

## The Gatekeeping Role of Editors in Peer Review against Academic Misconduct in the Information Age (Postprint)

**Authors:** Qi Xiaosheng, Zeng Ling

**Date:** 2023-10-08T00:00:00+00:00

### Abstract

In the current era of rapid information dissemination, the development of the information age offers opportunities while simultaneously presenting challenges. As a major trend in contemporary development, informatization represents advanced productive forces, and the transformation of information transmission modes has imposed higher demands on editors' personal qualities and professional capabilities. As the final gatekeepers, journal editors should also enhance the screening and oversight of academic misconduct in papers during the peer-review process. Based on this, this paper analyzes from three dimensions—the review stage, editing and proofreading stage, and publication stage—how editors in the information age can utilize big data retrieval, online submission and peer-review systems, and other technological means to play an effective role in eradicating academic misconduct.

### Full Text

## The Role of Editors in Gatekeeping Against Academic Misconduct During Peer Review in the Information Age

Qi Xiaosheng, Zeng Ling

### Abstract

In the era of rapid information dissemination, the development of the information age presents both opportunities and challenges. Informatization represents a major trend in contemporary development and signifies advanced productive forces. The changing forms of information dissemination impose higher demands on editors' personal competencies and capabilities. As the final gatekeepers,

journal editors should strengthen their screening and gatekeeping against academic misconduct in manuscripts during the peer review process. Based on this perspective, this article explores how editors can leverage big data retrieval and online submission systems to combat academic misconduct from three aspects: the review stage, the editing and proofreading stage, and the publication stage.

**Keywords:** Information Age; Editors; Peer Review Process; Academic Misconduct

## Introduction

With the rapid dissemination of information, Chinese scholars have increasingly emphasized the importance of addressing academic misconduct. It is crucial for editors to detect such phenomena during peer review. At the 13th China Science and Technology Journals Development Forum, Academician Zhu Bangfen of the Chinese Academy of Sciences described the current state of research integrity in China using two “unprecedented” characterizations: first, the breadth and severity of research integrity issues are unprecedented; second, the attention from all sectors of society toward research integrity is unprecedented. He noted that “science and technology journals can make significant contributions to safeguarding research integrity construction” [1]. Accordingly, editors should also play a gatekeeping role in identifying academic misconduct during the review process.

## The Review Stage

### Plagiarism Detection Software

Currently available plagiarism detection software in China includes the CNKI Academic Misconduct Literature Detection System, Wanfang Data’s Paper Similarity Detection, and VIP’s Paper Detection System. These systems can detect simple forms of academic misconduct such as plagiarism, excessive citation, and duplicate publication through big data analysis. Research has shown that manuscripts may not exhibit such misconduct at the time of submission, but due to the time lag between peer review and publication, re-checking before publication may reveal academic misconduct [2]. Therefore, *Chongqing Medicine* employs text similarity detection at three stages: initial submission, each revision, and pre-publication, thereby eliminating simple forms of academic misconduct.

### Manual Retrieval and Verification

While Baidu Academic is currently used for automated retrieval to identify deeper forms of academic misconduct, computer software remains limited in detecting sophisticated misconduct, including cases where authors have technically manipulated plagiarized content. In such instances, editors must conduct in-depth comparisons and reverse analysis to uncover violations. For manuscripts flagged as suspicious based on submitter information, editors should perform

manual searches using CNKI's professional or advanced search functions to compare titles, abstracts, and other elements with relevant literature. Simultaneously, editors should investigate the author's previous research directions and the past scientific achievements of their affiliated institution to detect sophisticated academic misconduct.

### Submission Information Verification

Discrepancies between submitter and author information warrant particular vigilance. If multiple papers are submitted from the same email address, within the same timeframe, by the same person, and cover diverse specialties and fields, third-party submission services can be inferred. Additionally, incomplete submission information—including missing author names or affiliations [4]—and requests to add author information only after manuscript approval should raise concerns about the manuscript's origin. Editors should regularly analyze submission system data, including daily submission volumes, geographic distributions, institutional sources, and author email addresses. Fluctuations in submission volume on particular days require attention. For instance, if a single submission email address submits multiple papers within several days, editors must carefully verify manuscript content, author affiliations, and subject areas to screen for third-party submissions.

### Peer Review Process

The peer reviewer database requires regular investigation and maintenance by editors. Some experts may be inactive or lack rigor in their reviews, necessitating database updates and the inclusion of qualified reviewers to establish a dynamic expert database. To address this issue, *Chongqing Medicine*, as a comprehensive medical journal, assigns editors to specific disciplines, with each editor responsible for different subject areas. This approach transforms general editors into disciplinary editors, enabling them to better understand reviewers' research fields and assign manuscripts more accurately. This allows reviewers to better grasp the research content and more readily identify sophisticated academic misconduct. Manuscripts that pass peer review must also undergo a final editorial meeting. *Chongqing Medicine* holds monthly finalization meetings chaired by the responsible editor-in-chief, where over a dozen multidisciplinary experts collectively gatekeep manuscripts. These meetings discuss academic value, innovation, practicality, publication sections, and revision suggestions, eliminating manuscripts that exhibit academic misconduct, lack innovation, or have no reference value.

### Proofreading and Notification

Authors should be required to provide contact information for all contributors during submission. When sending final proofs to authors, all contributors should be copied on the email so that every listed author can verify the manuscript.

This proofreading notification process, particularly to first and corresponding authors, facilitates editors' verification of authorship authenticity and screens against inappropriate attribution.

