

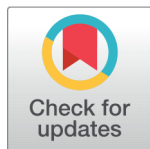
Irrelevant citations in medical and life science literature

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Publishing papers in highly ranked journals can be recognised as an outstanding achievement; however, the paper and author's impact remain concealed unless the paper is cited. Citations are usually used to assess scientists for productivity and work resonance. The h-index, which was suggested by the American physicist Jorge Hirsch in 2005,¹ is the most common index to describe the scientific output of a researcher and it mainly relies on citations number and authored publications. Many employment and funding organisations use citation-based indices such as h-index to accept employees, grant awards, and in academic promotions. Meanwhile, some papers attempt the usefulness of the h-index in estimating the scientific reputation due to wrong citing problems. In academic literature, citations can be defined as “the reference to the information source.” And, in this context, citations should mainly be relevant and transparent besides other important rules highlighted by Penders (2018).² Occasionally, authors may cite unrelated or non-original sources as references for the information they put in their papers, which can be called “irrelevant citation”. Although some are excusable, irrelevant citation can be unjustified or even unethical behavior in some cases. Figure 1 presents probable causes of irrelevant citations that are commonly seen in the open literature.



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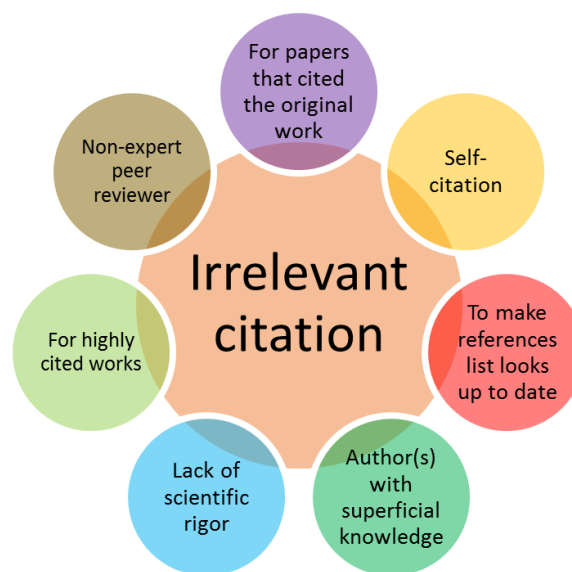


Figure 1 Probable causes and reasons of irrelevant citations.³

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Citing papers that cited the original work is the most worst scenario of wrong citation when the authors cite a work cited the original work instead of the original work itself. In many cases, self-citation can also be a cause of irrelevant citation when the author cites his/her previous unrelated works to increase citations. In addition, when some authors submit to reputed journals where only novel works based on recent advances are considered; they may, unfortunately, use irrelevant sources to rejuvenate the reference list.

Authors with superficial knowledge and young authors may miss recent papers or cite papers that are contradicted instead of papers representing the current knowledge in the field and this can also account for irrelevant citation. However, papers from recognised researchers and teams that contain irrelevant citations may reflect a lack of scientific rigor or the influence of time restrictions. Logical fallacies or bias can also contribute to the irrelevant citation when some authors tend to cite papers that are highly cited instead of non-cited works even if the non-cited paper is more relevant. This might be ascribed to recognising that the authors or teams of the highly cited papers are well-known in the field. Furthermore, non-expert and non-professional peer-reviewers can also contribute to irrelevant citations in many ways (e.g., when they cannot distinguish current and relevant resources easily or when they ask authors to cite their own works despite irrelevance).

The research in medical and life sciences mainly focuses on the disease, its diagnosis and management. Accordingly, it should be as accurate as possible. Irrelevant citations in medical and life science literature can lead to inaccurate medical research and knowledge that directly touch human life. Therefore, such citations must be avoided. The collaboration between both journal editors and peer-reviewers can reduce citing errors and result in more accurate citations. The journal editor can reduce irrelevant citations, in-house, by examining the reference list carefully before sending manuscripts to external peers for review. The expert peer-reviewer with an in-depth review can identify and comment on the irrelevant citation as well.

To sum up, “irrelevant citation” is a term to describe wrong citing by authors which might occur intentionally or accidentally. In almost all cases, this citation error can lead to inaccurate knowledge and fogged literature. In medical and life sciences, irrelevant citations may result in serious outcomes touching human’s life and, thus, it should be evaded. Both journal editors and expert peer-reviewer can work together to override this issue.

DECLARATIONS

Conflict of interest

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