

Response to Reviewers  
2025-04-08

Thank you to both reviewers for their helpful comments.

Sam Teplitzky

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Reviewer A:

I only have a few small comments:

- Table 1 "Optional Was a seismic or station cited?". I suppose this was supposed to say "Was a seismic network of station cited?"
    - Corrected to: was a seismic network or station cited
  - Regarding lines 181-182: does this concern apply to the cases where a DOI exists but is not cited, or also to cases where a non-persistent URL is the only thing available? Many Python packages only exist on GitHub
    - This is a good point. Ideally we would push for culture change among package developers, but at the point of need when completing a manuscript, we can encourage citations with URL, version and access date as a compromise. Text is edited as:
      - When a URL and a DOI are both available, citations including the DOI are preferable. In cases where a non-persistent URL is the only available link, Seismica can encourage authors to follow software citation guidance as offered by \cite{katz2021} and include details such as access date and version.
  - Line 202: missing space between "search)and"
    - Corrected
  - Line 206: "with [that] institution"
    - Corrected
  - Line 207: "Borealis." = "Borealis".
    - Corrected
  - Lines 289-291: perhaps it would be good to add that mentioning a version number is good practice (if not essential for reproducibility). Academic code tends to undergo major/breaking changes from time to time.
    - Edited to add: "Seismica can offer recommended citations for the most common software including version number, which is important for reproducibility."
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Reviewer B:

The author describes the outcomes of over two years of data and code sharing policies applied to articles published in Seismica. The manuscript documents an encouraging environment overall of adherence to the relevant policies (although this is largely due to enforcement by Seismica's editors and staff, I suspect), but also reveals some inconsistencies in how they are implemented by authors. Overall, the manuscript is an interesting contribution to the debate on application of open science principles to publishing, and should be published following some (very) minor corrections.

I will start with higher level comments, and then move on to line-by-line corrections.

1. "Subject" or "Disciplinary"?

Perhaps this is a "me problem", but I dislike the use of "subject repository" to describe a repository target at a specific topic area or discipline. I found myself thinking that "subject matter" was a less ambiguous wording, and "disciplinary" might be preferable overall. (The author hedges on this point also, in line 176.) If it were me, I would change to "disciplinary" throughout. This would require changes to tables 1 and 2 and figure 1 as well as the main text.

- Both are often used interchangeably, but I appreciate the comment and have corrected it to read "disciplinary" throughout.

2. Author compliance or journal enforcement?

Perhaps this is a philosophical point, but are we really addressing author compliance with Seismica's policies here, or the journal's success in enforcing them? Not to say that this would materially change the detail of the article or the conclusions it draws from the data, but it might worth adding a sentence or two to the abstract and conclusions mentioning that the degree to which authors are not complying could reflect a lack of success in enforcing Seismica's principles as a prerequisite for publication in the journal (and that overall we are doing very well at it).

This is a fair point, and not necessarily discernible from the outside.

*Abstract:*

Edited from: "Two years later, we find overwhelming compliance with the policy" to "Two years later, the journal has upheld the policy while guiding authors toward successful compliance"

*Conclusion:*

The policy's success is due in large part to diligent efforts of our production editors, handling editors, copy editors, and reviewers who enforce the policy and have made significant strides in educating our authors. Authors who publish in Seismica are amenable to the policy requirements and treat Data and Code Availability Statements with care, generally adding more information than is needed to ensure that their work is reproducible and improving these statements with editorial assistance to achieve

compliance. Going forward, Seismica should stay attuned to policy changes from funders and governments, and continue to align our expectations for authors with broader trends being piloted among publishers and infrastructure providers.

### 3. Line-by-line changes

- Lines 38, 39 and 47: Are these using the appropriate citation format? I would use" (Holdren et al., 2013)" and similar for the citations of these memos, consistent with the Government of Canada and Science Europe citations.
  - Corrected
- Line 101: I would say "the versions of codes used to generate results shown in articles" rather than "code related to articles", as I think that is a better description of what we want, and why.
  - Edited to: "but authors should deposit the versions of codes used to generate results shown in articles in an archival, static repository with a citable DOI."
- Table 1: Along with changing "subject", I would change "contact" to "contacted".
  - Subject changed to disciplinary, and contact corrected to contacted
- Lines 234-235: The quoted sentence does not have closing quotes.
  - Corrected
- Line 242: Capitalize "python".
  - Corrected
- Lines 264-265: You could add "... although not always in a consistent manner."
  - Added
- Line 284: Missing a colon after the bolded text.
  - Corrected
- Lines 284-288: Maybe add a few words on versioning of codes here, as we probably want to know that?
  - New lines 293-298: The section on citation of software has been updated to include a mention of versioning and also references key resources missed in the first draft
    - "In the absence of clear instructions, Seismica should follow emerging guidelines from key groups (RDA Complex Citation Working Group \citep{agarwal\_2025\_14795517}, FORCE11 Software Citation Implementation Working Group \citep{katz2021} and recommend citations for the most commonly used software including version number, a key requirement for reproducibility. These citations could be included in a model Seismica .bib file, or otherwise posted on our website for author reference."
- Lines 289-291: No changes here, but I really like the idea!
  - Thank you!
- Line 328: There is only one author!
  - Fixed!

Other additions were made following new information gained at the March 27, 2025 COPDESS Data and Software Citation Deep-Dive Seminar.

Including:

- Lines 54-58: “The American Geophysical Union's (AGU) data citation pilot also demonstrates the effectiveness of well-managed data sharing policies, but \cite{vrouwenvelder2024connecting} note that such successes rely on a network of participants (and ideally staff) to enforce them. This support has enabled AGU journals to increase data citations from 1\% in 2019 to 72\% in 2024 and software citations from 0.2\% to 25\% in the same time period (\citeyear{stall\_2025\_15103616}). Without dedicated staff, \citet{sholler2019enforcing}'s study of the enforcement ...”
- Lines 72-73: “Seismica’s policies offer guidance on handling digital data, codes and scripts, proprietary and embargoed data, and preparing data for peer review. They are also informed by evolving conversations and practices within Earth Sciences \citep{stall\_2025\_15103616}, and adhere to similar policies of peer journals as well as the majority of the Research Data Alliance (RDA)’s suggested policy features \citep{Hrynaskiewicz2019}.”