## Post-Publication Measures

### Handling Post-Publication Misconduct

Post-publication cases of academic misconduct also require established regulations. *Chongqing Medicine* imposes severe penalties on authors who engage in duplicate submission, redundant publication, or academic misconduct, with serious cases resulting in further accountability. The journal has also proposed processing recommendations for misconduct involving conflicts of interest in medical publishing [7]. Currently, most journals simply delete the original article from databases when post-publication misconduct is discovered. However, this approach neither warns the author nor alerts readers. Therefore, post-publication handling methods—such as publishing retraction notices, correction statements, or linking to the original article—require joint exploration by the journal community and major databases to effectively address academic misconduct at the terminal stage.

### Education and Publicity on Academic Misconduct

In recent years, the increasing number of retractions in academia reflects, from a positive perspective, China's growing emphasis on research integrity. This presents an opportunity to strengthen research integrity education among research institutions and personnel. Currently, many researchers still lack awareness of academic misconduct [8], such as excessive citation of references. In response, *Chongqing Medicine* has repeatedly organized lectures for clinical medical researchers, such as "Research Integrity Issues in Medical Research." These educational initiatives cover case analyses of academic misconduct, authorship attribution, medical ethics, conflicts of interest, and clinical trial registration, aiming to raise researchers' awareness of academic misconduct and reduce its occurrence at the source.

## Conclusion and Recommendations

The information and information technology revolution is decisively shaping the direction of social transformation in unprecedented ways. As disseminators of academic achievements, journals bear an undeniable responsibility for research integrity. Beyond post-hoc standardized handling, pre-publication rigorous screening is also essential. In this era of rapid information dissemination, journal editors, as the final gatekeepers, should strengthen their screening and gatekeeping against academic misconduct during peer review.

Regarding changes to author affiliations or information after acceptance: (1) It is not recommended to change the affiliation of a thesis written during gradu-

ate studies to the author's current workplace, as the copyright belongs to the original institution. Instead, a note can be added to the author biography, such as "The author is currently employed at X institution." The same principle applies to cases where authors wish to change affiliations due to job transfers. (2) If an author wishes to add someone who was not originally listed as an author, a written explanation must be provided. If the reasons are sufficient and meet the following four authorship criteria recommended by the International Committee of Medical Journal Editors (ICMJE) [5]: making substantial contributions to the study conception or design, or to data acquisition, analysis, or interpretation; drafting the manuscript or revising it critically for important intellectual content; approving the final version to be published; and agreeing to be accountable for all aspects of the work to ensure that questions related to the accuracy or integrity of any part are appropriately investigated and resolved. This can be processed according to the Committee on Publication Ethics (COPE) recommended flowchart for "Changes in Authorship (a) Corresponding Author Requests Addition of Extra Author Before Publication" [6]. To avoid authorship disputes, authors should be required to provide an author contribution statement at the time of submission, with an updated statement required if any changes occur.

**Funding:** 2017 Chongqing Society of Scientific and Technical Periodicals Editorial Research Fund Project (CQKJB201703).

## References

- [1] Zhao R. Science and technology journals can make significant contributions to safeguarding research integrity construction [OL]. (2017-10-9) [2017-09-25]. [https://mp.weixin.qq.com/s?\\_\\_biz=MzA4OTI3MjM4MA==&mid=2649125480&idx=1&sn=2c62caaa6049](https://mp.weixin.qq.com/s?__biz=MzA4OTI3MjM4MA==&mid=2649125480&idx=1&sn=2c62caaa6049)
- [2] Zeng L, Xu CP, Wu KM. Analysis of secondary plagiarism detection results for manuscripts to be published in *Chongqing Medicine* [J]. *Chongqing Medicine*, 2013, 42(29): 3476-3478.
- [3] Zhu YZ. Strengthening academic quality judgment during peer review using literature databases [J]. *Chinese Journal of Scientific and Technical Periodicals*, 2017, 28(7): 669-674.
- [4] Zhang W, Wang QJ, Deng QT, et al. Investigation and ethical discussion of inappropriate author affiliation attribution in medical papers [J]. *Chinese Journal of Scientific and Technical Periodicals*, 2017, 28(4): 306-311.
- [5] Zhou QH, Chen HY, Huang N. Recommendations for the conduct, reporting, editing, and publication of scholarly work in medical journals [J]. *Journal of Integrative Medicine*, 2017, 12(3).
- [6] COPE. Flowchart for "Changes in Authorship (a) Corresponding Author Requests Addition of Extra Author Before Publication" [EB/OL]. [2017-8-28]. [https://publicationethics.org/files/Full%20set%20of%20flowcharts%20%28CHI%29\\_{02}.pdf](https://publicationethics.org/files/Full%20set%20of%20flowcharts%20%28CHI%29_{02}.pdf).
- [7] Zeng L, Wang MF, Liao ZY. Discussion on handling methods for conflicts

of interest in foreign medical journals [J]. *Chinese Journal of Scientific and Technical Periodicals*, 2017, 28(7).

[8] Xu HL. Academic misconduct and its preventive measures [J]. *Chinese Journal of Scientific and Technical Periodicals*, 2015, 26(6): 545-551.

**(Author Affiliation: Editorial Office of *Chongqing Medicine*,  
Chongqing Health Information Center)**

*Note: Figure translations are in progress. See original paper for figures.*

*Source: ChinaXiv — Machine translation. Verify with original.*