

## Journal articles

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*There are various parties to an article published in a journal – author, journal, editor, reviewer and reader. Authors should be cautious. Editors should be proactive. Reviewers should be honest. Journals should not be deceptive. Readers should be selective. One has to be careful about predator publishers. The established journals should take measures so that the authors are not driven to predatory journals. Then the avowed objective of dissemination of knowledge and scientific advancement will be achieved.*

### Publication of articles

An article published in a journal involves various parties – author, journal, editor, reviewer and reader. Several steps are involved between the submission of an article by the author in physical or electronic form and the print or electronic version that the reader sees finally. Author submits an article to a journal of his/her choice. The editor of the journal assigns it to a member of the editorial team to assess the suitability and decides either to reject it outright as not suitable for that journal; ask the author to submit the article under a different category suitably modifying it to the format of the journal; publish without any further referral to a reviewer, or send it to one or more reviewers for evaluation. The reviewer(s), who are supposed to be experts in the field will review the article for its content, appropriateness of method and analysis, discussion, conclusion, etc. and send their remarks and recommendations back to the editor. The editor then will forward the comments, if any, to the author for his response and take a final decision. The reader will decide whether it is worth reading, preserving, discarding or skipping the article.

The time taken for the whole process from submission to acceptance and then publishing varies in time from journal to journal. Generally it may take a few months to more than a year – depending on the demand, priority, type of article, editorial policy, etc. and frequency of the journal.

With the explosion of journals there seems to be an exponential growth of the authors as well. The acceptance rate varies from journal to journal – *Indian Journal of Psychiatry* is 26% for 2013 and *Indian Journal of Psychological Medicine* is 44% for 2013, according to the publishers' display<sup>1,2</sup>. It is estimated that about 1.5 million articles clear various processes and get published globally

and the average acceptance rate is 50% (ref. 3).

The status of author, editor and reviewer has changed over the times. Earlier, there were lesser number of authors. With the Medical Council of India (MCI) specifying the minimum number of publications in indexed journals at every step of ascendancy to the top of hierarchy in the academic field, there is no alternative for the teaching faculty except to publish articles. It is publish or perish for them at every step of the academic career irrespective of capability and interest. There is an increase in the number of indexed journals also. Thus there is scope for the authors to choose and select the journals for publication of their articles. As all journals are not equal with regard to quality in the eyes of the reader, there is scope for discretion for the author as well. The choice depends on the necessity – one may choose a journal with minimal rejection rate in addition to quick publication time. After reaching the target of minimum number of required publications, most of the faculty at various institutions call it a day. For the rest of them, a minority, it becomes an addiction. They will aim for more number of publications. Most authors are committed though it is not uncommon to come across authors citing the articles and journals in which their work is published. The number of authors from medical profession is less because of pre-occupation with the duty of treating patients. There is a difference in the number of articles published between medical departments with and without postgraduate (PG) courses. This is partly because, the thesis work of PG students is the fodder for many articles and presentations of their respective guides. On the other hand, departments without PG courses, do not have this advantage. If any person from such a department publishes a paper, it is entirely his/her work. There is no mechanism or normalizing

procedure while valuating two or more individuals from medical institutions with or without PG courses.

The editor and his team can always play politics in publishing. An editor may be biased and can veto the author, and reviewer.

The review system has been present for a long time in one form or another<sup>3</sup>. The review system in most journals now is either single-blind or double-blind. In the former, the author does not know who the reviewer is. This can lead to bias. As an improvement, double-blind system of reviewing evolved. Here both the author and reviewer do not know the identity of each other. Thus double-blind reviewing avoids bias. However, it is still possible for reviewers to guess the identity of the author as they are experts in the field. An open system where anybody can question the whole process of publication (as under the RTI act) may drastically improve the health of the journals and accountability of those concerned. Over the years much improvement has crept in – the system has become more scientific. When something becomes more and more of a science, the art of malpractice cannot be far off. Between January and June 2013, *Science* contributing correspondent John Bohannon submitted 304 fake research papers to open access journals. The papers were designed with such grave scientific flaws that they should have been rejected immediately by editors and peer reviewers. The highest number of acceptances was from journals based in India, where academics are under intense pressure to publish in order to get promotions<sup>4,5</sup>.

