KOME − An International Journal of Pure Communication Inquiry
Volume 5 Issue 2, p. 71-72.

Published by the Hungarian Communication Studies Association
DOI: 10.17646/KOME.75692.91

Author's index

Shahryar Sorooshian
Universiti Malaysia Pahang, Faculty of Industrial Management, Malaysia

This letter presents a new mathematical index (Author's index; A_{index}) for comparison of authors/scholars. The index was a medal winner in ISEBA 2017; an annual international exhibition and competition for social sciences innovation in Malaysia.

Comparison of scholars is a need for performance appraisal in scientific communities. However, only a small number of indexes have been introduced by the scientific communities themselves. Almost all the introduced indexes (e.g., SCI, Hirsch's or h-index, Egghe's g-index, M-Quotient, Zhang's e-index, etc.) consider only citation impact of the authors' works. Very few indices consider the productivity of the authors. The A_{index} is among the first authorship metrics that attempts to measure citation impact of the author's publications together with his/her productivity. The A_{index} minimize the disadvantages of currently available indexes; therefore, making it a fairer tool for comparison of scholars.

As shown in equation 1, the A_{index} is based on the number of citations that an author received for his/her publications. Considering fairness and ethics of citation, the value of self-citation in this formula is lower. Different rank/level of journals is also considered in the formula, as the Q level of the journal in criteria in the A_{index}. Q could be based on current calculation of Scopus or Thomson Reuters (ISI) or any other indexing services. If a journal is among the first top quarter of the journals in the same field of publication, the Q will be the highest, 4. For the second quartered journal and the third quartered journals, Q will be 3 and 2 respectively. Finally, if the journal is in the last quarter, the Q can be 1. Mostly the quality ranking of the journal will be published the year following publication; for example, if you publish in 2016, the quality ranking of the journal for 2016 will be calculated in 2017. The better quality the ranking, the higher the Q – a factor that shows higher productivity for an author. Number of authors in a paper is another criterion for evaluating the productivity of the scholar. The fewer named team members on a paper, the higher the productivity of a scholar. Last, but not least, comes the period of publishing and academic working. A scholar with more publications in a shorter period of time is more productive.

Address for Correspondence: Shahryar Sorooshian. Email: sorooshian[at]gmail.com
Article received on the 27th June, 2017. Article accepted on the 14th July, 2017.
Conflict of Interest: The author decleares no conflict of interests.

$$A_{index} = \int_{Y_0}^{Y_N} \frac{\left((\sum_N C - \frac{\sum_N SC}{2}) \times \sum_N Q\right)}{\frac{\sum_N A}{N}} Y \; dY \qquad (1)$$

Where:
Y: duration of calculation
Y_0: Starting year of the duration of calculation: for example, academic activity, or year of the first publication
Y_N: Ending year of the duration of calculation: for example, academic activity, or year of the last publication
C: citation
SC: Self citation
A: number of authors
N: Total number of publication
Q: Quality mark of the journal

The validity of the new index was examined by peers of the ISEBA 2017. Formula 2 is the modified A_{index} with considering the comments from fellow researchers participating in ISEBA 2017. The introduced modification considers the academic seniority of the authors; as publication output expectations are higher for senior authors. Now the index could be suggested to the scientific society, as a feasible, valid, and fair tool capable of quantifying authors'/scholars' performance.

$$A_{index} = \int_{Y_0}^{Y_N} \sqrt{\frac{\left((\sum_N C - \frac{\sum_N SC}{2}) \times \sum_N Q\right)}{\frac{\sum_N A}{N}}} Y \; dY \qquad (2)$$