Strategies for Editors to Prevent Academic Misconduct

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Abstract—**All kinds of academic misconduct has seriously damaged the fair and just academic atmosphere of scientific research. Journal editors should play the role of observer and gatekeepers in the process of displaying and disseminating academic achievements, and are duty-bound to defend academic integrity. Based on the principle of prevention in advance, supervision in process and punishment afterwards, this paper puts forward the specific measures for journal editors to prevent academic misconduct from three aspects: editing and reviewing process, reviewing software and punishment strategies, so as to effectively curb academic misconduct in academic publishing.**

Keywords: academic integrity, academic misconduct, journal editors

I. INTRODUCTION

Academic journal is an important carrier for publishing scientific research achievements, and also an important window for academic achievements to obtain recognition and attention. However, due to the promotion of professional title, degree application, project completion and scientific research pressure, etc., the phenomenon of academic misconduct such as stealing and plagiarizing others' achievements, adding names and projects willfully in a hurry appears frequently. Academic journals publish these papers of academic misconduct, not only destroying the academic order and academic ethics, and putting the real scholars in an unfair competition environment, but also allowing such papers taking up the limited space of journals, which makes the value of academic journals questioned. Academic journals should resolutely resist academic misconduct. In the aspect of resisting academic misconduct, many journal editors and related researchers have carried out research and discussion in combination with practice, and put forward a variety of methods and solutions. Although there are different emphases, it is generally accepted that journals should take "prevention" as the main measure to prevent academic misconduct and "punishment" as the supplement; measures to resist academic misconduct should run through every link of editorial work to minimize the negative impact of academic misconduct.

II. PREVENTION IN ADVANCE — FORMULATION AND GRASP OF SUBMISSION STATEMENT AND GIST OF PRIMARY REVIEW

A. Specifying submission requirements

The journal should convey its attitude towards academic misconduct to authors through its website and submission platform. It should be clearly pointed out in the "Instructions for Authors" that the manuscript should the original manuscript and has not been published in public publications in China and abroad. In addition, this print does not accept any translated copy from any language. The manuscript belongs to the author's own creative labor. If the author quotes or refers to other people's discussions, data and results, he or she should check the literature information and clearly mark it in the paper [1]. The journal can interact with the author on the website, answer their questions online, and set up the common sense section of some related content of academic misconduct in journals. Such content as what constitutes self-plagiarism, what does not constitute self-plagiarism and so on can be presented. The journal's attitude towards academic misconduct and punishment measures should be stated in the guidelines for submission, and the standards to be followed and the responsibilities and obligations to be undertaken by the authors should be clarified.

B. Establishing the copyright system

In the "submission statement", it should be stated that all the authors of the paper should have no objection to the submitted journal, the content of the paper and the order of the signature; the author shall not add or delete an author or change the order of the authors without authorization; there should be no copy, plagiarism, repeated publication and other academic misconduct. In the "submission statement" and "copyright transfer agreement", the copyright authorization letter signed by all the authors should be required, and the author should be required to provide proof of the authenticity and validity of the data, and no multiple contributions. It is also necessary to sign an undertaking to prevent academic misconduct with the author, so as to provide a basis for the settlement of future disputes [2]. Copyright issues involved in publishing shall be bound by

the text of the contract by means of the transfer agreement of copyright, such as the mode of licensing, the right of licensing, the scope and time limit of licensing, and the standard and method of payment for manuscripts.

C. Grasping the gist of the primary review

The achievements of fund projects are mostly manifested in academic papers. However, some scholars set up projects not for scientific research, but for project funds. This has led to the phenomenon of scholars publishing papers with each other's names in fund projects [3]. Both the repeated declaration of the same research content and the false links between scholars in one project are academic misconduct. Therefore, strict examination of fund projects is also an important measure to prevent academic misconduct.

