Postprint of a Study on Chinese Scholars' Acceptance of Open Peer Review for Academic Papers

Authors: Du Xingye, Li He, Wang Ling, Yuanying Liu, Yi Fei, Xu Jian, Wang Chuanqing, Shanjun Wang, Liu Jingjing

Date: 2023-08-26T00:00:00+00:00

Abstract

[Purpose/Significance] Peer review, as an evaluation system, has long been criticized for being "subjective" rather than "objective." Open peer review can alleviate this problem to a certain extent. Scholars' acceptance of open peer review is the primary consideration for academic journals when implementing this system. [Method/Process] First, through literature review, we discuss the concept of open peer review for academic papers, as well as its advantages and disadvantages compared to traditional peer review. Then, we conduct a questionnaire survey among researchers from various disciplines and research fields in China regarding the content to be disclosed in the open review process, obtain data on Chinese scholars' acceptance of open peer review for academic papers, and analyze Chinese scholars' acceptance of open peer review for papers. [Results/Conclusion] The survey respondents came from different disciplinary fields, with 100% having publication experience, over 70% having peer review experience, and over 40% having reviewed for international journals. The survey results show that half (accounting for 50.33%) of Chinese scholars accept open review of academic papers, and Chinese scholars have different levels of acceptance at different stages of the academic paper review process. Through non-parametric statistical tests, there are differences in acceptance among peer reviewers from different disciplines; however, the difference in acceptance among peer review experts with or without international journal review experience is not significant. The relevant analysis data from this paper can provide support for Chinese academic journals to implement the open peer review system.

Full Text

Research on Chinese Scholars' Acceptance of Open Peer Review for Academic Papers

Du Xingye[1,2], **Li He**[1], **Wang Ling**[2], **Liu Yuanying**[2], **Yi Fei**[2], **Xu Jian**[2], **Wang Chuanqing**[2], **Wang Shanjun**[2], **Liu Jingjing**[2]

[1]School of Management, Jilin University, Changchun 130022
[2]National Science Library, Chinese Academy of Sciences, Beijing 100190

Abstract

[**Purpose/Significance**] As the primary quality control mechanism for academic journals, peer review has long been criticized for being overly "subjective" rather than "objective." Open peer review can alleviate this problem to some extent. Scholars' acceptance of open peer review is a primary consideration for academic journals when implementing this system. [**Method/Process**] Through literature review, we first defined the concept, advantages, and disadvantages of open peer review compared to traditional peer review. We then conducted an online survey of researchers from various disciplines and research fields in China regarding their willingness to disclose information during the open review process, and analyzed the collected data on Chinese scholars' acceptance of open peer review. [**Result/Conclusion**] We received 304 valid questionnaires. All respondents had publication experience, over 70% had review experience, and more than 40% had served as reviewers for international journals. Results indicate that approximately half (50.33%) of Chinese scholars accept open peer review for academic papers, with varying degrees of acceptance at different stages of the review process. Non-parametric statistical tests show that acceptance differs by discipline; however, whether reviewers have international journal review experience does not significantly affect acceptance. The analysis results can provide reference for Chinese academic journals implementing open peer review.

Classification: G250
Keywords: open peer review; acceptance; academic journals; academic papers; quality control

2. Drawbacks of Traditional Peer Review Methods

Peer review is a system or procedure that heavily relies on the "subjective judgment" of experts [1]. In traditional peer review (as opposed to open peer review, referring to the relatively closed review systems used by academic journals), reviewers or experts are selected and designated by editorial boards or editors. For journals, the pool of qualified reviewers in each discipline is small, so in traditional manuscript review mechanisms, review requests are repeatedly sent to the same group of people. The selection of reviewers becomes an important

yet difficult task for journal editorial departments. Although some editorial departments have established their own reviewer databases and continuously supplement new experts and remove unqualified reviewers based on actual conditions, difficulties in selection persist.

