

Hygeia :: journal for drugs and medicines

April 2014 - September 2014

OPEN ACCESS

A half yearly scientific, international, open access journal for drugs and medicines

Article section: Editorial

DOI: 10.15254/H.J.D.Med.6.2014.8



Indian Journals and the Tyranny of Impact Factor

Prof.MK Unnikrishnan M.Pharm, PhD

Manipal College of Pharmaceutical Sciences, Manipal University, Manipal 576 104 INDIA

There was a time when fairly descriptive accounts were considered good enough to evaluate people, situations and outcomes. But not anymore! The clamour for transparency, accountability and equal opportunity have increased the democratic burden in the dispensation of justice. In India, for instance, it has become essential to rank a candidate's entrance examination scores down to the second or third decimal for allotting a medical seat.

Such absurd demands for accuracy in day to day transactions brings to my mind a good friend of mine, back home in my village, who depended on agriculture for his livelihood. He used to sport a curious vintage HMT watch, (analog of course) with only the hour hand. For some reason, he had not bothered to replace the broken minute hand. When I asked him why, he said that minutes do not matter to a farmer. "We think in seasons... I do not even need a watch. A calendar is more than enough to work in the farm. "

Going back to the question of accuracy, I wonder how the third decimal place in the entrance exam score would improve our ability to predict the knowledge, skills or attitudes of a would-be doctor. Everybody, including those who conduct the entrance exam, knows that it is only a convenient sham. And yet, nobody seems to doubt the sanctity of exam grades. We, as a nation, have been brought up worshipping examinations. Why should you be surprised that Indians almost always bag top prizes in the Spelling bee competitions in the USA?

Accuracy of a measuring instrument has become more important than its relevance, reliability or reproducibility. The same is true for the impact factor that rules the fate of science journals. Ever since Eugene Garfield introduced the Impact factor, the journals have all gone crazy, just like Indians in the rat race for medical seats, trying every trick to enhance their impact and respectability.



For Correspondence: unnikrishnamazhuvancherry@gmail.com

Contact: 0091 9739316312

Hygeia.J.D.Med. Vol.6 (1), April 2014 © 2014, all rights reserved.

Hygeia journal for drugs and medicines, 2229 3590, 0975 6221

DOI: 10.15254/H.J.D.Med.6.2014.8

What is impact factor after all? It is merely a linear quantity, roughly equal to the average number of times an article (in a given journal) is cited during a window period. Impact factor changes every year. The competitive world of publishing thrives by doing what it can to outdo rivals.

Let us see how the impact factor distorts reality. *Acta crystallographica (Section A)* increased its impact from about 2 to almost 50 in a single year by publishing a freak article that won over 6500-citations. Another journal doubled its impact factor by publishing an editorial, citing all its papers published during the previous two years, as a mark of protest against the absurdity of bibliometric assessments. One of my colleagues, who submitted a paper to a certain journal, was told that his article would be considered only if it cited a minimum number of articles published by the same journal.

Comparing journals from different disciplines, on the basis of the impact factor, would be like comparing apples with oranges. There are disciplines, for example biology, that generate a much higher volume of literature than others. For instance, a mathematics journal would have a much lower impact factor than a biology journal, simply because there are far more papers in biology than in mathematics. Journals that give priority to reviews will automatically have a higher impact factor than journals that prefer to publish a higher proportion of original papers.

The scholarly content of a journal alone cannot guarantee a high impact factor. Accessibility is equally important. A journal should be read widely if it has to win high citation counts. However, in order to be read widely, it must be available, either in print or in soft copy, to scientists all around the world. Poorer countries like India cannot afford many elite journals because of the prohibitive subscription costs.

There is already a great deal of injustice in scientific publishing. To quote an eminent journalist George Monbiot in *Guardian*:

“Who are the most ruthless capitalists in the western world? Whose monopolistic practices make Walmart look like a corner shop and Rupert Murdoch a socialist?.... my vote goes not to the banks, the oil companies or the health insurers, but..to academic publishers.”
(<http://www.theguardian.com/commentisfree/2011/aug/29/academic-publishers-murdoch-socialist>)

Elsevier would put any media tycoon to shame! The popular journals and newspapers in the lay press pay authors for contributions. Elsevier journals, on the other hand, thrive on material supplied, reviewed and edited for free. Many science journals accept an article in an almost print-ready format. And yet these journals cost a fortune to the subscriber. The free open access model, in which authors pay to publish, came up as an alternative. Such free-to-read journals are more accessible and win more citations, but authors from developing countries like India cannot afford to pay the hefty journal fee. A good open access journal would charge around \$1500 for publishing a single article. (<http://www.biomedcentral.com/about/apcfaq/howmuch>).

India has its own journals, but the best papers by Indians are invariably published in foreign journals. This has been described as the Matthew effect, a biblical maxim, which says that the rich become richer and the poor poorer. An eminent academician recently lamented the irony of reputed Indian scientists, who serve the editorial boards of important Indian journals, sending their best papers to foreign journals. It is unfortunate that Indian research funded by Indian tax payers should feed the Elsevier conglomerate.

Even reputed Indian journals such as *Current Science*, in spite of following an open access policy, lose out to foreign journals that charge hefty subscription fees. *Journal of Genetics*, the oldest English journal in genetics, founded way back in 1910, started in India by none other than JBS Haldane, has now fallen behind many fledgling foreign journals in the same discipline. Even a glorious history and a great reputation cannot save Indian journals from the seductive lure of the impact factor.

Why this scramble for high impact journals? One major reason is the relatively recent trend where material rewards such as salaries and promotions are being linked to performance appraisals that employ measurable criteria. Impact factors come in handy because numerical quantities are amenable to arithmetical manipulation and easy ranking.

When promotions are linked to impact factor (easily and accurately measurable) it is not surprising that even the editorial boards abandon their own journals. The situation is reminiscent of the infamous McNamara Fallacy in which the measurable is made important without making the important measurable. Measurability is the hallmark of contemporary value systems. You cannot convince the masters of policy unless standards are articulated in convenient numbers. Such brutal objectivity is killing the Indian identity and nurturing the Western domination in science.