At present, some journals only require authors to provide fund grades and fund numbers, without specific project names, which provides an opportunity for fund projects to be randomly listed. With the name of the funded project, editors can check whether the research content is consistent with the research direction submitted by extracting keywords and whether the contributions are the core part of the project, so as to judge the authenticity of the project and the innovation of the paper. Through the review of the fund project name and contribution content, the editor can basically confirm the relationship between the fund project and contribution. If the fund project and the contribution have an estranged link or are irrelevant, the author should be contacted to confirm the situation, and due deletion should be made immediately, so as not to give any opportunity for academic fraud.

III. SUPERVISION IN PROCESS — IMPLEMENTATION OF MANUSCRIPT REVIEW PROCESS AND REVIEW SOFTWARE

A. Adhering to sending papers to "specific peers" for examination

With the classification of professional disciplines becoming more and more detailed and the emergence of interdisciplines, the editorial department should try to select a good review expert, and realize the professional reviews by specific peers. The higher the accuracy of expert selection is, the stronger the grasp of academic misconduct will be [4]. Generally speaking, people refer to the peers with the same major at the first or second level as "overall peers", and refer to the peers with the same major at the third or fourth level as "specific peers". According to the relationship between the author and the reviewer, the responsible editor can adopt single or double concealment methods to review the manuscript. It is not that a higher the degree of anonymity is always more helpful to the manuscript review. On the basis of excluding "favor-based" review, it is necessary to provide more detailed author information to the expert of specific peer as far as possible, so that he or she can make a better judgment on whether there is academic misconduct in the manuscript.

B. Editorial board review system

It is necessary to give full play to the guiding and supervising roles of the board members and classify them according to their specialties. After the paper passes the expert evaluation, the related professional editorial committee shall review the academic misconduct and academic quality of the manuscript within specified time. The establishment of the editorial board member review system, on the one hand, the editorial board can help the editorial department to better academic quality; on the other hand, through exchanges and interactions, the editorial board can better integrate into the work of the journal, so as to give full play to the function of the editorial board. In addition, the editorial board should regularly held expert finalization meeting, to make collective evaluation to proposed manuscripts of each issue. The chief editor or the executive editor tests the manuscripts to be published and supervises the quality, so as to strictly control the academic quality from all aspects.

C. The use of various kinds of search software

At present, there are three kinds of academic misconduct retrieval systems. The first one is AMLC (detection system for academic misconduct of sci-tech journals) and SMLC (detection system for academic misconduct of social science journals) developed by CNKI. The research center of CNKI research integrity management system provides the editorial departments of journals that provide data to CNKI with the account number and password for free use. These journals will use the system basically. The second is the WF Similarity Detection. The launch time of the Wanfang system is similar to that of CNKI, and many editorial departments have been using it for a long time. The third is the VIP Paper Check System, which was launched a little later than CNKI and Wanfang Data. The detection principle is similar to the former two, based on the database of Chinese Sci-tech Journals of VIP Company. The fourth kind is the large scale similarity analysis system launched by the Chaoxing Group. The company, which has been working on digital libraries, has a database of about 2.8 million e-books, a powerful complement to the previous three periodical data detection systems. For suspicious literatures, at least two or three retrieval systems should be used for comprehensive comparison.

In addition, review of bibliographic records through databases such as CNKI, Web of Science, Science Direct, and Springer Link and content rechecking through professional anti-plagiarism detection system like AMLC and Cross Check can complement each other [5], and Chinese check by AMLC and English check by Cross Check can complement each other. Multi-pronged inspection can make the work comprehensive, meticulous and reliable

D. Insisting on multiple inspections

Since there is a time lag from receiving manuscripts to external review, and then to publication, some manuscripts with problems of academic misconduct such as multiple submission and repeated publication of one manuscript, may

have a very low degree of repetitive rate during the initial examination and may thus be "missed". Before the publication of the journal, the manuscript should be checked again to avoid the publication of manuscripts missed due to "time lag". For the revised content by the authors should also be carefully compared, and if necessary, should also be tested for similarity.