Beyond the difficulty of reviewer selection, the effectiveness and fairness of review mechanisms, standards, processes, and outcomes are also major aspects of criticism toward traditional peer review. Currently, the most widely used review mechanisms in academia and the publishing industry are single-blind and double-blind systems. Both mechanisms have several drawbacks that lead to injustice in the review process [2-4]: (1) The review may not be truly anonymous, as reviewers can easily identify authors, particularly in narrow specialized fields where relatively few researchers work on certain topics, or when reviewers can infer the author from references, or when authors reveal their research background by citing their own previous work; (2) Due to the closed nature of traditional review mechanisms, review experts may have only superficial understanding of the research field under review, insufficient to provide authoritative and convincing evaluations, especially when conducting interdisciplinary or cross-field evaluations where experts' grasp of quantitative data may not fully align with the actual conditions of the research field; (3) Reviewers may be overly influenced by the author's reputation and other social relationships (a possibility that cannot be excluded even under "double anonymity"); (4) If editors only invite a few peers, a very small group of scholars will evaluate each other's work, leading to inbreeding; (5) Reviewers' perceptual inertia, mindset, and personal preferences may affect the recognition of creative research results, or reviewers may be influenced by their own interests and thus reject the publication of some competitive research findings; (7) Reviewers' comments on academic papers may be cursory, without repeating tests of hypotheses or methods, or without posing empirical challenges to paper results.

3. Development and Research Status of Open Peer Review

Compared with traditional peer review, open review fully embodies openness, with main characteristics including: (1) **Transparency**. The open review process is completely transparent and public, with authors and reviewers having equal status, which can prevent reviewers from making irresponsible evaluations and encourage them to provide objective and fair opinions, ensuring the quality and timeliness of peer review. For instance, J. Bordier's study [18] concluded that open review prompts reviewers to provide more detailed comments, and that openness encourages them to strengthen quality control of their reviews to make comments more understandable; authors under review also believe that openness better facilitates self-examination of their papers and enables direct discussion with reviewers. (2) **Interactivity**. Under open review, authors and reviewers can communicate, exchange, and discuss online in real time, providing timely feedback of expert opinions, increasing review reliability, and effectively overcoming the understanding biases and one-way communication defects in-

herent in traditional closed peer review [19-20]. (3) **Verifiability of Review**. Open review can better achieve the testability and verifiability of review comments and author research, preserve and verify manuscript review history information, and ensure objectivity in the review process. For example, a data survey of PEERJ journal from 2013-2016 showed that approximately 74% of articles could provide complete historical review data [12]. (4) **Scientific Selection of Experts**. Based on the convenience and open communication of open review, domestic and international peer experts can be selected from a broader range to participate in manuscript review, making expert selection more standardized, open, and effective. (5) **Effective Supervision**. Under open review, both authors' manuscripts and reviewers' comments are in the public online process, forming effective academic supervision and promoting review timeliness, even shortening the publication cycle of research results.

However, research has found that most open review effects are not good, and participant enthusiasm is not high. A. Mulligan [14] conducted a large-scale questionnaire survey in 1999 on opening reviewers' comments to authors in large comprehensive medical journals. Although the study concluded that open review comments could greatly improve peer review quality, the survey results at that time showed that only 35% of experts agreed to open review, while 65% disagreed or requested anonymity. However, this research was not attempted in specialized academic journals or open-access journals. *Nature* magazine's open peer review experiment in 2006 ended after a few months because editors found that reader comment enthusiasm was not high. Additionally, some experts have questioned whether open review can truly compensate for the deficiencies of traditional peer review, such as the possibility of continued untimely reviews, whether premature disclosure of results in competitive research fields may lead to plagiarism, and whether the fairness of open review remains to be examined.

