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Can training doctoral students to participate in peer review alleviate the shortage of peer reviewers in academic publishing?

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Introduction

Nurturing the next generation in academia is demanding but essential, requiring careful attention and planning. As scholars and researchers, our mission is to create new knowledge and nurture the future generation. In this essay, I would like to discuss the benefits of mentoring doctoral students to become future peer reviewers and editorial board members. Three specific topics will be covered: first, the crisis of the publishing process; second, how doctoral students can help; and third, some challenges that need to be addressed. This discussion will be helpful for early career researchers (particularly doctoral students) and editors to understand the development of the academic publishing industry and gain more knowledge on its uses.

The Escalating Crisis within the Peer Review System

In December 2023, 8 months after submitting a manuscript, I received an email from the journal indicating that my peer review process was delayed due to a shortage of reviewers. Upon discussing with my colleagues, I realized that this problem is not uncommon. Indeed, there is a problem facing the academic publishing industry: a serious shortage of proficient reviewers.

Academic publishing has witnessed fast growth over time in both quality and quantity, placing immense pressure on publishers and journals to cope with the soaring demand for peer review. The shortage of qualified reviewers can result in prolonged publication processes, insufficient representation of diverse perspectives, and a heavier workload for the reviewers who are available.

A report from Publons and Clarivate Analytics [1] indicated that about 71% of researchers declined review requests because the article fell outside their expertise (Fig. 1). Meanwhile, 42% declined because they were too busy, and 39% stated that they had received no peer review training. Furthermore, 10% of reviewers are responsible for 50% of all peer reviews, and researchers in developed countries write three times as many peer reviews per paper submitted as researchers in emerging nations [2,3]. This unfortunate situation impacts the time an article spends in the review process and the workload for some reviewers. It can also affect the num-

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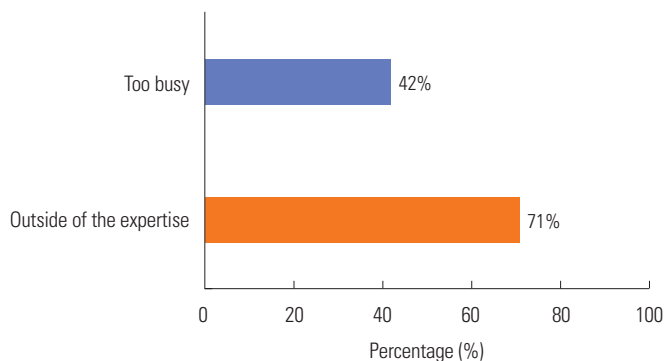


Fig. 1. Reasons researchers decline peer review requests. Reproduced from Publons and Clarivate Analytics [1].

ber of revise-and-resubmit decisions, reducing some manuscripts' likelihood of acceptance [4].

Doctoral Students are Willing to Help

Although many faculty members are jaded by serving as peer reviewers, doctoral students see it as an excellent opportunity and are eager to contribute [1]. I believe having exceptional doctoral students serve as peer reviewers or editorial board members after they have completed mentoring sessions could achieve several goals through a single initiative.

First, involving doctoral students in the peer review process can help alleviate the current shortage of journal reviewers, minimize the bias in the peer review process, and promote the journal. Inviting doctoral students will increase the pool of potential reviewers, since doctoral students often have expertise in their specific research areas and can offer valuable insights and feedback on the manuscripts. Their support will reduce the burden on existing reviewers, mainly faculty members, who may find it challenging to provide comprehensive and thoughtful feedback in a restricted timeline due to being overwhelmed with research and teaching activities at their institutions (or may even decline the review request). Thus, having a diverse group of reviewers, including early career researchers, can help to ensure a broad range of perspectives and minimize potential biases in the peer review process. In addition, engaging these emerging scholars can help foster relationships between journals and early career researchers, promote the journal's value, and potentially lead to future submissions and collaborations.

For doctoral students, participation in reviewer and potential editorial board training programs is a significant accomplishment in their careers. It provides doctoral students with hands-on experience in academic publishing, which can help them develop their research and critical, analytical, and writing skills. This experience can provide them with a sense of

fulfillment and satisfaction when they can contribute to advancing their field by helping to ensure the quality of published research. It is also an excellent opportunity to enhance doctoral students' resumes, as serving as a reviewer or editorial board member demonstrates their knowledge, expertise, and commitment and builds a network with top-notch professors and other peers in the field.

