Guiding principles for institutions to aid responsible media reporting of research posted as preprints.

Part of the Preprints In The Public Eye project supported by the Open Society Foundations

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Guiding principles for institutions on interacting with the media about research posted as preprints

Definitions

**Preprint:** A form of scholarly communication that has been made publicly available by its authors. Most preprints are deposited on preprint servers and are generally permanently available. They are accompanied by metadata such as a list of authors and date of posting. Many preprint servers allow preprints to be versioned and some offer more advanced functions, like commenting, community endorsement, and direct submission of preprints to scholarly journals.

**Preprint server:** A digital archive for preprints.

Most preprint servers screen preprints for adherence to straightforward criteria before they are posted. While meeting these criteria is not an indication of scientific validity, posting a preprint on a preprint server can facilitate its scrutiny by the scientific community. The level of such scrutiny for a given preprint can vary from none at all to extensive impartial evaluation by a number of experts in the field; it can vary between preprints on the same server.

**Peer review:** The formal invited assessment of the scientific validity of a piece of research by independent experts in the field.

**Community review:** Public feedback on a preprint.

**Published:** In this document, ‘published’ refers to a version of work that is made publicly available in a journal after it has undergone peer review.
Introduction

Any document that looks like a scientific article can be disseminated publicly and could be used to inform other research, policies, reporting, or public behavior. Although there are benefits to this sharing of research, such as encouraging pre-publication peer discussion of the research, there are also real-world dangers if apparently scientific content is accepted without peer review or community review.

Importantly, the scientific appraisal of original research and its public availability are often uncoupled. It is in the interest of public trust to be transparent about when an article is known to have been assessed by experts and when this is not known.

Here, we present guiding principles for institutions, including press officers and others who support researchers to communicate their research findings, on the responsible communication of research posted as preprints.

This document is one of a set developed via the collective efforts of preprint servers, researchers, institutions, scientific journals, journalists, and science writers to encourage responsible science reporting and mutually complementary best practice across these fields.

Although the focus of these principles is on research posted as preprints, it is important to remember that peer review does not guarantee validity of the research and these principles are equally applicable to research published in peer reviewed journals.
Guiding principles for institutions on interacting with the media about research posted as preprints.

1. In general, institutions should avoid the active promotion of research in the media that has not undergone peer review such as that posted as preprints, except in rare and exceptional circumstances where the rapid dissemination of information is found to be critical to public health or safety*.

2. Where it is deemed that such circumstances exist.
   a. Public health and safety are paramount, and institutions should consider an internal process to evaluate the quality of the research and the benefits and risks of actively promoting it. Where there is no internal expertise, institutions should include consulting with external experts regarding the scientific quality of the research and the risks and benefits of promoting it, but this process should not be considered as peer review or an alternative to peer review. The vetting process might involve, for example, releasing a competing interest statement for authors, funding disclosures, the role of sponsors in the study design, establishing the provenance of datasets for clinical trial data, making the data publicly available when possible, and ensuring the protocol is available and registered.
   b. Institutions should consider the worst harms that can be anticipated to occur due to the public's: 1) accurate interpretation of the research later shown to be incorrect, or 2) inaccurate interpretations of the research later shown to be correct (to the extent specific misinterpretations appear predictable).
   c. The absence of peer review (where that is the case), the provisional nature of the findings and the potential for further revisions should be highlighted as part of its promotion.
   d. The limitations, as known by the authors, of any research should be highlighted as part of its promotion regardless of whether it has undergone peer review.

3. Institutions should consider providing guidance and support for researchers on communicating about their research (both on preprint servers and published in peer reviewed journals) on social media, with their peers, on blogs and with journalists. Examples of appropriate guidance are included in the Guiding principles for researchers to aid the responsible reporting of research posted as preprints document.

4. Institutions should be aware that many journals have policies on discussion of research findings in the media prior to publication. The TRANSPOSE database provides information on journal policies on peer review, co-reviewing, preprinting.

Related documents
   Guidelines from the KU Leuven Blog
   Science Media Centre guidance

Footnote: *It is the norm to promote in the media, research posted as preprints for some fields and institutions. Whether institutions should avoid actively promoting in the media research posted on preprints remains open for debate.