Currently, the publishing community increasingly demands consistency in peer review results and verifiability of the review process. The most basic requirement for judging whether review results are consistent, whether the review process is verifiable, and whether reviewed papers are innovative is that academic papers undergo open review. But what is researchers' acceptance of open peer review? This is a difficult problem facing journal editorial departments and a key factor in deciding whether to adopt open review systems. Therefore, based on existing domestic and international research results, we designed the disclosure content for open peer review and surveyed Chinese scholars' attitudes toward open peer review, aiming to understand their basic attitudes and provide reference for journal editorial departments implementing open peer review.

4. Survey Design

The survey design is shown in Table 1 . We investigated respondents' (authors or reviewers or both) attitudes toward disclosing relevant information online at different stages of paper review [21]. The review stages include four phases: pre-review, during review, post-review, and after publication.

Table 1. Survey Design on Scholars' Willingness to Disclose Personal and Paper Information at Different Stages

Review Stage	Disclosure to Reviewers	Disclosure to Website Users
Pre-review	Name, affiliation, research direction, title, position, education, contact information	Title, abstract, keywords, full text
During review	Reviewer name, affiliation, research direction, title, position, education, contact information; Peer review comments (review opinions)	Manuscript draft, revised manuscript; Review progress, review comments
Post-review	Peer review results, peer review comments, author's response to review comments, author's revision description	Review results, specific review comments
After publication	Peer review comments	Paper information, peer review comments

5. General Survey Situation

The research team designed the questionnaire based on the above survey design. After expert pre-testing and further revision, the questionnaire was uploaded to the Wenjuan.com platform (https://www.wenjuan.com/) for distribution and collection from June to July 2017. Over 1,000 questionnaire requests were sent, and 304 valid questionnaires were received. All analyses below are based on these 304 questionnaires.

5.1 Basic Information

Survey respondents' professional fields were divided into seven areas: basic natural sciences, humanities and social sciences, economics and management, medicine, engineering and electromechanical, library/information science and journals, and other fields. The distribution was: basic natural sciences (104 respondents, 33.55%), humanities and social sciences (32, 10.53%), economics and management (26, 8.55%), medicine (14, 4.61%), engineering and electromechanical (37, 12.17%), library/information science and journals (89, 29.28%), and other fields (4, 1.32%). A total of 226 respondents held senior or associate senior titles (74.37% of total respondents). In terms of education, 194 held doctoral degrees or were PhD candidates (63.82%), 77 held master's degrees or were

master's students (25.33%), and the remaining 10.86% had bachelor's degrees or above.

5.2 Publication and Review Experience

A total of 150 respondents (49.34%) had published more than 20 papers, 50 (16.45%) had published 10-20 papers, 82 (26.97%) had published 3-10 papers, and only 22 (7.24%) had published fewer than 3 papers. Regarding review experience, 69 respondents (22.7%) had more than 10 years of reviewing experience, 52 (17.11%) had 5-10 years, 74 (24.24%) had no reviewing experience, and the remaining 109 (35.85%) had 1-5 years of experience. Among researchers with reviewing experience, 123 (40.46%) had reviewed more than 20 manuscripts and were considered experienced reviewers, while 131 (43.09%) had reviewing experience for international journals (journals published in non-Chinese languages).

5.3 Previous Review Methods and Understanding of Open Peer Review

Regarding previously used review methods, 115 respondents (37.83%) had used single-blind review, 82 (27.63%) had used double-blind review—these two being the most commonly adopted methods by journal editorial departments. Only 15 respondents (4.93%) had used open review (open peer review). Although only 4.93% had used open review, 132 respondents (43.42%) had some understanding of it (somewhat or fairly familiar), while only about 17% (52) knew nothing about it. Over half of respondents believed open peer review means posting authors' submissions online, informing authors of reviewers' identities, and allowing both authors and readers to see reviewers' comments online and engage in dialogue with reviewers.

