Author’s response to reviews

Title: Publishing computational research - A review of infrastructures for reproducible and transparent scholarly communication

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27th May 2020

Dear Adam G. Dunn,

Referring to the manuscript “Publishing computational research - A review of infrastructures for reproducible and transparent scholarly communication” (Manuscript Number RIPR-D-20-00011R1).

We are grateful for the new comments and recommendations. The suggestions enabled us to improve the manuscript in a second iteration. A detailed list of changes that we applied to the article can be found below. In summary, we made the following changes. We shortened the conclusion section in the abstract as well as in the manuscript. We also revised the manuscript to remove unnecessary wording and bold formatting of text.

We are looking forward to further feedback on our revised article.

Kind regards,

Markus Konkol
Thank you for the new comments and recommendations, which helped to further improve the manuscript. Our detailed response follows point by point. As suggested, we did not track the changes.

1. The conclusion section in the abstract is unnecessarily long - consider how you might be clearer in the results and shorter in the conclusions, which are usually best when they are kept to one sentence on "what did you find" and one sentence on "what should happen next".

Answer: We revised and shortened the conclusion as well as the results section in the abstract as follows:

Results
From the eleven applications, eight allow publishers to self-host the system for free, whereas three provide paid services. Authors can submit an executable analysis using Jupyter Notebooks or R Markdown documents (10 applications support these formats). All approaches provide features to assist readers in studying the materials, e.g., one-click reproducible results or tools for manipulating the analysis parameters. Six applications allow for modifying materials after publication.

Conclusions
The applications support authors to publish reproducible research predominantly with literate programming. Concerning readers, most applications provide user interfaces to inspect and manipulate the computational analysis. The next step is to investigate the gaps identified in this review, such as the costs publishers have to expect when hosting an application, the consideration of sensitive data, and impacts on the review process.

2. Check through recent examples in the journal but I suspect that the use of bold text in the main manuscript (and I understand why you did this) is unlikely to make its way into the final version. Instead consider making the words exactly as in the table and perhaps double quotation marks, enumerate them with something like "(a)", or similar.

Answer: We removed bold formatted text. Instead, we made the words exactly as in the table, added double quotation marks, and enumerated the variables (see section Variables).

3. The conclusion section in the manuscript is also unusually long and tends to mix the discussion with the conclusion. Consider it simply as a one paragraph summary of what was done, what was found, how it extends beyond prior work, and what should happen next - perhaps four sentences or so.

Answer: We rephrased and shortened the Conclusion section as suggested.
4. Overall, the writing is still verbose and includes unnecessary, unreferenced, and casual statement like: "fortunately" and "essential" and "nonetheless", "pay off". It is still readable but would benefit from running through the entire manuscript (the results are fine) to see where words can be removed and sentences rephrased to be precise and concise. No need to track changes.

Answer: We revised the manuscript and removed unnecessary wording.