



## LETTERS TO THE EDITOR

### Reply to: Artificial intelligence applied to ophthalmology and optometry: A citation network analysis



The author read with avid interest the article by Martínez-Pérez *et al.*<sup>1</sup> As the ophthalmic and optometric scientific literature has rapidly expanded,<sup>2</sup> bibliometric analyses have become increasingly necessary to parse articles impactful to their respective fields.<sup>3</sup> With artificial intelligence adopting a greater role in vision research, Martínez-Pérez and colleagues provide a timely investigation identifying key contributors and primary areas of research in the field.<sup>1</sup>

However, there are some concerns that warrant consideration with respect to this analysis. First, there appears to be a discrepancy between the number of analyzed publications reported in the abstract (1086) and the number reported in the main text (1138). Second, the search strategy employed by the authors, although ostensibly robust, is not described clearly enough to be easily replicable. For example, no explanation is offered for which collections in the Web of Science (WOS) database were searched. WOS provides multiple repositories of publication data including the WOS Core Collection, KCI-Korean Journal Database, and MEDLINE. Altering the selection of these distinct databases would affect the number of results returned. Along these lines, results can be affected by the specific fields that are searched. Researchers may query “All Fields”, which encompasses all searchable fields (e.g., Title, Affiliation, Publisher, etc.), or can search by “Topic”, which includes Title, Abstract, Author Keywords, and Keywords Plus.

To highlight these potential differences, the author of this Letter to the Editor queried the WOS database using an identical search methodology (for the specified date range, 1977–December 18, 2021), but altering the aforementioned parameters. Searching all databases by “Topic” resulted in a total of 2470 publications. Restricted to only the WOS Core Collection, the search by “Topic” resulted in 666 publications. Searching “All Fields” in the WOS Core Collection resulted in 1034 publications. Of note, querying all databases by “All Fields” is unavailable.

As indicated by these findings, there is immense variability in the number of publications identified using these various

search modalities. Clarification of the exact methodology used in the investigation by Martínez-Pérez *et al.*<sup>1</sup> is important to improve confidence in the reported findings and ensure reproducibility of results by future researchers.

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### Declaration of Competing Interest

None.

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