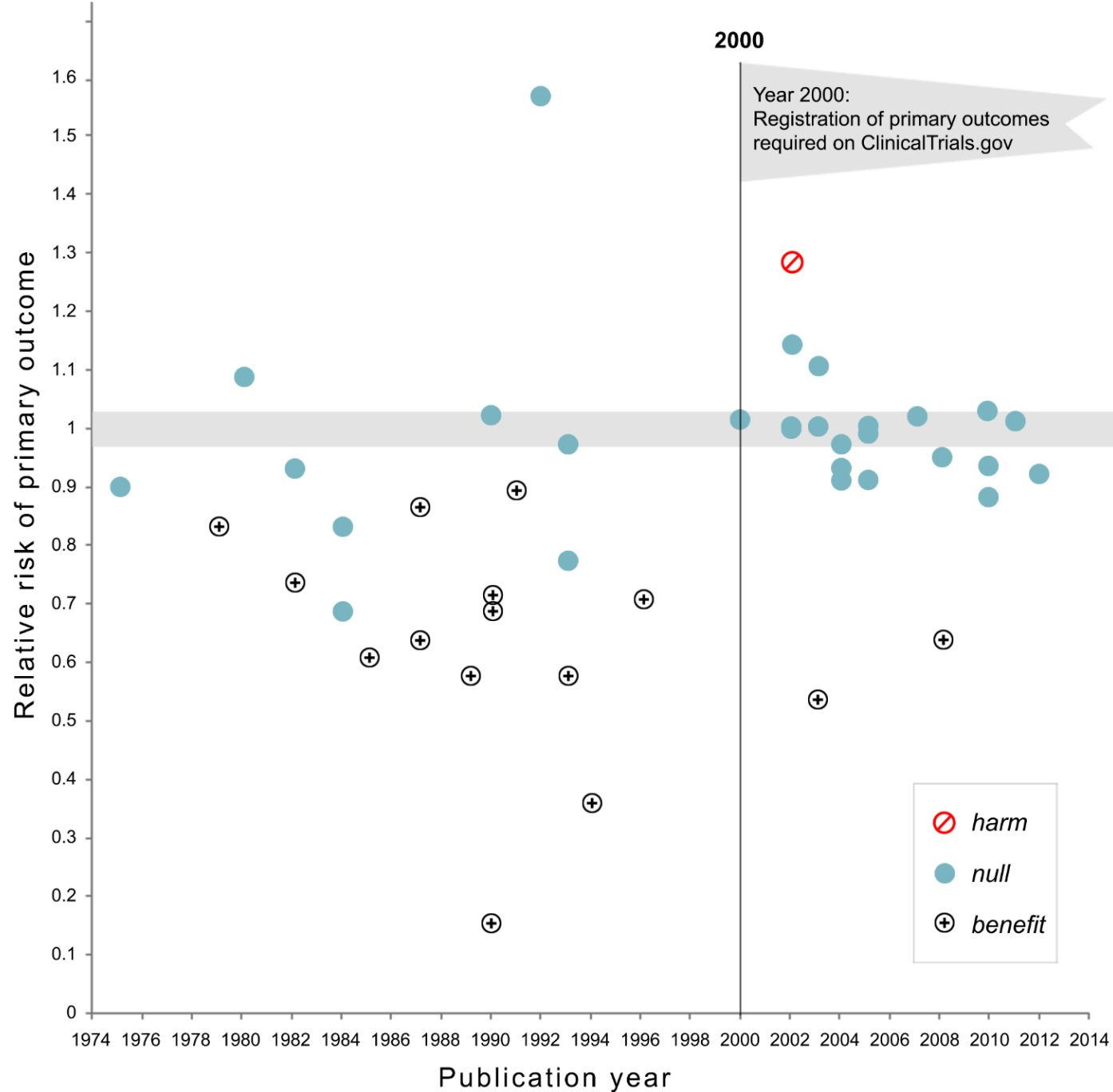
Crisis:

Replication crisis (2010s-present)



Solution:

Open science, metascience, negative results, pre-registration

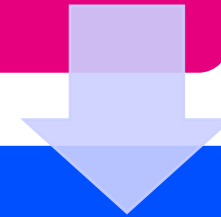


Kaplan RM, Irvin VL (2015) **Likelihood of Null Effects of Large NHLBI Clinical Trials Has Increased over Time.** *PLOS ONE* 10(8): e0132382
<https://doi.org/10.1371/journal.pone.0132382>

Crisis:

Publications ethics crisis

Peer review crisis



Solution:

???

