

*Some comments on: Mao et al. (2018)
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Yuh-Shan Ho

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Some comments on: Mao et al. (2018) “Bibliometric analysis of insights into soil remediation” *Journal of Soils and Sediments*, 18(7): 2520–2534

Yuh-Shan Ho¹

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Abstract

In order to improve the bias of using the Web of Science databases for bibliometric studies, the “front page” has been proposed by Ho’s group in 2012. Using the “front page” as the filter resulted in a huge difference compared to the method from the original paper of Mao et al. Furthermore, a cited reference plays an important role in a published paper. Readers are interested in the paper’s statements and might find useful information from the following researches. The reference section is an important part in a paper; however, it was easily ignored by the authors. This comment also offered information for citing the original idea of publication indicators used for the comparison of countries’ and institutions’ publication performances.

Keywords Front page · Publication indicators · Citations · Web of science · TC_{year}

Mao et al. (2018) recently published a paper in this journal entitled “Bibliometric analysis of insights into soil remediation.” The authors of this publication stated in Section 2.1 Data collection that “This study used keywords as follows: “contaminated soil” OR “soil contamination*” OR “soil pollution*” OR “polluted soil”, AND (remediat* OR control* OR recover* OR repair* OR *remediation), to cover all related information. In the Science Citation Index Expanded and Social Science Citation Index databases, 8571 English publications were retrieved with selected information (including title, keywords, abstract, introduction, author information, journals, citation, and institutional affiliation).”

Using the same methods listed by Mao et al. (2018), we found 8397 English documents which included 7998 articles. In our detailed examination, 1440, 906, and 319 out of 13,796 English articles made no mention of any of (“contaminated soil, soil contamination*, soil pollution*, and polluted soil”); (“remediat*, control*, recover*, repair*, and *remediation”); and (“contaminated soil, soil contamination*, soil pollution*, polluted soil,” “remediat*, control*, recover*, repair*, and

remediation”) in the articles’ “front page” (Fu et al. 2012), including the document titles, the abstracts, and the author keywords respectively. Only 1331 English articles include (contaminated soil, soil contamination, soil pollution*, or polluted soil), and any of (remediat*, control*, recover*, repair*, and *remediation) in their “front page.” These results with 1331 English articles are thus very different from those in the original paper by Mao et al. (2018) with 8571 English articles. Since the authors’ methodology yields inaccurate results, future authors will need to revisit their analysis in the original paper (Mao et al. 2018). Such serious problems in bibliometric studies using Web of Science have been pointed out in recent years and published in journals such as *Environmental Science and Pollution Research* (Ho 2018a), *Sustainability* (Ho 2018b), and *Renewable & Sustainable Energy Reviews* (Ho 2018c). An editorial material entitled “Comments on ‘Past, current and future of biomass energy research: A bibliometric analysis’ by Mao et al. (2015b)” was published by Ho (2018c). However, Mao et al. do not appear to care about these problems and the paper in *Journal of Soils and Sediments* together with a series bibliometric papers published in *Renewable & Sustainable Energy Reviews* with an impact factor of 9.184 in 2017 all contain the same mistakes (Mao et al. 2015a, b; Wang et al. 2016; Wang et al. 2017; Geng et al. 2017).

In section “3.3 Contribution of country,” Mao et al. (2015a, b) present “Table 2: The top 10 most productive countries’

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✉ Yuh-Shan Ho
ysho@asia.edu.tw

¹ Trend Research Centre, Asia University, No. 500, Lioufeng Road, Wufeng, Taichung County 41354, Taiwan

performances.” Here, Ho’s group first proposed six publication indicators, namely, total number of articles, single country articles, internationally collaborative articles, first author articles, corresponding author articles, and percentage of internationally collaborative articles in total articles of a country as well as h -index calculated by TC_{year} to compare research performance of countries in a table (Wang et al. 2011; Fu et al. 2013).

In Section “3.5 Performance of institutions,” Mao et al. (2015a, b) present that “Table 3. The performances of the top 10 most productive institutes.” Again, Ho’s group firstly proposed five publication indicators such as number of total articles, number of single institute articles, inter-institutionally collaborative articles, first author articles, and corresponding author articles as well as percentage of inter-institutionally collaborative articles in total articles for each institute to compare research performance of institutions in a table to compare publication performance of institutes (Han and Ho 2011; Tanaka and Ho 2011).

It has been pointed out that the Web of Science database was originally designed for researchers to find literatures but not to carry out bibliometric studies (Ho 2018a, b). Thus, it is always necessary to have an appropriate bibliometric treatment when using the Web of Science database (Ho 2018a, b). Research is the way to the truth so that innovations are important to find something new or a new understanding to approach the truth. It is not helpful for researchers to duplicate the same problem again and again without improving their research. In addition, citing an original paper not only respects those authors who presented a novel idea, but it also directs readers to the details of the original work (Ho 2018a, c). Mao et al. used the wrong processes and data to publish “Bibliometric analysis of insights into soil remediation” in *Journal of Soils and Sediments*, and this may result in misleading readers of the journal. In my view, Mao et al. should have used an appropriate bibliometric method for their study and cited the original papers for all of the indicators and concepts that they discuss, thereby providing greater accuracy and more detailed information about the bibliometric concepts that they employed.

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