

Innovating the peer review process: A publisher's ethnography

Serge P.J.M. Horbach¹ and Willem Halffman²

¹*s.horbach@science.ru.nl*

Radboud University, Institute for Science in Society, P.O. box 9010, 6500 GL Nijmegen, The Netherlands
Leiden University, Centre for Science and Technology Studies, Wassenaarseweg 62A, 2333 AL Leiden, The Netherlands

²*w.halffman@science.ru.nl*

Radboud University, Institute for Science in Society, P.O. box 9010, 6500 GL Nijmegen, The Netherlands

Introduction

The academic peer review system plays a crucial role in many of the core processes of science, including grant and career reviews, but especially also the assessment of whether research reports deserve publication in research journals. The journal peer review system and the editorial process are the gatekeeper in the dissemination of research findings, act as a self-regulating mechanism, and, by acting as a selection mechanism, play a key role in the academic reward system (Fyfe et al., 2017; Guston, 2007).

Following a series of scandals and controversies, several changes and alternative ways of organising the process have been proposed. A host of enthusiastic innovators have experimented with new procedures and technologies, each envisioned to address its own specific concerns (Horbach & Halffman, 2018). These include the introduction of various software tools, such as similarity or statistics scanners; procedures of blinding or disclosing actor's identities; and new criteria for accepting manuscripts.

Despite all suggestions for how to potentially improve the system, wider adoption of these new initiatives seems rather slow (Horbach & Halffman, submitted). On a global scale, review procedures are rather stable and traditional ways of doing review still prevail. Implementation of novel review models seems to be restricted to specific niches, with the exception of text similarity scanners.

This raises questions about the conditions under which review procedures may change and the considerations that go into decisions about such transformations. Many of the newly suggested procedures aim to improve the quality of the scientific record or the fairness of the review process, but the factors that influence the successful implementation of such initiatives in actual review practices currently remain unknown. The proponents of these innovations mainly use substantive, content-related arguments, such as claims that novel review formats improve quality, transparency or scrutiny, ultimately benefiting science in its endeavour to produce and disseminate validated knowledge. These advocates assume that these features will carry a transformation forward. However, other considerations, such as publishers' motives or other stakeholders' perspectives, also affect developments in the editorial process. Hitherto, these have largely remained invisible in the literature on peer review innovations.

While current studies of the peer review system mainly focus on the biomedical science, we take a more inclusive approach, studying review practices in a wide spectrum of academic disciplines, including the social sciences and humanities. We set out to study what the editorial process looks like in practice and how this practice might be prone to innovation and development. Specifically, we were interested in understanding processes of transformation,

guided by questions such as: what does the process of transformation look like? Who makes decisions about such changes? And based on what reasons are transformations made?

Method

Detailed information on peer review procedures used by journals is surprisingly hard to find. While some journals' 'instructions for authors' provide some information, most journals do not explain the details of their peer review procedures. We therefore studied the actual practices comprising the editorial process during multi-day visits to the editorial offices of large, commercial academic publishers. The publishers hold a large portfolio of journals, ranging over all academic disciplines and organising their review process in multiple ways. Performing ethnographic research and doing extensive interviews with actors at the offices allowed us to get acquainted with the editorial process and its particularities, as well as analyse what might trigger transformations to the system.

Results and conclusions

Our study suggests that, while the current academic debate about new initiatives to develop or improve the editorial system or peer review system is usually centred on academic arguments, other considerations are at least as important in bringing about or hindering change. These notably include the hierarchical structure of the editorial process as well as commercial incentives related to the publisher's business model.

First, we note that the editorial process is structured very hierarchically, with distinct tasks for distinct layers of the process and a highly differentiated division of labour between these layers. Extensive training for in-house editors and elaborate guidelines and manuals maintain a highly standardised and routinized process. This process clearly shows the complexity and inter-relatedness of editorial practices, as a combination of many mundane, simple practices distributed over various carriers and places (Shove, Pantzar, & Watson, 2012).

Analysing how editorial practices may be transformed, we conclude that projects tend to be typically implemented only on a relatively small scale. For larger projects, managerial approval has to be obtained, showing casing the publisher's hierarchical structure. Analysing the convincing arguments for management to make changes in editorial practices we observe several recurring themes.

A major factor in innovations is the publisher's commercial interest, which should not come as a surprise. However, the concrete consequences of a commercial interest depend on how this interest is understood in the publisher's business model. Our study suggests that the publishers' interest is understood as an urge to uphold reputation, to shorten the editorial process and turnaround times, and to increase the willingness of authors and reviewers to cooperate with the publisher. Considerations about improved scrutiny or academic quality seem to be predominant only in a specific niche of the publisher's editorial staff. For others, the meaning of editorial practices is more closely tied to the publisher's business model, with an aim to monetise the publication process and increase its efficiency. Because the latter meaning is more common among managerial layers of the company's hierarchy, this meaning tends to prevail in decisions on large scale innovation projects. Also, in this drive towards efficiency, standardisation is pursued in order to create economy-of-scale benefits. This potentially threatens diversity in review formats, steering procedures towards those already implemented by the largest set of journals. Arguably, this particularly affects review models

in the social sciences and humanities. Last, factors commonly impeding rapid or large-scale changes are often related to infrastructural aspects such as the electronic editorial system or habits of authors, reviewers and editors.

We show that, apart from academic and content-related considerations, the editorial process is also connected to commercial practices of creating business value, monetising and increasing efficiency. In our talk we will illustrate these connections, building on our ethnographic data. This might provide valuable insights for future endeavours to innovate and develop the academic peer review system, ultimately contributing to improved research evaluation.

References

- Fyfe, A., Coate, K., Curry, S., Lawson, S., Moxham, N., & Rostvik, C. M. (2017). Untangling academic publishing: a history of the relationship between commercial interests, academic prestige and the circulation of research.
- Guston, D. H. (2007). *Between politics and science: Assuring the integrity and productivity of research*: Cambridge University Press.
- Horbach, S. P. J. M., & Halfman, W. (2018). The changing forms and expectations of peer review. *Research Integrity and Peer Review*, 3(1), 8. doi: 10.1186/s41073-018-0051-5
- Horbach, S. P. J. M., & Halfman, W. (submitted). *Journal Peer Review: Cautious Innovator or Sleepy Giant?* Minerva.
- Ritzer, G. (1993). *The McDonaldization of Society*. Newbury Park, California: Pine Forge Press.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice : everyday life and how it changes*. Los Angeles: SAGE. Retrieved from <http://site.ebrary.com/id/10568302>
- <http://search.ebscohost.com/login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=472457>.