“You don’t communicate with anyone purely on the rational facts or ethics of an issue. ... It is only when the other party is concerned or feels threatened that [they] will listen—in the arena of action, a threat or a crisis becomes almost a precondition to communication.”

– *Saul Alinsky, Rules for Radicals*

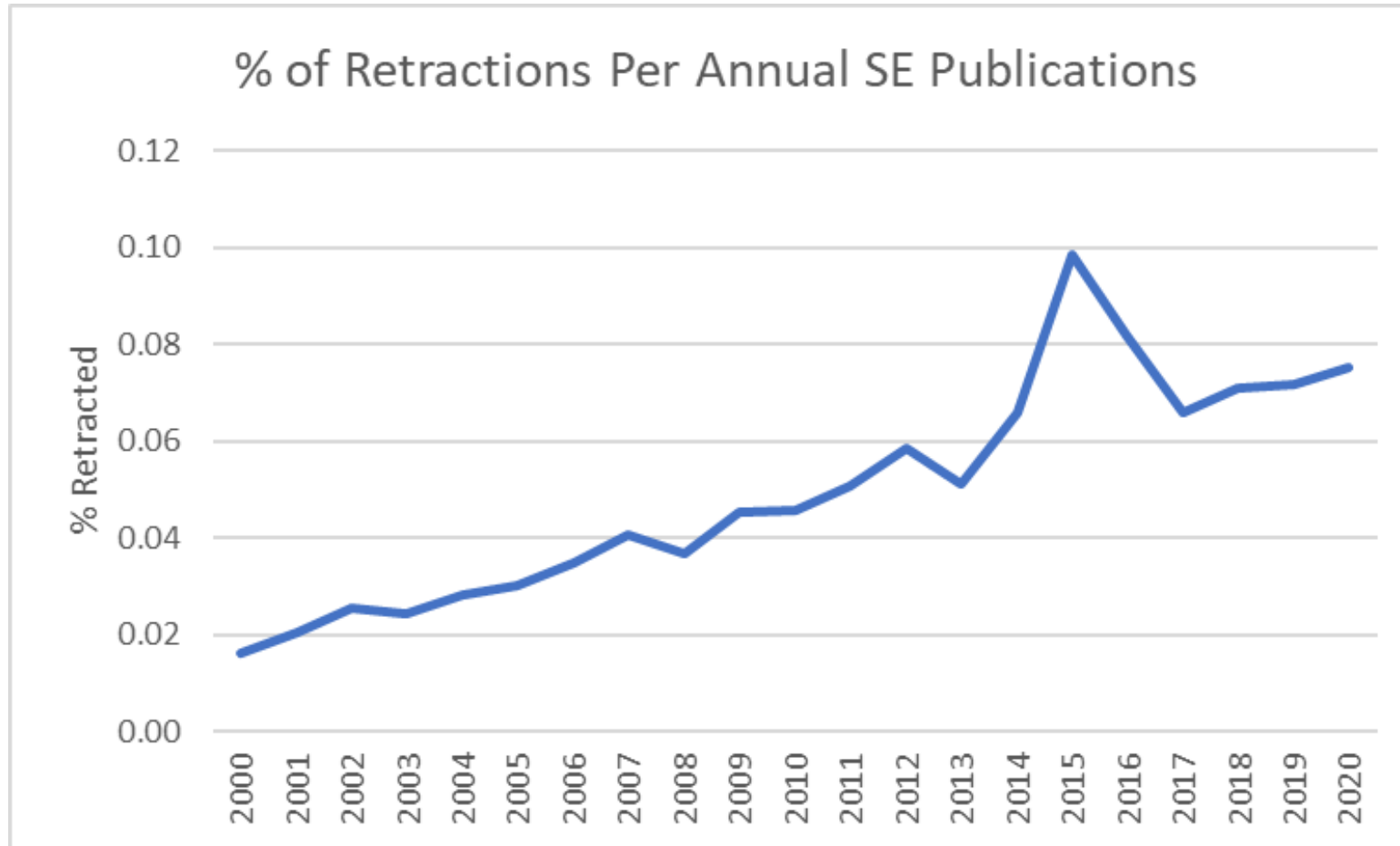


UKRIO graphical representation of research integrity based on the core areas described in *The Concordat to Support Research Integrity* 2019.

