

EDITORIAL

Emerging controversies in the current academic publication model

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The mushrooming of academic journals and publishing houses and the advent of online journals has called into question many of the paradigms of academic publishing. In addition, the culture underlying research publications has undergone intense scrutiny. The assumption that the scientific publication world is objective and motivated purely by a commitment to an increase in new knowledge is increasingly contested by the scientific community.

Areas of hot debate and controversy include

1. The hefty publication fees charged by journals resulting in academic publishing becoming a commercialized and focused on profit making.
2. High fees excluding authors from the developing world.
3. Emergence of predatory journals and publishing houses preying on authors.
4. Manipulation of the citation index by publishers.
5. The quality and validity of anonymous peer review.
6. The applicability of evidence based medicine in a world with limited resources and the emergence of a new paradigm of equity based medicine.

The huge publication fees charged from authors to publish research that is often funded by public funds is under scrutiny. Many authors resent the fact that they have to pay journals to publish the results of their hard work and then hand over copyright as well. High fees also exclude authors from low income countries.

The profits made by publishers, by charging authors for publishing their research and then selling the published articles to subscribers, has drawn the attention of con men and led to the profusion of dozens of fraudulent online journals. Many of these 'journals' will publish any article submitted to them with minimal or no peer review, while collecting a large publication fee. Although these journals purport to be American, British or Australian, their offices are situated in India or Nigeria!¹

A number of self-evident facts in academic publication have recently been called into question. These include the use of the impact factor or science citation index as a true measure of the worth of a publication. It seems irrational and even unscientific to judge a paper by publication venue than by the quality and importance of its content. It has also been shown that publishers can manipulate the impact factor of their journals by rejecting good research that may not be cited immediately and by artificially boosting the citations received by their own journals². The pressure on scientists to publish in high impact journals may force them to concentrate on 'popular' fields of study that generate multiple citations and neglect important areas thus slowing scientific progress³. The current 'publish or perish' culture, leading to scientists competing with one and other to publish in high impact prestigious journals should be replaced by one where scientists collaborate to advance science. The recommendations made by the scientist-initiated San Francisco Declaration on Research Assessment (DORA) are important in this regard.

Another sacred cow that is under review is the claim that the clinical trial is the highest form of evidence⁴. Since these trials are conducted on highly selected populations under very stringent conditions, the results may not be readily transferable to real life conditions. The

cost of conducting such trials can only be borne by the pharmaceutical industry, which can manipulate results to suppress negative findings, magnify marginal results and even prove that drug C is better than A which is better than B which is better than C!⁵

Weaknesses in the peer-review process, such as poor quality review by reviewers who receive no payment or credit for their work, and biased review by competitors who may suppress or trash rival research has challenged the objectivity and standard of this time-honored method of scientific evaluation. Innovative platforms such as open review with the identity of the reviewer publicly available and pre-review publication have tried to make the process of peer review more collaborative and transparent. Author publication, with open post publication peer review by scientists, will have many benefits and eliminate the need for the host of low-impact, open source journals⁶.

We are facing interesting times in academic publication and it is likely that a major shakeup is necessary to resolve the existing conflicts of interests between authors, reviewers, journal editors and publishers, find new ways to evaluate scientific quality both before and after publication and reduce the cost of scientific communication⁷.

We hope that the new paradigms will nurture researchers focused on acquisition of new knowledge and service to society rather than those obsessed with publication in high impact journals.

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