

Selecting science journals: riddles and revelations

The Guest Editorial by Lakhota¹ addresses an important issue of the sinking quality of science papers. The journal publication model involves three stakeholders – scientists who provide papers, agencies that publish/circulate papers, and institutions that subscribe to the end-product. Journal production is a profitable venture as it reveals invaluable inventions and discoveries to society². Elsevier, for example, is one of the largest publishers in the world and it owns prestigious periodicals such as *Lancet* and *Cell*. It publishes nearly 380,000 articles via 2500 journals each year. In 2014 alone, the revenue of Elsevier reached USD 2.8 billion (www.ft.com/intl/cms/s/0/93138f3e-87d6-11e5-90de-f44762bf9896).

Due to the lucrative market potential, numerous open access (OA) journals have popped up in recent years to exploit the publishing prospects. This inspired a librarian from the University of Colorado, Denver, USA, to start a blog that lists the names of 923 publishers and 882 journals blamed as predatory (<https://scholarlyoa.com/2016/01/05/bealls-list>). After *Nature* and the *New York Times* portrayed the blog, the catch phrase ‘predatory journal’ propagated in debates. Many articles have been written on this unpleasant academic topic, but critiques argue that it does not give a final verdict on the predatory journal controversy, since the blog is basically biased towards the concept of OA (<http://crln.acrl.org/content/76/3/132.full>).

If journals are predatory, what do they prey upon? If scholars are preys, are they aware of being preyed? Or do they become willful preys with invites from predators? A recent paper analysed the authors’ nationality in some predatory OA pharmacy journals and found India to lead the trend, followed by Nigeria and Pakistan³. What is the reason for Indian scholars fuelling such an ugly trend? Should they be blamed? All scholars wish to see their papers published sooner than later. As pointed out by Lakhota¹, most academic institutions including the University Grants Commission recognize journals covered by ISSN, *Scopus* and such databases. *Scopus* is one of the largest citation databases for peer-reviewed literature and many predatory journals are included there. The new OA journals that carry fancy names offer

faster service. So authors choose them to quickly publish papers to get grants, promotions and recognitions. There appears to be no official science policy in India to discourage this hastily evolving trend. Scholars therefore do not feel like being preyed. The journals backed by some academics have no remorse since they please their clients by publishing quickly for money without peer-review. So, where is the ‘predator–prey link’ in this publishing episode? Nonetheless, I observe an ‘obligate symbiosis’, where two entities (journals and writers) develop reciprocal alliance for mutual benefit due to lack of regulations leading to scientific degradation. The label ‘predatory’ for any science journal is therefore illogical. Instead, it can be legibly called ‘low quality journal’.

Numerous colleges, universities and research institutions in India operate such low-quality journals since they get professional recognition, which is similar to ‘something is better than nothing’. The National Assessment and Accreditation Council that evaluates institutions of higher education even gives positive points for such journals. I have reviewed several doctoral theses from India for over a decade, and all accompanied by low-quality papers. I have suggested in my reports to the Controllers of Exams of various universities to implement a policy mandating students to publish at least one research paper per thesis in *Current Science*, but see no action. When the system (sponsors, institutions and accreditors) recognizes low-quality publications, expecting scholars to refrain is in fact counterproductive.

One thing is clear that the OA journals may dominate the future due to rapid growth in technology. An article in *Nature*⁴ stated that 11% of the world’s science articles have become fully OA by 2011. It added that a paper published in *Cell Reports* (impact factor (IF) 8.358) that costs an author USD 5000 may cost USD 1350 in *PLoS ONE* (IF 3.234), while *PeerJ* (IF 2.112) can offer unlimited papers for USD 299 as one time bill⁴. Whether or not a journal meets scientific quality, even the high-impact OA journals apparently predate on the pockets of authors; some may oblige with the support of big grants, while many cashless scholars may not afford it.

Evaluating the quality of science papers is not an easy task due to multifaceted issues. Hence institutions often imply the IF criteria to appraise quality. Some argue that the IF analysis may be distorted⁵. Anyway science cannot progress without rational inquiry; so debates will continue. Although the IF notion seems to be a legitimate choice, is there an alternative? There are some journals with better peer-reviews that do not charge money. An example is the *Journal of Bombay Natural History Society*, which is one of India’s oldest science journals in operation since 1886 (www.bnhsjournal.org). It has no IF owing to less aggressive marketing and low circulation. Yet, many great scholars have published papers there. Authors may otherwise search for such science journals that are offered in India.

The 2014 JCR has listed 100 journals from India, starting with the *Journal of Food Science and Technology* (IF 2.203) and ending with *Journal of the Anatomical Society of India* (IF 0.042). Other scholarly publications such as *Journal of Biosciences* (IF 2.064), *Indian Journal of Medical Research* (1.396) and *Current Science* (0.926) are among the top 20 listed in JCR. If scholars target these 100 journals, the low-quality crunch will lessen while our journals can enhance citations leading to ultimate IF increase in future. As Carl Sagan once said, ‘science is a way to not fool ourselves’. Therefore I am optimistic that sponsors, institutions and accreditors in India will rejuvenate a resilient science policy inspiring scholars to publish high-quality articles to heighten the growth of science.

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3. Xia, J., Harmon, J., Connolly, K., Donnelly, R., Anderson, M. and Howard, H., *J. Assoc. Inf. Sci. Technol.*, 2015, **66**, 1406–1417.
4. Van Noorden, R., *Nature*, 2013, **495**, 426–429.
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