Papers with a repetitive rate of less than 5% can be basically left without management. Those with a repetitive rate of more than 5% and less than 30% need to be carefully reviewed by editors from an academic perspective. If the overlapping text is mainly research review, citation, or law or regulation, and is a direct citation, it may not be processed; if it is an indirect quotation, the author should be asked to reorganize the language to avoid infringement. Papers with a repetitive rate of more than 30% may be revised or rejected according to the specific circumstances of the manuscript; for some manuscripts under special circumstances, in addition to referring to the test results, it is also necessary to judge whether to enter the review process based on editing experience [6]. Due to the fact that the articles of the review category should be based on a considerable amount of literature and must have a moderate amount of quotations, the text of such articles has a relatively high degree of repetitive and cannot be judged with a "one-size-fits-all" standard.

IV. PUNISHMENT AFTERWARDS — THE ESTABLISHMENT AND USE OF REPORTING SYSTEM AND RELATED DATABASE

A. Establishing a reporting system

It is necessary to set up the report mailbox and the report website, and ask the reader to criticize and supervise so as to set up the report system, standardize the report processing procedure, and publicize the report processing result. Journals should set up a committee on academic standards to deal with manuscripts suspected of academic misconduct. Once they receive a report, the committee will conduct strict peer review in accordance with the scheduled process to identify whether there is any academic misconduct. If necessary, the results of the report will be published on the website and paper journals [7]. The reasonable requirements of the whistleblower need to be protected. The information of the whistleblower shall not be disclosed, and the result of the treatment shall be informed to the whistleblower after the misconduct has been dealt with.

B. Establishing a shared database on academic misconduct

At present, China's periodical publishing institutions are operating in their own way, and there is a lack of effective resource sharing after a paper is found to have the problem of academic misconduct and rejected, so it is difficult to prevent "problem" articles from being sent to other journals again. For part of the fake papers where example numbers are modified, methods are made different, and part of the data are the same, in addition to deliberate alteration of text, it is not easy to find them through duplicate checking and it is necessary for editors to carefully check the results and data.

If the author makes multiple contributions with one manuscript, it will waste the time and energy of editors in multiple journals. A shared problem database can be established by relying on the academic misconduct detection system, which can be divided into sections for different disciplines and specialties. If an editor finds such problems, he/she can put them into the problem database of the relevant specialty section and explain the problems, so as to facilitate other editorial departments to view and avoid repetitive work.

It is necessary to strengthen the communication between the same kind of journals, and the editorial departments of relevant journals should keep close contact and exchange information. They should jointly develop a common information platform to establish a shared catalogue of "manuscripts under preparation" and "manuscripts to be published" among related professional journals. And the author information of academic misconduct so as to resist all kinds of academic misconduct. It is necessary to establish a widely interactive platform for preventing academic misconduct, establish a "prevention" connection mechanism, and gradually form an alliance of journals to combat academic misconduct, so as to prevent academic misconduct of repeated publication from the source.

C. Establishing database of two kinds of author

Sci-tech journals can jointly establish a database of dishonest authors, and add the information of those authors who contribute to the database with high repetitive rate and serious academic misconduct. They should band together to take some measures against authors in the database and to work together to prevent academic misconduct. At the same time, in order to eliminate vice and exalt virtue, it is also necessary to establish the author academic integrity system, and list those with academic misconduct in the integrity system. It is also proposed to establish academic integrity files, publicize serious academic misconduct to the public, and take restrictive measures in project application, position promotion, reward evaluation and other aspects.

V. CONCLUSION

It is not only the social responsibility of academic journals to purify the academic atmosphere, maintain the normal academic ecology, advocate the fine style of study and promote the healthy development of academic cause, but also the glorious mission endowed by the functions of academic journals. Editors of academic journals should constantly summarize the academic misconduct encountered in their work, make full use of the academic misconduct inquiry system and review expert resources, enhance the publicity and education of academic misconduct, strictly punish academic misconduct, establish and improve the academic norm system and strive to purify the academic environment, so as to curb academic corruption in multiple ways. Academic journals should work together and have zero tolerance for academic misconduct so as to create a good academic environment.

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