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Evidence of Use of Template-Based Peer-Review Reports and Concern About Review Mills



Cyril Labbé¹, Gilles Hubert², Wendeline Swart², Guillaume Cabanac^{2,3}

1 Univ. Grenoble Alpes, CNRS, Grenoble INP, LIG

2 IRIT – University of Toulouse

3 Institut Universitaire de France



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Objective

Test methods to investigate review mills¹: various coordinated reviewer misconducts.

We studied 4 datasets of peer-review reports in search for evidence of such practices.

Datasets	Years	Number of reports	Number of articles	Report mean length	Number of reports with CST	Number of similar reports (≥0.75)
MDPI (11 journals)	2018–2025	122,831	47,593	251.5	12,430 (10.12%)	1,604 (1.31%)
PeerJ ² (7 journals)	2015–2022	12,959	6,292	504.8	1,137 (8.77%)	62 (0.48%)
NLPEER ³ (5 conferences and F1000Research)	2016, 2017, 2020, 2022	12,061	NA	356.3	951 (7.88%)	122 (1.01%)
BMJ	2021–2024	308	97	530.4	37 (12.01%)	2 (0.65%)

Design

We investigated plain-text reports only (excluding attached files). Considering ‘Round 1’ only. We computed statistics on:

- Report length,
- Common Sequences of Terms (CST),
- Similarity measures between reports.

Conclusions

- Clear evidence of template-based peer-review reports practices (limitation: copy-paste of instructions).
- The extent of these practices varies from one dataset to another. This might be due to reviewers’ practices, discrepancies in dataset sizes, to differences in scientific fields or to journals, editors or publishers’ habits.
- More openly available review reports datasets would help further characterise and understand this phenomenon.

*pid_diagnostics11050835*reviewer_2	*pid_ma14216267*reviewer_2	*pid_cancers12092690*reviewer_1	*pid_biom10030380*reviewer_1	*pid_ma12182860*reviewer_1	*pid_ma13153369*reviewer_2	*pid_ma12152411*reviewer_2	*pid_b	
10.1111/jper.12009. 2) Isola G, Polizzi A, Muraglia A, Santonocito S, Alibrandi A, Williams RC. Periodontitis activates the NLRP3 inflammasome in serum and saliva. J Periodontol. 2021 May 19. doi: 10.1002/JPER.21-0049. The authors should be better specified, at the end of the introduction section, the rational of the study and the aim of the study. In the material and methods section, should better clarify the risk of bias. Moreover, please more specify the clinicians involved in the different stages of the review. The discussion section appears well organized with the relevant paper that support the conclusions, even if the authors should better discuss the relationship between periodontitis and implant failure. The conclusion should reinforce in light of the discussions. In conclusion, I am sure that the authors are fine clinicians who achieve very nice results with their adopted protocol. However, this study, in my view does not in its current form satisfy a very high scientific requirement for publication in this journal and requests a revision before a further re-evaluation of the manuscript. Minor Comments: Abstract: Better formulate the abstract section by better describing the aim of the study Introduction: Please refer to major comments Discussion Please add a specific sentence that clarifies the results obtained in the first part of the discussion Page 15 last paragraph: Please reorganize this paragraph that is	10.1007/s00784-020-03397-z. 2) Isola G, Polizzi A, Muraglia S, Leonardi R, Lo Giudice A. Assessment of Vitamin C and Antioxidant Profiles in Saliva and Serum in Patients with Periodontitis and Ischemic Heart Disease. Nutrients. 2019 Dec 4;11(12). pii: E2956. doi: 10.3390/nu11122956 The authors should be better specified, at the end of the background section, the rational of the study and the aim of the study with the null hypothesis. 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