

Opinion

Who Should Decide What is the Impact of One's Published Work?

L S SHASHIDHARA

Indian Institute of Science Education and Research, 900 NCL Innovation Park, Dr. Homi Bhabha Road, Pashan, Pune 411 008, India

(Received 03 February 2014; Accepted 08 February 2014)

Science always progresses from one milestone to the other. We work on the premise that the knowledge generated by our predecessors is either correct or wrong. If correct, we will take it further and if wrong, we would first prove it is wrong and then make attempts to provide the correct version. Earlier days, it used to take centuries for someone to make a big leap in knowledge due to fewer scientists in the world and less-efficient methods of communicating one's discovery to the rest of the world. Post 19th Century, Scientific research is an organized social endeavour. With very large number of scientists producing new knowledge everyday, need for more reliable, fast and more organized method of science communication was felt and led to the foundation of our current peer-reviewed publication system.

When Newton said "If I have seen further, it is by standing upon the shoulders of *giants*", he was acknowledging the work of his predecessor-scientists. Many scientists had contributed to the prior-knowledge that led Newton to discover more. In the current times too, every scientist contributes in her/his own way and helps to push the frontiers of knowledge further. It is quite possible that one scientist provides a new direction, which may lead to recognition of that person above everyone else.

However, this in no way would and should diminish the importance of others' contributions. Unfortunately, the current importance given to impact factor has hidden (mis)-understanding that (i) only Newtons standing on the giants are more important and giants themselves are dispensable!, (ii) whatever is published in certain journals are landmark papers and only those are the real science and (iii) only certain topics/methodology of science are more important.

Even more dangerous is to equate the impact of the journal's contribution over several years to all the papers published in that journal. It is, however, likely that a journal consistently publishing landmark papers will have better peer-review system, and hence all papers published in those journals are of high-standard. While this should be acknowledged, one should neither ignore the works of giants in other journals nor those areas of science which are not in the radar of so called "high impact journals". Best way to judge contribution of a scientist for jobs, further research funding, promotions, awards etc. is to identify the "Newton" in that field, who will tell rest of the world how important the other person's contribution in furthering that domain of science was.