



Description

The [peer review](#) process was developed to help journal editors decide which manuscripts deemed suitable for publishing. Eventually, the process evolved and transitioned from its initial unidirectional purpose of assessing papers for accuracy to evaluating papers with an intent to uphold the integrity of research study before publication.

Today, the peer review process is at the helm of ensuring that a scientific manuscript is experimentally and ethically correct. Furthermore, it determines which papers meet a journal's standard of quality and confirms originality before publication.

It is now a practice by most credible scientific research journals and plays an imperative role in determining the credibility and quality of submitted work.

Learn more about the lesser known facts about the evolution of the peer review process.

(Click [here](#) to download the infographic)

Peer Review Through Ages!
A BRIEF HISTORY OF PEER REVIEW

Peer Review ensures that the papers published in scientific journals address meaningful research questions and draw conclusions based on ethically executed experiments.

Inception in ancient Greek culture
The peer review process, although not in its current form, was used as early as in the 5th century BCE in Greece.

854-941 CE
First described by a physician
The first formal process related to peer review was described by the physician, Ibn Sina.

IN 1455
Invention of printing press
With the invention of the printing press, printed documents were now available to a wider audience, including scientists and researchers.

IN 1620
First universal method for publishing
In Francis Bacon's work, *Novum Organum*, he proposed a method for generating and assessing new science.

IN 1665
Publishing research
The Royal Society of London published the first scientific journal, *Philosophical Transactions*, in 1665.

The Royal Society of Edinburgh published in their *Medical Essays and Observations* letter to their members, *Request for the Review of Observations*. The report of their identity in 1702.

1665-1731
Evolution of the peer review process
Manuscripts were distributed to reviewers with the intent to study before publication.

1752
Publishing
The Royal Society of London adopted the practice of peer review for the first time. The process of peer review was to review the work of the author before it was published in the journal.

1940
Peer review became a standard practice
Peer review in the form we know today was developed and formalized in the 1940s and has since become a standard practice in the field of research.

Today

New peer review models are introduced
The need for new models is increasing as the volume of research grows and the need for faster publication cycles increases.

1. Pre-publication peer review model
Manuscripts are submitted to a journal editor, who corresponds with the author to ensure the work meets the journal's standards and ethical requirements.

2. Open and/or post-publication peer review
Manuscripts are published online and are available to a wider audience. Reviewers can provide feedback on the work, and the author can respond to the feedback.

3. High volume peer review
The volume of research is increasing, and the need for faster publication cycles is growing. High volume peer review allows for a larger number of manuscripts to be reviewed and published more quickly.

4. Independent peer review
A new model of peer review is emerging, where reviewers are independent of the journal and provide feedback on the work. This model allows for a more transparent and unbiased review process.

Through the advancement of science, the need for peer reviewers has grown. Their service to knowledge has helped science move forward. A surge in AI-based tools and AI-based ethical review is heading towards becoming a process that is more efficient, saving the quality and integrity of research.

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- 1. Infographic
- 2. Reporting Research

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