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Modified Kardashian index (MK-index): A measure of discrepant social media profile for scientists

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A British geneticist Neil Hall (2014) compared certain scientists Twitter followers with their number of article citations on Web of Science. He developed an index and named Kardashian index (K-Index). K-index is similar to h-index. However, instead of author productivity, it measures the discrepancy between a scientist's social media profile and publication record. The number of a scientist citation in ISI Web of Science is used to measure the k-index. Conversely, these numbers are not freely available. Therefore, I offered a modified K-index based on Google Scholar citations which is freely accessible through http://scholar.google.com/ Ale Ebrahim et al. (2014) developed an equation for equality between Google Scholar citations and ISI Web of Science citations (Equation 1).

$$\textit{Equation 1 \quad ISI Citation = 5.961 + 0.460 (Google Scholar citation)}$$

Neil Hall (2014) formula for K-index is shown in Equation 2:

$$\textit{Equation 2 \quad K-index} = F(a)/F(c)$$

Where F(a) is the actual number of Twitter followers and F(c) is the calculated social impact of the author based on his/her ISI Web of Science citations which be calculated by Equation 3:

$$\textit{Equation 3 \quad } F = 43.3\, C^{0.32}$$

Where C is the number of scientist citations in ISI Web of Science.

By merging Equation 1 and Equation 3 a new F can be calculated based on the scientist Google Scholar citations (Equation 4):

$$\textit{Equation 4 \quad } F(c)_m = 43.3\, (5.961 + 0.460 C_{Gs})^{0.32}$$

Where $F(c)_m$ is the calculated social impact of the author based on the scientist Google Scholar citations (C_{Gs}). The MK-Index can be defined as (Equation 5):

$$\textit{Equation 5 \quad MK-index} = F(a)/F(c)_m$$

"A high K-index is a warning to the community that researcher X may have built their public profile on shaky foundations; while a very low K-index suggests that a scientist is being undervalued (Hall, 2014)." K-Index based on ISI Web of Science (WoS) citations greater than five can be considered 'Science Kardashians'.

References

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