5.4 Perceived Advantages/Disadvantages and Willingness to Submit to Journals with Open Peer Review

Approximately half or more (over 150) respondents believed open peer review has the following advantages: transparent, objective, and fair review process; more accurate, standardized, and detailed review comments; ability to urge reviewers to complete reviews promptly and reduce delays; prevention of academic misconduct by reviewers; and facilitation of communication with reviewers and readers. Views on disadvantages were also concentrated: over 60% believed open peer review could create conflicts of interest or competitive relationships between reviewers and authors, affecting objective and fair evaluation; disclosing paper content might trigger intellectual property disputes; and another one-third believed open peer review might expose authors' privacy. Despite recognizing these drawbacks, when asked about willingness to submit to journals implementing open peer review, 153 respondents (50.33%) were willing to submit to journals that disclose reviewer information and review comments; 42.43% were willing to submit to journals that disclose author and reviewer information

and review comments; and only 22 (7.24%) were unwilling. The detailed results are shown in Figure 1 [Figure 1: see original paper].

6. Analysis of Scholars' Acceptance of Open Peer Review

6.1 Authors' Acceptance

Authors are the creators and owners of academic papers. When authors submit papers to journals for peer review, their feelings throughout this process are crucial. Understanding authors' attitudes and willingness toward open peer review is the most important reference for journals implementing open peer review policies.

6.1.1 During Manuscript Review After authors submit manuscripts to journal editorial departments, editors assign reviewers or expert systems automatically match experts for evaluation. During this process, authors can choose to disclose their personal information and manuscript details to peer reviewers and website users. In this survey, aside from author position, over half of respondents agreed to disclose other personal attributes (name, affiliation, research direction, title, education, contact information) to reviewers (peer reviewers), with only 6.58% preferring complete anonymity to experts (see Figure 2 [Figure 2: see original paper]). However, regarding disclosure to website users, authors were relatively more cautious, with a smaller proportion agreeing to disclose information during the review process, mostly willing to share only paper titles and keywords (see Figure 3 [Figure 3: see original paper]).

During manuscript review, reviewers may communicate with authors about specific issues. A total of 234 respondents (76.97%) agreed to communicate via email, 128 (42.11%) agreed to use online instant messaging tools, and 132 (43.42%) believed online communication was acceptable, indicating these researchers were willing to open instant communication tools to reviewers (see Figure 4 [Figure 4: see original paper]).

6.1.2 After Manuscript Review Completion After manuscript review is completed, peer reviewers' comments are formed. At this point, are authors willing to disclose these comments to website users? Survey results show that after review completion, authors' willingness to disclose to website users increased significantly compared to during the review process. For instance, willingness to disclose the full manuscript text increased from 13.82% to 33.88%, and 53.62% of authors were even willing to disclose peer review results. Detailed results are shown in Figure 5 [Figure 5: see original paper].

6.1.3 After Paper Publication After paper publication, the author's paper has completed review and been formally approved by the editorial department. At this stage, regarding information about the article, are authors willing to disclose peer review comments to website users? Are they willing to allow website

users to understand and supervise manuscript information after publication? Survey results show that after publication, authors' willingness to disclose peer review comments increased from 53.62% to 59.87%, with 62.83% willing to disclose paper revision descriptions. Detailed results are shown in Figure 6 [Figure 6: see original paper].

6.1.4 Acceptance of Non-Editor-Assigned Reviewers Accepting non-editor-assigned reviewers means that after submission, the submission system may automatically match reviewers who could be registered users meeting certain criteria from the network. Whether authors are willing to accept non-editor-assigned reviewers indicates their acceptance of broader peer review. In this survey, 123 respondents (40.46%) could accept it but did not want reviewers' comments disclosed; 121 (39.80%) were willing and accepted disclosure of review comments on the website; and only about one-fifth were unwilling to accept it. Details are shown in Figure 7 [Figure 7: see original paper].

