LETTER TO THE EDITOR

Determination of the value of 'c' pertaining to Lotka's law

Bibliometric studies where Lotka's law is finding a place are found quite often in LIS literature nowadays. For example, in the December 2017 issue of *Annals of Library and Information Studies* two articles have appeared on Lotka's law¹⁻².

Alfred J Lotka formulated his law in 1926³. The law is algebraically represented as $\mathbf{x}^{n}\mathbf{y} = \mathbf{c}$ where \mathbf{x} stands for the number of articles, \mathbf{y} for the number of authors and \mathbf{n} and \mathbf{c} are unknown quantities.

In a dataset the values of \mathbf{x} and \mathbf{y} are known. The value of \mathbf{c} needs to be determined to find the value of \mathbf{n} . Pao⁴ developed a procedure for determining the value of \mathbf{c} . Pao's procedure requires complex mathematical calculation, and the values obtained are not realistic. The value of \mathbf{c} is found to be less than 1. We know that the values of \mathbf{x} , \mathbf{y} and \mathbf{n} are all more than 1. Hence, logically the value of \mathbf{c} cannot become less than 1, but in Pao's procedure it is always less than 1. Realising this Sen⁵ devised a simple procedure for determining the realistic value of \mathbf{c} . In their article², Shehbaz Hussain Naqvi and Nishat Fatima have followed the same method as described by Sen for determining the value of \mathbf{c} without citing his

paper. This is a serious omission. The authors should take care in future to avoid such omission.

References

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