Creating gold standards for peer review
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Objectives
• Create a definition for the essential areas of peer review
• Define a set of standards for peer review
• Provide editorial offices with guidelines to improve their peer review process

Background
Peer review exists to serve the scientific and scholarly literature by assessing the quality of the way research is reported. It has, however, been shaped by historical constraints and interests, and it can be improved. Improving peer review will improve the scientific and scholarly literature.

We conducted a literature review for research on peer review and research integrity. This included looking at existing guidelines and standards for peer review and editorial practices.

After reviewing the literature, we defined five essential areas of peer review.

• Integrity: peer review establishes that the work is reliable and potentially reproducible
• Ethics: peer review establishes that the work was conducted ethically
• Fairness: peer review is objective and impartial
• Usefulness: peer review is constructive and helpful
• Timeliness: peer review provides timely feedback for authors

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Methods

Case studies
• We created a Google Form to obtain data on examples of peer review being ‘done well’.
• A link to the form was advertised on Wiley’s public-facing Exchanges blog and circulated to Wiley colleagues.
• We received 40 case studies from editorial office colleagues and journal editors.
• The case studies came from journals across the globe and represent diverse subject areas.

We devised a checklist of recommended actions for journal teams to implement to help them achieve better standards of peer review in the five essential areas. Our full recommendations are given in our preprint at https://osf.io/4mfk2/.

Here we give an example from each section:
• Integrity: Editors should ensure the journal’s standards for article acceptance are transparent to authors and reviewers.
• Ethics: Journal teams should use software to check for plagiarism.
• Fairness: Articles should include a list of each individual’s contribution to the work.
• Usefulness: User-friendly author guidelines should be easily accessible so that manuscripts are in the best possible format to reap the full benefits of the peer review process.
• Timeliness: Journal teams should take active steps to improve timeliness through regular audits of their workflow.

Next steps
• We will develop and promote our checklist to help journals audit their performance and we will use this work to underpin our peer review philosophy at Wiley.
• We intend to create badges to show authors and readers how a journal is performing and to help journals pursue good practice in each area.
• We will continue to garner feedback from journal staff so our thinking will evolve to meet evolving practices within research communities.

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