6.2 Reviewers' Acceptance

Peer reviewers (review experts) are the most important factor in academic paper quality control. After accepting review invitations, they must objectively evaluate manuscripts' innovation, research standardization, research data, and research significance. Beyond assessing these factors and providing affirmation or questions, they must also give important conclusions such as whether to recommend publication, revision, or rejection. During the review process, after review completion, and after the reviewed paper is published, are they willing to disclose their personal information and review comments to authors and website users? Are they willing to accept supervision from authors and website users? Understanding reviewers' attitudes and willingness toward open peer review is also a crucial reference for journals implementing open peer review policies.

6.2.1 Reviewers' Views on Open Peer Review Survey results show that reviewers (peer reviewers) believe open peer review of academic papers in an open environment has many advantages. Over 55% of respondents believed open peer review helps reviewers provide more detailed comments, facilitates interaction and communication with authors and readers, helps reviewers make objective evaluations, and can prevent academic misconduct by authors. However, over 65% believed this approach might expose reviewers' privacy and could place reviewers in awkward situations if emotional or interest-related connections exist with authors. Another one-third believed that if open peer review were adopted, reviewers could spend more time conducting careful reviews. Obviously, both journal editorial departments and authors hope reviewers will conduct careful evaluations to make more objective and strict judgments about manuscripts.

6.2.2 During Manuscript Review After receiving review invitations from editors or journal review systems, peer reviewers can enter the review system

anytime to evaluate manuscripts. During this process, reviewers can choose to disclose personal information and review status to authors and website users. In this survey, except for review progress, review comments, and personal research direction that most experts agreed to disclose, only about one-third of reviewers agreed to disclose more personal details, indicating that reviewers are unwilling to disclose more personal information during the review process. Specific results are shown in Figure 8 [Figure 8: see original paper].

6.2.3 After Manuscript Review Completion Survey results show that after review completion, reviewers' willingness to disclose to website users changed compared to during the review process, with over 60% of peer reviewers accepting disclosure of review results and specific comments to website users and authors, accepting supervision from both parties. Only 9.54% completely disagreed with disclosure. Detailed results are shown in Figure 9 [Figure 9: see original paper].

6.2.4 After Paper Publication After paper publication, the paper has completed review and been formally published after author revisions. At this point, can peer review comments and reviewer information about the article be disclosed to website users? Survey results show that after publication, reviewers' willingness to disclose their review comments decreased compared to after review completion—for instance, willingness to disclose review results decreased from 68.09% to 53.95%, and willingness to disclose specific review comments decreased from 64.80% to 50.33%. However, willingness to disclose some personal information increased—for example, 40.79% were willing to disclose their names, up from 36.18% after review completion. Detailed results are shown in Figure 10 [Figure 10: see original paper].

7. Differential Analysis by Discipline and Review Experience

Do researchers from different disciplines and with different reviewing experiences have different acceptance levels of open peer review as authors and reviewers? This is a topic of great interest to journal editorial departments and researchers. Using SPSS software for cross-analysis and difference testing, this study obtained results on these questions. Due to space limitations, we only tested two groups with more respondents: basic natural sciences (104 respondents, 33.55%) and library/information science and journals (89 respondents, 29.28%), as well as differences between basic natural sciences and "humanities/social sciences + management disciplines," analyzing these groups' willingness to disclose relevant information after paper publication as authors and peer reviewers. Regarding different review experiences, we only tested differences between researchers with and without international journal review experience as peer reviewers in disclosing relevant information after paper publication.

7.1 Differential Analysis of Two Disciplinary Groups' Acceptance of Information Disclosure After Publication

The survey results on researchers from basic natural sciences and library/information science and journal fields, as authors after paper publication, regarding their acceptance of disclosing initial manuscripts, revised manuscripts, and peer review comments, as well as their attitudes as reviewers toward disclosing reviewer names, research directions, education, and review comments, are shown in Table 2 .

