

July 27, 2021

Dear Members of the White House Office of Science and Technology Policy:

I am writing to you as a concerned researcher at the University of Illinois at Urbana-Champaign in response to the “Request for Information to Improve Federal Scientific Integrity Policies” (86 FR 34064, Document Number 2021-13640). I represent a working group for Reducing the Inadvertent Spread of Retracted Science (RISRS), which brings together diverse stakeholders in the academic publishing ecosystem to address the problems created by the continued citation of retracted research (see <https://infoqualitylab.org/projects/risrs2020/>). Retracted research is research that is withdrawn from the scientific record for reasons of error, misconduct, or fraud.

We welcome the White House Office of Science and Technology Policy (OSTP) initiative to improve the effectiveness of Federal scientific integrity policies to enhance public trust in science.

We encourage the OSTP to

- 1) develop mechanisms for assessing the integrity of reported research, when concerns are raised, that are distinct from processes to determine whether individual researchers have committed misconduct;¹ (Wager et al. 2021)**
- 2) codify best practices for federally funded databases and repositories in handling retracted research; and**
- 3) promote awareness of retraction issues as part of Responsible Conduct of Research (RCR) Education.**

We provide background on these three priorities below.

Current Problem: Retracted research continues to circulate without information about its invalidation. This threatens public trust in science and limits the utility of public data for innovators.

- Research circulates widely beyond expert communities due to electronic and networked research communication and data sharing and public access.
 - Since 2013, federal agencies with more than \$100 million in annual research and development expenditures have been directed to develop and implement plans for increasing public access to the results of the research they support.
- Increased public access includes a risk of exposure to retracted research that is not clearly marked as retracted.

¹ As recommended by the Working group on Cooperation & Liaison between Universities & Editors CLUE Report:

Wager, E., Kleinert, S., on behalf of the CLUE Working Group. et al. Cooperation & Liaison between Universities & Editors (CLUE): recommendations on best practice. Res Integr Peer Rev 6, 6 (2021). <https://doi.org/10.1186/s41073-021-00109-3>

- Professional scientists continue to cite retracted research (1) intentionally, to study it or comment on it; and (2) inadvertently, to use it without mention of retraction, which continues to spread retracted items. Since retracted items are derived from instances in which the scientific process or the integrity of scientific and technological information was compromised, their use may threaten the validity of new work.
- It is imperative that new forms of access to the results of research be accompanied by federal guidance and guidelines on best practices regarding retracted research and associated data.
- This has particular importance for data impacting human health studies and for federal agencies charged with promoting cost-effective evidence and science-based policy.
- There is a growing awareness of retracted research in the public, amongst the scientific community, and in the scientific publishing industry. Further guidance is needed on retractions in federally-funded and federally-disseminated scientific information.

Statement of Need: Access to publicly funded scientific information and data helps to leverage federal investments in research, innovation, and entrepreneurship. However, flawed research undermines the use of and confidence in this information and data. Policies designed to ensure the public’s ability to search, retrieve and utilize research and data lack clear guidance on how to identify, withdraw, or retract erroneous or outdated findings.

- As noted by the 2021 Cooperation & Liaison between Universities & Editors (CLUE) Report¹, “develop mechanisms for assessing the integrity of reported research (if concerns are raised) that are distinct from processes to determine whether individual researchers have committed misconduct”.
- Provide guidance and exemplar protocols indicating how agency repositories should mark items as retracted or withdrawn, with the reasons for retraction where possible.
 - Codify best practices for federally funded databases to facilitate the public and unrestricted access to and dissemination of retraction notices. Build off of existing databases that do this. At minimum, databases should feature APIs to track and disseminate retraction statuses.
 - Example: PubMed is a federally funded public database with an API that allows for unrestricted access to and dissemination of retraction notices, but only covers biomedicine.
- Promote awareness of retraction issues as part of Responsible Conduct of Research (RCR) Education topics in federal funding agency guidance. Provide guidance for understanding and working with the evolving landscape of post-publication amendments (e.g. editorial notes, corrections, and expressions of concern).
 - Encourage institutions to develop authorship guidance which emphasizes the need to correct publications (including retraction, if necessary), published

data sets, and other research products as an expectation of responsible research.

My RISRS colleagues and I would welcome further conversations on these priority areas.

Sincerely yours,

Jodi Schneider

Assistant Professor of Information Sciences

University of Illinois at Urbana-Champaign

501 E. Daniel St., MC-493

Champaign, IL 61820-6211

(217) 300-4328

jodi@illinois.edu

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