Journals are of various types and there is an explosion of their number in recent times. Journal publishing has become a commercial and lucrative activity to some. With high price of the journals and shrinking or static budgets of many institutions, the concept of open access journals has crept in. The desire for wider

readership and spreading of knowledge was another cause. Rapid advances of the internet, and its easy availability have fuelled this. The term 'predatory open access publishing' has gained currency. This came into existence by the pioneering work of Jeffery Beall, a librarian at the University of Colorado, USA<sup>6</sup>. Some of these types of journals falsely claim indexation. He compiled a list of such journals, which is ever expanding<sup>7</sup>.

Most of the journals have streamlined the procedure of submission, reviewing, editing, etc. Many journals now require on-line submission of manuscripts. The author has the option of suggesting a list of reviewers. Further, the opinion of the reviewer is to be given in the stipulated format. The author can view the comments and reply to them on-line. All these are time-bound. This contributes to elimination of arbitrariness at different levels to a large extent. Nevertheless, abrasions do occur as shown earlier.

How does a reader decide what to read? This is a complex issue and depends on many factors which include the interest of the reader, relevance to his/her

needs/utility, familiarity of the author, topic, etc.

Doctors who do not write articles, a majority, have vast accumulated experience. Even if they communicate their experiences, they get rejected by journals due to poor sampling, methodology, write-up, etc. and thus much practical way of dealing with cases is lost.

Though the avowed objective of all – authors, editors, reviewers, journal publishers and readers is dissemination of knowledge and scientific advancement, the individual agenda may not be that lofty. In the game of one-upmanship the reader is the least and last priority, both literally and figuratively. In these days of opinion manipulation, consumerism and self-seeking experts, the readers are saddled with material that he may not need and appreciate.

So the author has to be careful in selecting the journal for his work, so that it does not end up in a predatory journal. The reviewer, without compromising on the quality, should take a holistic view without being unduly critical, before recommending rejection of an article. The

editor should be proactive and check the irrelevant comments of the reviewers. The reader should use discretion and select journals that are good and not go by some unknown indexing agency. The established journals should take measures, so that the authors are not driven to predatory journals. Then the avowed objective of all will be achieved.

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3. Gupta, M. A., *Curr. Opin.*, 2013, **105**, 159–161
4. Satendra Singh, Indian journals among 'Hall of Shame'; [meu\\_india@google-groups.com](mailto:meu_india@google-groups.com)
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6. Janodia, M. D., Dharmagadda, S., Ligade, V., Muragundi, P., Musmade, P. and Udupa, N., *Curr. Sci.*, 2013, **105**, 433–434.
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## Science, Technology and Innovation Policy 2013 of India and informal sector innovations

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*This commentary discusses the Science, Technology and Innovation Policy 2013 of India in relation to the bottom-up 'informal science'. The main intention is to see how informal innovations or informal ways of knowledge generation in the informal sector are dealt with in the new policy document. Informal economy or informal sector, which constitutes a staggering 94% of India's workforce, forms the main source of employment and livelihood. However, neither the current Science, Technology and Innovation Policy document nor any other innovation literature proposes a comprehensive policy framework that leverages the strengths of informal sector innovations.*

'Innovation' has been cited as one of the key factors imperative for development and especially for competitiveness. It no doubt plays a decisive role in the survival of business firms and is rightly recognized as a major component in the economic growth<sup>1-3</sup>. Despite its benefits, the term innovation is poorly conceptualized and its definitions ambiguously worded. Whatever the definition, the fact is that the activity of innovation takes place in a complex system whereby different knowledge sources and different factors contribute. To put it precisely,

innovations are context-specific and the systems of innovation are embedded in different institutional environments. The 'local' dynamics and difference in the institutional make-up shape and influence the overall innovation process<sup>4-6</sup>. Cultural, geographical, legislative and regulatory environment of a place can either impede or help advance the process of innovation<sup>7</sup>. Keeping in view the importance of 'local institutional dynamics' in the overall innovation process, we attempt to examine the current Science, Technology and Innovation Policy (STIP)

of India and in particular its claim on 'country and context-specific paradigms of innovations'. More precisely, we attempt to take a close look at how local ways of solving problems or informal innovations are dealt with in this policy document.

### **New paradigm of innovation**

STIP 2013 of India was unveiled at the Indian Science Congress held at Kolkata by the Prime Minister Manmohan Singh. The STIP document, which talks of new