Publication ethics crisis

- Predatory journals
- Paper mills
 - Sale of authorship
 - Fake articles
- Peer review manipulation
 - Special issues and guest editors
- Citation manipulation
- Dual submission
- Large language models

Publication ethics crisis



“Retractions of a given year’s publications as a percentage of papers published in science and engineering. Retraction data from Retraction Watch Database, overall publication figures via U.S. NSF.”

retractionwatch.com/2022/12/27/nearing-5000-retractions-a-review-of-2022/

Publication ethics crisis

“The truth, however, is that the number of retractions in 2022 – 5,500 – is almost definitely a vast undercount of how much misconduct and fraud exists. **We estimate that at least 100,000 retractions should occur every year**; some scientists and science journalists think the number should be even higher. (To be sure, not every retraction is the result of misconduct; about one in five involve cases of honest error.)”

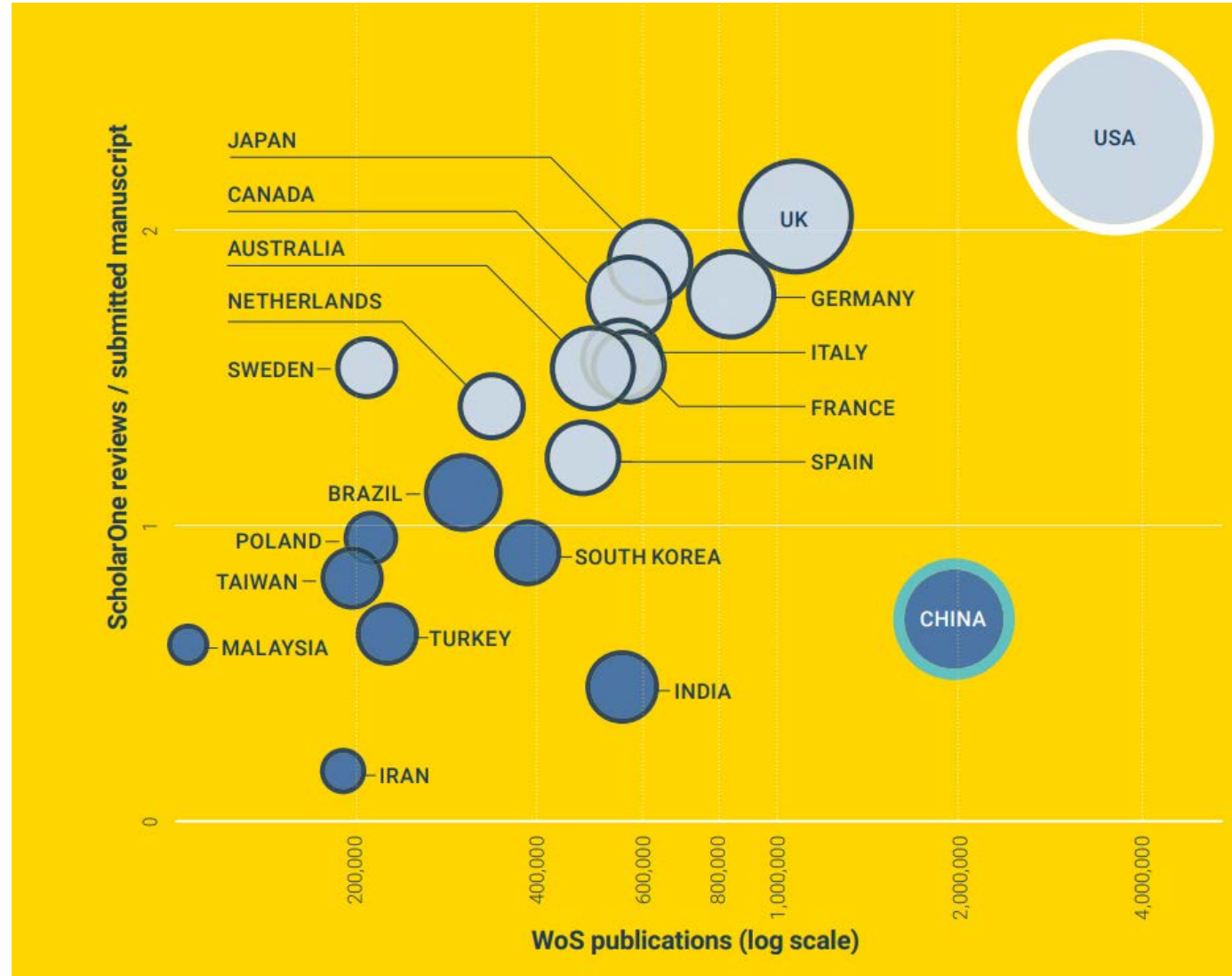
– Ivan Oranksy and Adam Marcus

theguardian.com/commentisfree/2023/aug/09/scientific-misconduct-retraction-watch

Peer review crisis

- Extremely difficult to find reviewers
- Over-reliance on automated tools
- Biased
 - Favours Global North
 - Favours prestigious authors and institutions
- Slow
- Ineffective?

Peer review crisis



Peer review crisis

“Together, the established regions have a completion rate of 49.5% compared with 56.6% for emerging regions.

...

This implies that low review rates in emerging regions are not because reviewers do not want to review, but because they are not being asked to review.”

Peer review crisis



Peer review crisis

	<u>Reviewers invited (v1)</u>	158
	Accepted	6
	Declined	51
	<u>Reports submitted</u>	1

Predatory Journals

“Predatory journals and publishers are entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices.”

Grudniewicz A, et al. **Predatory journals: no definition, no defence.** *Nature*. 2019;576(7786):210-212. [DOI:10.1038/d41586-019-03759-y](https://doi.org/10.1038/d41586-019-03759-y).

ThinkCheckSubmit.org

Predatory publishing discussion document doi.org/10.24318/cope.2019.3.6

Paper Mills

“Paper mills are the process by which manufactured manuscripts are submitted to a journal for a fee on behalf of researchers with the purpose of providing an easy publication for them, or to offer authorship for sale.