Table 2. Survey on Scholars' Willingness to Disclose Information After Paper Publication by Discipline (Number/Percentage)

Disclosure Item	Basic Natural Sciences	Library/Information & Journals	P-value
Initial manuscript - as author	23 (22.5%)	25 (28.1%)	0.379
Revised manuscript - as author	69 (67.6%)	52 (58.4%)	0.187
Peer review comments - as author	57 (55.9%)	54 (60.7%)	0.503
Reviewer name - as reviewer	40 (39.2%)	44 (49.4%)	0.156
Research direction - as reviewer	44 (43.1%)	51 (57.3%)	0.051
Education - as reviewer	28 (27.5%)	33 (37.1%)	0.155
Specific review comments - as reviewer	47 (46.1%)	54 (60.7%)	0.044*

Note: P<0.05 indicates statistical significance

The survey results on researchers from basic natural sciences and "humanities/social sciences + economics/management" fields are shown in Table 3 .

Table 3. Survey on Scholars' Willingness to Disclose Information After Paper Publication by Discipline (Number/Percentage)

Disclosure Item	Basic Natural Sciences	Humanities/Social Sciences + Economics/Management	P-value
Initial manuscript - as author	23 (22.5%)	13 (22.4%)	0.984
Revised manuscript - as author	69 (67.6%)	37 (63.8%)	0.620
Peer review comments - as author	57 (55.9%)	35 (60.3%)	0.583
Reviewer name - as reviewer	40 (39.2%)	21 (36.2%)	0.706
Research direction - as reviewer	44 (43.1%)	26 (44.8%)	0.836
Education - as reviewer	28 (27.5%)	12 (20.7%)	0.342
Specific review comments - as reviewer	47 (46.1%)	23 (39.7%)	0.431

Tables 2 and 3 show that as authors after paper publication, researchers from basic natural sciences and library/information science/journal fields, as well as basic natural sciences and "humanities/social sciences + economics/management" fields, show no significant differences in willingness to disclose revised manuscripts and peer review comments to website users (the public). Their attitudes are basically consistent—over half agree to disclose these items, but they generally disagree with disclosing initial manuscripts (both under 25%). When serving as reviewers, scholars from these two disciplinary groups show no differences in willingness to disclose research direction and education to the public, but there are some statistically significant differences in disclosing specific review comments between basic natural sciences and library/information science/journal fields, with the latter showing greater acceptance (over 60%). The research team believes these differences mainly come from respondents in the editorial field, who have greater acceptance of openness.

7.2 Differential Analysis by International Journal Review Experience

The survey results on researchers with and without international journal review experience regarding their willingness to disclose information after paper publication are shown in Table 4 .

Table 4. Survey on Scholars' Willingness to Disclose Information After Paper Publication by International Review Experience (Number/Percentage)

Disclosure Item	With International Review Experience	Without International Review Experience	P-value
Initial manuscript - as author	31 (23.7%)	41 (23.7%)	0.994
Revised manuscript - as author	90 (68.7%)	101 (58.4%)	0.065
Peer review comments - as author	76 (58.0%)	106 (61.3%)	0.566
Reviewer name - as reviewer	51 (38.9%)	73 (42.2%)	0.566
Research direction - as reviewer	59 (45.0%)	89 (51.4%)	0.268
Education - as reviewer	37 (28.2%)	52 (30.1%)	0.731
Specific review comments - as reviewer	63 (48.1%)	90 (52.0%)	0.497

Before the survey, the research team discussed whether scholars' international journal review experience might affect their disclosure choices. Table 4 shows that whether as authors or reviewers, having international journal review experience makes no statistically significant difference in their choices.

8. Conclusion

Open peer review can address some drawbacks of traditional peer review to a certain extent, but implementing this new review policy largely depends on scholars' acceptance and recognition. Understanding scholars' attitudes toward open peer review is crucial. Although this survey provides some understanding of Chinese scholars' attitudes toward open peer review, it has limitations: the survey period was short (June-July 2017), the covered disciplines and population

were limited (only over 300 responses), and some disciplinary classifications are questionable—for example, this survey grouped "library/information science and journals" together, which are different categories despite the overlap in research topics. Additionally, some survey questions and responses may not have been clear. Nevertheless, the survey results are authentic and reliable and can still provide reference for academic journal editorial departments.

