



U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY

Opening Statement

Chairwoman Eddie Bernice Johnson (D-TX)

Investigations & Oversight Subcommittee Hearing:
*Paper Mills and Research Misconduct: Facing the Challenges of Scientific
Publishing*
July 20, 2022

Good morning. Today's hearing will consider what seems to be a growing threat to the integrity of scientific publishing. The number of papers retracted in 2021 crossed 3,500, and volunteer sleuths find hundreds of cases of research misconduct each year.

I do not want to suggest that scientific journals are not paying attention to research misconduct. Quality control in paper submissions is a journal's bread and butter. Their reputations are a direct result of how successful they are in keeping fraudulent content out of print. But I also understand that if the goal is to keep 100% of fraud, fabrication, and plagiarism out of print, the odds are not in their favor.

With the dawn of foreign paper mills, the production of fraudulent content is now systematic. Language models powered by artificial intelligence are growing more sophisticated every day, making it easier than ever to produce fake content that looks authentic, or plagiarize real content so that it looks original.

As the methods of bad actors grow more powerful, we need to consider whether the scientific publishing enterprise is arming itself accordingly. Do journals have access to cost-effective, automated tools to assist with detecting misconduct before they even get to the peer review stage? Are there any automated tools that peer reviewers themselves can use to assist in their evaluation of original research? Are journals both motivated and equipped to investigate and adjudicate in a timely fashion any claims of misconduct that might be made about a paper that they have already published? Do journals always make it clear when an article has been retracted for misconduct, so that the influence of the offending science is curtailed appropriately?

Our hearing today is focused on scientific journals, which are privately managed and funded. Prevention and detection of misconduct in federally funded research is its own critical issue. But I want to underscore that because of how scientists lean on the other work of others, scientific integrity in privately-funded research is still a public good. Remember that in order to "see further" in his research, Sir Isaac Newton "stood on the shoulders of giants." Scientists use the published work of others to inform their own findings. Those other scientists are often halfway

around the world, trying to publish and get ahead in an environment that the United States doesn't control.

If fraudulent work from any nation is allowed to persist in the scientific literature, it can undermine the good faith efforts of honest researchers. It can even influence laws or the behavior of the public to disastrous effect. Consider the fraudulent Wakefield paper, first published in 1998, which suggested childhood vaccines cause autism. A savvy journalist raised alarms about the critical flaws in this paper in 2004, but it was not officially retracted until 2010. It wreaked untold harm on public health in the interim.

I commend the volunteers like Dr. Byrne and Dr. Stell for their dedication to integrity in the scholarly record. The work that you and your peers do is a true service to the public. I know that it is often done at great personal sacrifice. I also want to commend Mr. Graf and STM for acknowledging the threats to your industry and for pursuing some scalable tools to address it. I look forward to hearing today about how government can be a partner to you going forward.

I yield back.