

Researchers suggest better communication needed to convince public of findings

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A team of researchers from several institutions in the U.S. has published a Perspective piece in *Proceedings of the National Academy of Sciences* discussing the growing problem of acceptance of findings by scientists by the general public. They suggest several possible approaches that researchers could use to promote more effective signals of



trustworthiness to the public.

In this age of "fake news" it has been noted by the scientific community that the public has become more distrustful of news of any kind—including claims made by researchers when they publish scientific papers. They point out that the issue is not that researchers have begun making unsubstantiated claims, or that journals have become laxer in reviewing papers they publish. They suggest the real problem is that researchers are not making any extra effort to make sure the public knows that the papers they publish have been thoroughly peer-reviewed and vetted. They further suggest that failure to do so has left scientists vulnerable to public personas who wish to discredit their work based purely on personal or political reasons. They propose that what is needed is a better system for showing that scientists have continued to use standard practices meant to ensure the integrity of their work.

The researchers suggest a better system could include such things as badging, adding checklists, a more extensive withdrawal ontology, stronger verification of identity, better forward linking and perhaps most of all, greater transparency. "Badging" refers to symbols of integrity conferred by a third party. A familiar example would be the Good Housekeeping Seal of Approval—over time the public has come to trust the badge. Something similar could be very useful for scientific work. In a similar vein, checklists could be used to better outline not only the results of research but in describing how they were achieved. The researchers also suggest withdrawal ontology could be made more extensive by improving the means by which corrections are made or voluntary withdrawals from efforts occur and the reasons for them. They also suggest improving forward-linking would allow improved access to addenda. And they suggest public data archiving and the use of clear language to explain papers that have been withdrawn would also help to give the public more confidence that work being done by those in the scientific community truly is being done in ways that are both



respectable and ethical.

More information: Kathleen Hall Jamieson et al. Signaling the trustworthiness of science, *Proceedings of the National Academy of Sciences* (2019). DOI: 10.1073/pnas.1913039116

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