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Comment on gc-2021-13

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Community comment on "Editorial: Geoscience communication – planning to make it publishable" by John K. Hillier et al., Geosci. Commun. Discuss.,
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This paper provides a useful encouragement for any prospective contributors to Geoscience Communication. It is primarily focused on the criteria and approaches that are likely to lead to successful publication in this journal. It does, however, seem to gloss-over what many would argue to be the hardest part of this kind of work, namely, analysing the data.

On page 7, a simple 6-point process is described. While I agree that it's critical to define "what success looks like", I would argue that analysis against this criteria alone will lead to an "evaluation" rather than a research paper. A research paper, more often than not, will have a deeper question beyond simple evaluation against a pre-defined success metric. Some explanation about the difference between these would be helpful.

It was also surprising to me that no further padding was included around Step 5 "Analyse the data" (line 213). This is surely the hardest area for someone who has not been trained in these methodologies, and the part of the process where guidance and collaboration might be most helpful. The subsequent case studies provide excellent examples related to the level of specific expertise that might be required for this step, and section 8.2 expands on this a bit more, but it might be worth adding at least a sentence at this early stage indicating that this step requires particular research expertise and a substantial amount of work!

Figure 2 provides an interesting approach to conceptualising the research planning framework, which I found helpful while reading the text. Two design suggestions related to this figure:

- the grey box in the middle I think needs to be labelled (v) rather than (iv) with reference to the stages on the left hand side (purple);
- I think it would be more compelling if the grey box ALSO correlated with the cycle on the right hand side (green). This could be achieved if the green cycle was a mirror-image to the purple one, ie, running anticlockwise, with both cycles overlapping and passing through the box in the middle named "plan and undertake research-informed communication". Currently, it looks like that happens either before the research question is defined, or after the paper has been written.

I was also surprised by the narrative related to how high or low stakes a particular initiative might carry. This appears initially at line 234, later at 349, and then is expanded

in figure 3. While I appreciate that science communication research might require different amounts of rigour and depth depending on the outcome and impact, I think it is risky to infer that it's ok if some ("low stakes") science communication research might not need specific skillsets for their data analysis, and therefore might not "warrant wider interdisciplinary input". I'm not entirely convinced of the value of Figure 3 overall. In addition, the relevance of the placement of the various dots is not clear from either the caption or the text – if they refer to specific case studies discussed in the paper then they need to be appropriately labelled or identified.

Finally, the paper provides a useful overview of the methods that have been used to date in GC articles. I wonder, however, if the purpose of this article is to encourage greater breadth in submissions. If so, it might be worth noting that there are several additional approaches, and types of data, that may be used for documenting and publishing communication work, such as think-pieces, auto-ethnographic works or explorations using art and other creative processes. It's not clear from this paper if such articles would indeed be welcomed by GC – they certainly would present a different kind of "data" as that explored here. I would recommend making this clear either way (and , if not welcome, suggesting that such papers would be better suited to alternative journals focused on public engagement with science).

Finally, it would be useful to also include a short section outlining the level of support that GC provides during the submission and review process. For example, is there a pre-submission "pitch" stage, do you offer suggestions for potential collaborators, what is the peer-review process, and what is your recommended approach to co-authorship. These things may differ from the main discipline in which the prospective authors or communicators are familiar with.

Despite these comments, I think it's great that this paper has been drafted and hope it will encourage further publication on this field.