There is a pressure to publish for researchers and for some it is necessary to advance their career, and in some countries use of such services are perceived to be less unacceptable.”

Paper mills research, COPE & STM doi.org/10.24318/jtbG8IHL

AI as authors?

- No robots allowed!
- Don't list chatbots / LLMs / AI tools as an author
- Do declare use – but how can this be policed?

publicationethics.org/cope-position-statements/ai-author



Carrot or stick?

“Speak softly and carry a big stick; you will go far”
– Theodore Roosevelt

Publication ethics sticks

- Rejection
- Reporting to institutions
- Expressions of Concern and Retractions
- Watchlists and blocklists
- Name and shame
- Regulation

Peer review sticks

- Mandatory data sharing
- Sharing raw images
- Sharing ethics documents and protocols
- Mandatory reporting guidelines

EUROPE 1916

IMPACT



Brendan Robinson

Rotten carrots

Misapplied metrics:

- Impact Factor
- H-index
- Article counting
- Citation counting

New carrots?

- Payment for peer review
- Recognition for peer review
- Recognition for open science practices:
 - Data sharing
 - Pre-registration
 - Replication studies

“[C]risis alone is not enough. There must also be a basis, though it need be neither rational nor ultimately correct, for faith in the particular candidate chosen... if the paradigm is one destined to win its fight, the number and strength of the persuasive arguments in its favor will increase. More scientists will then be converted, and the exploration of the new paradigm will go on.”

– *Thomas Kuhn, The Structure of Scientific Revolutions*

Old paradigm: Competition

New paradigm? Collaboration

Reform research culture and assessment

Precurity and perverse incentives are a root cause of problems.

- Research culture in UK REF 2028

ukri.org/news/early-decisions-made-for-ref-2028/

- DORA sfdora.org
- CoARA coara.eu
- GraspOS graspos.eu
- INORMS Research Evaluation Group inorms.net/research-evaluation-group/

STM Integrity Hub

A New, Unified Approach to Safeguard Research Integrity

Imagine if academic publishers of all sizes, from all corners of the globe, pooled together to protect research integrity. Imagine if we banded together to share knowledge, innovations and data with a single mission: to safeguard the integrity of science.

