Reinventing Scientific Journals

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Abstract

We present what we believe are mandatory parameters for a robust
Scientific Journal in order to preserve the health of our academic
publishing system.

keywords: scientific journal, publishing system, open science

The most updated version of this paper is available at

https://osf.io/kzfmn/download

Introduction

1. *How can the community create innovative scientific journals?* [1–5]

2. In this paper, we present our *definition* of a revolutionary **Scientific Journal**, namely *Scientific Journal of the second kind*, in order to promote a discussion for a healthier scientific endeavours [6,7].

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Definitions

3. The following items in this section refer to the qualities of a Scientific Journal we believe are mandatory, taking into account a society undergoing the Informational Revolution.

4. K = the core of a scientific journal

5. I = innovation(s)

6. O = optional

7. $E_\$$ = financial ethical procedures

8. P = scientific papers

9. F_p = free to publish

10. F_r = free to read

11. F = free to publish and free to read

12. R = result(s)

13. M = scientific method

14. L = flexibility in the form of writing (regular text, items, ...)

15. U = updates

16. OR = open peer review

17. CO = open co-authoring

Setting the parameters

18. P = {M, R, I}

19. K = {P, E}

20. $F = F_p \cap F_r$

21. $O = \{\text{long context of the current research status}\}$

22. $E_\$ = \{\text{transparency for the costs and prices}\}$

23. $U = \{\text{the paper can be updated even after its publication}\}$

24. $OR = \{\text{everyone is invited to review the paper}\}$

25. $CO = \{\text{everyone is invited to co-author the paper}\}$

Scientific Journal of the first kind

26. Let S_j^1 stand for the *Scientific Journal of the first kind.*

27.
$$S_j^1 = O \cup K$$

28. $S_j^1 \cap F = \varnothing$

29. $S_j^1 \cap L = \varnothing$

30. $S_j^1 \cap U = \varnothing$

31. $S_j^1 \cap E_\$ = \varnothing$

32. $S_j^1 \cap U = \varnothing$

33. $S_j^1 \cap OR = \varnothing$

34. $S_j^1 \cap CO = \varnothing$

Scientific Journal of the second kind

35. Let S_j^2 stand for the *Scientific Journal of the second kind.*

36.
$$S_j^2 = K \cup F \cup U \cup L \cup CO \cup OR \cup E_\$$$

37. $S_j^2 \cap O = \neg \varnothing \underline{\vee} \varnothing$

Comparison

38.

$$(\neg O \underline{\vee} O) \cup K \cup F \cup U \cup L \cup CO \cup OR \cup E_\$ = S_j^2 > S_j^1 = K \cup O$$

Final Remarks

39. Let $A \equiv S_j^2$ and $B \equiv S_j^1$.

40. $A \gg B$

41. We believe stakeholders should encourage each scientist to create her/his own scientific journal.

Open Invitation

Review, add content, and **co-author** this paper [2,3].
Join the **Open Collaboration** (https://bit.ly/ojmp-slack).
Send your contribution to mplobo@uft.edu.br.

Open Science

The **latex file** for this paper together with other *supplementary files* are available [8].

Ethical conduct of research

This original work was pre-registered under the OSF Preprints [9], please cite it accordingly [10]. This will ensure that researches are conducted with integrity and intellectual honesty at all times and by all means.

Acknowledgement

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