Frontiers: Publishing solutions and technology for the 21st century

*Nicholas Fraser¹, Daisy Hessenberger¹

1. Frontiers

There is an ever-increasing tide of written manuscripts and research findings: last year alone 2.5 million research items were added to the Web of Science. Yet a large proportion of this research is delayed from publication in inefficient peer review systems and cascades of rejection, collectively holding back the publication of sound scientific research by thousands of years. Reviewers and editors are also becoming increasingly burdened by their peer review duties, putting a greater onus on publishers to improve the efficiency of their systems whilst maintaining a rigorous assessment process.

Frontiers tackles both of these issues by taking an impact neutral, collaborative approach to peer review, assisted by our unique digital tools. Authors, editors and reviewers collaborate on each individual article within our online forum, with the mandate to only accept science that is objectively sound. In doing this we decouple the processes of peer review and impact evaluation. The latter is instead achieved by empowering our communities to reach their own democratic decisions via innovative article-level metrics.

The next challenge for publishers is to disseminate this vast body of research in a useful way. As article-level metrics collect more and more data, can this be used to accurately label the impact of an article, or even a researcher? Can research networks, in collaboration with ORCID, assist with the personalized dissemination of research?

Open access publishers such as Frontiers are leading the way in terms of innovation; we look to the future to see what academic publishing in the 21st century should look like, and what tools we can use to achieve this.

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