Psychological barriers such as concerns about personal privacy leakage may be an important factor for authors or reviewers choosing not to disclose, as authors' works and experts' opinions are thoughtful achievements and viewpoints. Disclosing these achievements and viewpoints to the public before confirming publication or adequate verification is indeed difficult to accept. Moreover, concerns about potential conflicts of interest and competitive relationships between reviewers and the public that could affect objective and fair evaluation are also important psychological barriers. On one hand, journal editorial departments need to use information technology and editorial norms to constrain the public and reviewers; on the other hand, this is closely related to the norms of scientific research in society as a whole, and completely overcoming these psychological barriers requires societal effort and further standardization of scientific research.

The research team will further study open peer review in the next step, expanding the survey scope and designing system implementation plans to improve expert selection mechanisms for better research results.

Acknowledgments

This paper and survey received guidance and strong support from Lü Qing, Director of the Science and Technology Journals and Knowledge Service Center at the National Science Library of Chinese Academy of Sciences, and Chu Jingli, President of *Library and Information Service* Magazine, as well as assistance from Zhao Fang and Xie Mengzhu from the *Library and Information Service* Editorial Department in questionnaire collection. We express our sincere gratitude.

References

[1] Geisler. Science and Technology Measurement System[M]. Translated by Zhou Ping, Huang Junying, Liu Ya, et al. Beijing: Science and Technology Literature Press, 2004.
[2] MARSH H W, JAYASINGHE U W, BOND N W. Improving the peer-review process for grant applications: reliability, validity, bias, and generalizability[J]. American psychologist, 2008, 63(3): 160-168.
[3] LEE C J, SUGIMOTO C R, ZHANG G, et al. Bias in peer review[J]. Journal of the American Society for Information Science and Technology, 2013, 64(1): 2-17.
[4] Wan Hao, Tan Zongying, Zhu Xiangli. Comparative Analysis of the Roles of Peer Review and Bibliometrics in Research Evaluation[J]. Library and