Imagine what we could accomplish, together. We have. And we invite you to join us.

stm-assoc.org/stm-integrity-hub/

Investigate ‘breaches’ not ‘misconduct’

Should we be less British and more Australian when it comes to the use of the words *research misconduct*?

At the subscriber day of UKRIO’s annual conference this year (2023), we heard a thought-provoking presentation from [Dr Daniel Barr](#), Principal Research Integrity Advisor at RMIT University in Melbourne, Australia.

He said boldly that

“there is no research misconduct at RMIT”!

Initially, I thought *what*, how do they know for sure? Daniel explained that they don’t use the same language as us when it comes to investigating research misconduct.

At RMIT, concerns about research practice are described as **breaches** of the principles and responsibilities of research integrity. These are breaches of the principles of responsible research conduct set out in the [Australian Code for Responsible Conduct of Research 2018](#) (the Australian Code) and/or the [RMIT Research Policy](#).

ukrio.org/wp-content/uploads/Breaches-in-RI-2023.pdf

Abolish 'revise and resubmit'

"Extensive revising is required by most sociology journals. It is normative for authors to 'revise and resubmit' their manuscripts several times before they are accepted for publication, a process that is **time consuming, demoralizing, and stifling of creativity**. This essay discusses the potential benefits and drawbacks of abolishing the R&R as an option for journal editors."

sociologica.unibo.it/article/view/14685/14211

Recommendations to Enhance Partnerships Between Institutions and Journals to Address Concerns About Research Misconduct

- **Proper contacts at institutions and journals.** ...
- **What to share between institutions and journals:** RIOs and editors should adopt a **transparent, collaborative, and trustful approach** for handling issues of research misconduct and publication ethics. ...
- **Changes to the need-to-know criteria for institutions:** ... **earlier notification to the journal** to correct or retract incorrect published work can be done in a manner consistent with the confidentiality principles and regulations.
- **Separation of data validity vs culpability and intent:** correction of the research record at the earliest time possible ... can be accomplished by considering separation or uncoupling the issues of accuracy, validity, and veracity of the research record from the issues of culpability and intent of an individual.
- **Journal policy changes:** the implementation of comprehensive changes to journal policies ... Journals could also update their “Information for Authors” to include a **notice to the authors of the journal’s intent to contact an author’s institution** ...

Science reform movements

Publication ethics

Meta-Research

"Each in very different ways, the various [Communities of Practice] of the reform and open space pull the movement toward better science forward."

Sarahanne Field,
'Charting the constellation of science reform', 2022

Reproducibility

Digital Humanities

DEI

Sleuths

Research Assessment Reform

Old paradigm: 'Quality'

New paradigm? Transparency

Reforming peer review

- Preprints
- Focus on transparent reporting and data sharing
- Post-publication review
- Community peer review
- Open peer review
 - Double anonymised during review, with reviewer comments public if published and option to name to author/public if published

Regulation?



NO MOLLY-CODDLING HERE

Regulation?

“Our work on research misconduct ... will inform government thinking on **whether an additional body is required** for assurance. ... The UK does not have a national body that focuses solely on research misconduct. Our own work on poor research practice and research misconduct will build upon the UK Research Integrity Office’s 2023 review of the barriers to dealing with research misconduct. We are carrying out a full analysis and consultation about what **the best approach to oversight** might be for the UK, which we will report in 2025.”

– UKCORI work plan, 2023-2025

Regulation?

“One criticism regularly levelled at COPE is that we have ‘no teeth’. To be clear, **COPE is not a regulatory body**. COPE was not created for this purpose and we do not have the legal framework to be a regulatory body. As a membership organisation that is run by volunteers this cannot be what we do at COPE. ...**There is a clear need for national or global agencies with regulatory powers** to mandate adherence to research and publication ethical standards, but COPE is not such an agency. **We strongly welcome the formation of such a body**. Without it, maintaining the integrity of the literature remains a joint endeavour that requires trust and collaboration between researchers, journals, publishers, research institutions, funders and governments which may be at cross-purposes.”

– COPE in 2023



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