

View

Running Behind Impact Factors: A Realization

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Whenever we publish research articles, some one tends to ask us "What is the impact factor of the journal (!)?" But nevertheless they are concerned about the impact of our research on the society. Now a day, it is a trend to publish papers in journals having high impact factors. I always wonder, how an impact factor of the journal determines the quality of an individual article. In this column, I would like to share some of my views on impact factors.

According to a source [1], the impact factor of a journal is determined from the ratio between the numbers of citations of articles and the number of articles published in a particular period. How about the self-citation of articles by a journal? There were several occasions that accounts for the rise in impact factors merely because of self-citations [2]. Even the editors themselves make obligations to the authors to cite articles from their journals.

We all well know that Professor and Chemistry Nobel Laureate Dr. Daniel Shechtman have published his first breakthrough article on Quasi Crystals in a journal after lots of struggles. Over the period it has been cited for more than 4,500 times and still counting [3]. But I wonder why the journal on talk has not received an impact factor that is more than 10 [4].

On the other hand, the first two articles on electro-spinning process by Prof. Dr. Darrel H. Reneker have been cited over 3000 times [3]. But surprisingly, the journal in which he has published his first article on electrospun fibers in 1995 has an impact factor just over 1 (as of 2011) [5]. Not to mention, the inventions of both Quasi Crystals and Electrospun Fibers have a huge impact on our society. It is

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obvious from the above examples that the impact factor is not the right measure to determine the quality of an individual article.

I wonder, how Sir Isaac Newton reacts, when he knows that his first ever report on "New theory of Light and Colors" and other 17 of his inventions were published in a journal, which currently have an impact factor between 2-3. I wonder how Charles Darwin, Michael Faraday or William Herschel feels that their articles were published in a journal that have impact factor just above 2 [6]. I believe that they wouldn't have minded even if they know about these not-so-sensible impact factors.

Of course, the climate for research funding has changed dramatically time to time. In most cases, the run behind the impact factor is due to requirements by the funding agencies or universities. One may easily feel the stress from the funding agencies as well as the universities to publish their articles in high impact factors, which I think, a curse to the scientific community. This is due to the ranking system of universities, in most cases, which are determined with respect to the number of publications in high impact factor journals.

There was a time, where the researchers are known for their great inventions. But the current scenario is something strange and different. If you ask someone about a Professor or researcher, the answer will be "yes, he/she is good. Because he/she has published articles in high impact journals". The young generation and the

funding agencies should realize that the priority should be given to the innovative ideas rather than these not-so-meaningful numbers. While the inspirations of great scientists lead the young researchers to an innovative path, the circumstances make us to run behind the impact factors. It has to be changed. Otherwise, the science will be treated as merely a number game.

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