Information Service, 2017, 61(1): 134-152.
[5] ROSS-HELLAUER T. Defining open peer review: part two—seven traits of OPR[EB/OL]. [2017-02-16]. https://blogs.openaire.eu/?p=1410.
[6] SHEMA H. An introduction to open peer review[EB/OL]. [2017-02-16]. https://blogs.scientificamerican.com/information-culture/an-introduction-to-open-peer-review.
[7] GOODMAN S N, BERLIN J, FLETCHER S W. Evidence supports the view that peer review improves the quality of the reporting of research results[M]. Pierie: Walvoort & Overbeke, 1996.
[8] SMITH R. Opening up BMJ peer review: a beginning that should lead to complete transparency[J]. BMJ, 1999, 318: 4-5.
[9] VAN ROOYEN S, GODLEE F, EVANS S, et al. Effect of open peer review on quality of reviews and on reviewers' recommendations: a randomised trial[J]. BMJ, 1999, 318: 23-27.
[10] Zhang Yiji. Research on Participants' Enthusiasm in Open Peer Review of Foreign Scientific Journals[J]. Acta Editologica, 2015, 27(4): 319-322.
[11] Liu Yidong. Open Evaluation: A New Alternative to Peer Review[J]. Gansu Social Sciences, 2015(4): 27-31.
[12] He Haoyu, Ma Hanqing, Hou Chunmei, et al. Analysis of the Core Competitiveness of PeerJ's New Publishing Model[J]. Chinese Journal of Scientific and Technical Periodicals, 2015, 26(12): 1330-1335.
[13] Comments[EB/OL]. [2017-02-09]. http://www.plosone.org/static/commentGuidelines.
[14] MULLIGAN A, HALL L, RAPHAEL E. Peer review in a changing world: an international study measuring the attitudes of researchers[J]. Journal of the Association for Information Science and Technology, 2013, 64(1): 132-161.
[15] Huang Xuemei, Zhang Hong, Zhang Xiao. Analysis and Research on Peer Review Models for Academic Research Achievements[J]. Chinese Journal of Scientific and Technical Periodicals, 2016, 27(6): 592-597.
[16] Liu Chunli, He Qincheng. The Emergence, Development, Effectiveness and Feasibility of Open Peer Review[J]. Chinese Journal of Scientific and Technical Periodicals, 2013, 24(1): 40-44.
[17] Zheng Xintian, Zhang Silong. Current Status and Development Trends of Open Peer Review in Academic Journals[J]. Chinese Journal of Scientific and Technical Periodicals, 2015, 26(2): 133-138.
[18] BORDIER J. Open peer review: from an experiment to a model: a narrative of an open peer review experimentation[EB/OL]. [2017-02-16]. https://hal.archives-ouvertes.fr/hal-01302597.
[19] Defining open peer review[EB/OL]. [2017-03-24]. https://blogs.openaire.eu/?p=1410.
[20] PÖSCHL U. Multi-stage open peer review: scientific evaluation integrating the strengths of traditional peer review with the virtues of transparency and self-regulation[J]. Frontiers in computational neuroscience, 2012, 6. doi:10.3389/fncom.2012.00033.
[21] Du Xingye. Logic Flowchart of Open Peer Review for Academic Papers[EB/OL]. [2017-02-16]. http://blog.sciencenet.cn/home.php?mod=space&uid=453577&do=blog&id=1068

Author Contributions

Du Xingye: Research design, literature review, questionnaire design, survey and analysis, paper writing.
Li He: Research design, paper guidance.
Wang Ling: Literature review, questionnaire analysis, English abstract.
Liu Yuanying: Literature review, questionnaire design and survey.
Yi Fei: Literature review, questionnaire design and survey.
Xu Jian: Literature review, questionnaire design and survey.
Wang Chuanqing: Literature review, questionnaire design and survey.
Wang Shanjun: Literature review, questionnaire design and survey.
Liu Jingjing: Questionnaire survey and analysis.

Research on the Attitudes of Chinese Researchers Towards the Open Peer Review

Du Xingye[1],[2], Li He[1], Wang Ling[2], Liu Yuanying[2], Yi Fei[2], Xu Jian[2], Wang Chuanqing[2], Wang Shanjun[2], Liu Jingjing[2]

[1]School of Management, Jilin University, Changchun 130022
[2]National Science Library, Chinese Academy of Sciences, Beijing 100190

Abstract: [Purpose/significance] As the "gatekeeper" of scholarly journals, the peer review has been criticized for lacking the transparency quality assurance. The open peer review, to some extent, could overcome the limitation and live up to the demands of open science and giving reviewers credit. Thus, it is critical for journals to investigate the attitudes of researchers towards the open peer review before it is implemented. [Method/process] Based on the literature review, we firstly defined the concept, the pros and cons of the open peer review; then, we conducted an online survey focusing on the information disclosure willingness during the open review process of respondents, and analyzed the collected data. [Result/conclusion] 304 valid questionnaires from China have been received. All respondents have authored papers and 70% of them have peer review experience, including 40% have review experience for international journals. The result indicates that about half (50.33%) of the Chinese researchers maintain a positive attitude towards the open peer review, and the degree of acceptance varies at different stages of the open peer review process. While the discipline of researchers affects their attitudes towards the open peer review, the peer review experience for international journals makes little difference on the results. The results and analysis in this study could serve as a reference for Chinese journals to put the open peer review into practice.

Keywords: open peer review; acceptance; scholarly journal; academic paper; quality control

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