Furthermore, implementing those programs holds significant importance in shaping the journal's potential leaders, fostering the new generation, and shaping the academic heritage. Nurturing, defined as transmitting knowledge, skills, and expertise from generation to generation, is essential for any sector's sustained success and growth. The need for continuity over time is particularly notable in academia, where creating and disseminating new knowledge is a core mission. While individual scholars may come and go, their contributions to the body of knowledge and expertise continue to influence and inform the work of succeeding generations. By training and mentoring the next generation of scholars to become influential reviewers and editors, journals can transmit the knowledge and expertise of the current generation to future generations. These efforts can contribute to the long-term vitality and strength of academic publishing, even as individual scholars transition in and out of the field.

Tackle the Challenges and Move Forward

Despite the several advantages of mentorship programs for doctoral students, some challenges and concerns need to be addressed. One of the main concerns is ensuring the quality and consistency of reviews from inexperienced reviewers. Doctoral students may lack the expertise and knowledge required to provide high-quality reviews, which can affect the integrity and reputation of the journal. In addition, there may be resistance from established scholars and researchers who feel that mentorship programs are unnecessary or irrelevant to their work. There is a risk that these programs may further increase the workload for both faculty and doctoral students, who may be required to spend additional time on these programs. However, there may be some solutions to those concerns and challenges.

Journal and university collaboration

In the current academic world, every university strives for academic excellence, especially in terms of scholarly publishing. As of 2017, over 100 universities in North America had invested substantial funds and resources to establish their own university presses [5], and academic publishing has become a method of assessing faculty productivity and upholding the tenure system. With those resources, universities and journals

should collaborate to develop and implement effective mentorship programs for doctoral students. This can involve pooling resources, sharing expertise, and developing innovative models of collaboration that can benefit everyone involved. It may also require a shift in mindset, with more established scholars and researchers recognizing the importance of mentorship and actively supporting the next generation of scholars.

Aligning programs with faculty research interests is also fundamental to the success of mentoring. This design would help alleviate the opposing point that these students are not yet members of the profession, making them unqualified to review articles. In a program, the faculty should work in pairs with one to two mentees with the same interests. This strategy can prevent faculty from feeling overwhelmed by the mentoring process. Those trainings will build students' confidence and competence as emerging scholars. By engaging in the review process, they can develop a deeper understanding of the academic publishing system and gain valuable experience in assessing the quality and significance of research. Ultimately, empowering doctoral students to review articles, universities, and journals can help cultivate a new generation of scholars equipped with the skills and knowledge to make meaningful contributions to their fields.

Acknowledge peer review as a part of the academic workload

Integrating peer review into faculty workloads and the tenure promotion process is a potential strategy to address reviewer shortages and promote the activity's value in academia. Mentoring programs could be established as standalone courses, which cover topics such as peer review and equip faculty with the necessary skills and knowledge to carry out this task effectively. By doing so, faculty would not have to allocate extra time to peer review, thereby reducing the burden on their workload. A further incentive for faculty to undertake peer review could be their tenure status, as demonstrating a commitment to peer review may increase their chances of achieving tenure. It is, therefore, crucial to acknowledge the importance of peer review in the tenure promotion system.

Doctoral students will gain twice as much if mentoring programs are acknowledged in their academic studies. Simultaneously, they can earn credit hours, progress toward the degree, and acquire hands-on experience beneficial for their research. In addition, they will have the opportunity to network with established scholars and colleagues in their field, which may lead to future research collaborations and opportunities. In addition, having experience serving as a peer reviewer or even an editorial board position can enhance their CV and improve their prospects in the academic job market.

Moreover, if a peer review and editorial board mentoring

program is integrated into the academic program, both faculty and students can recognize the value and benefits of nurturing culture. By training the next generation of scholars to be effective reviewers and editors, academic journals and institutions can help ensure that academia will remain a vital source of knowledge and expertise for decades.

In addition, by promoting diversity and inclusiveness in academic publishing, these programs can ensure that academic knowledge reflects the complete diversity of human experience and that all voices are heard.

Conclusion

Mentorship programs for doctoral students aspiring to become peer reviewers and editorial board members can have a two-fold benefit for the academic publishing industry by mitigating the reviewer shortage and fostering a nurturing culture. However, challenges and concerns must be addressed, such as guaranteeing the quality and consistency of reviews from inexperienced reviewers and managing the workload of faculty and doctoral students. Collaboration between journals and universities, as well as recognition of acknowledgment of the peer review process in academic workload, can help overcome these challenges and promote the long-term vitality and strength of academic publishing.

Conflict of Interest

No potential conflict of interest relevant to this article was reported.

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