

Web of Science Journal Citation Reports: Suppression Policy

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Citation distortion: journal self-citation and citation stacking

What is citation distortion?

Citation distortion is caused by a citation anomaly that exceeds a normal range within a journal subject category. There are two main types of journal-level citation distortion:

Journal Self-Citation

- A journal has an unusually high percentage of journal self-citations, as compared to journal non-self-citations, within the Journal Impact Factor window
- The distortion in category rank is based on analysis of all journals in all categories of the JCR ranked both with and without the inclusion of journal self-citations
- The distortion equals the percentage shift in rank with journal self-citations included versus excluded

Citation stacking

- A donor journal cites a recipient journal at an unusually high rate that is concentrated in the Journal Impact Factor window
- Citation stacking involves two or more journals

Our principles

Suppression of Journal Impact Factors

- Distortion of citations is harmful to the scholarly record
- It creates an inaccurate reflection of the connections between articles and of their contribution to the scholarly network
- Journal self-citation and citation stacking have the potential to distort the citation network and the Web of Science Journal Impact Factor (JIF)
- The JIF provides an important indicator of a journal's contribution to scholarly communication and must not be either inadvertently influenced or purposefully gamed

Adapting to respond to a changing environment

We updated our methodology and parameters for journal self-citation in 2020

- New, problematic citation networks had surfaced over time
- We used to focus on extreme outliers on the assumption that distortion of the citation network by journal self-citation was both rare and extreme

The changes make critical adjustments:

Content: we now include *out-going (citing)* as well as *in-coming (cited)* activity as part of the analysis

Context: We also now make comparisons within *each journal's category/categories*, rather than JCR edition, to better account for discipline norms

Perspective: we now look at the *level of distortion* of the citation network, not solely at the outcome of that distortion

How do we identify journal self-citation distortion?

Suppression decisions are based on analysis 2020 citation data.

We look at the contribution of self-citations to the following data :

- Total citations (TC)
- Journal Impact Factor (JIF)
- Rank in category
- % of journal self-citations in in-bound (cited) activity, and % of journal self-citations in out-bound (citing) activity

Suppressed journals represent anomalies in citation behavior and exceed normal ranges within their category.

Journals are suppressed for one year and re-evaluated with the next year's data.

How do we identify citation stacking distortion?

Suppression decisions are based on analysis of 2020 citation data.

We look at the following data:

- Donor as % of Recipient's Total Citations
- Donor as % of Recipient's JIF numerator citations
- Concentration of citations exchanged into JIF numerator
- Identification of individual item(s) in Donor journal with non-scholarly and/or near-exclusive reference to Recipient journal(s)

Suppressed journals represent anomalies in citation behavior and exceed normal ranges within their category.

Both Donor and Recipient journals are suppressed for one year and re-evaluated with the next year's data.

New journals, where citations are naturally concentrated to recent years, are not suppressed.

What do we do when we identify citation distortion?

Journals that show evidence of citation distortion will not receive a Journal Impact Factor.

- We notify publishers of suppressed journals prior to the annual JCR release.
- We report the findings of our analysis without accusations of wrongdoing.
- We give publishers the opportunity to appeal suppression decisions; appeals must be received by the defined deadline and must be data-driven – we do not consider unsupported assertions.
- Suppressed journals continue to be indexed in the Web of Science but may be re-evaluated for continued coverage.

Thank you

