

Hydrol. Earth Syst. Sci. Discuss., community comment CC1
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Comment on hess-2021-392

Lina Stein

Community comment on "A Hydrologist's Guide to Open Science" by Caitlyn A. Hall et al.,
Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2021-392-CC1>, 2021

The article gives a summary of the current open science movement and advice how to advance the open hydrology movement specifically. The authors present a list of guiding principles and useful resources how open science can and should be pursued. I want to thank the authors for this well written contribution to open science. I only have some minor comments that I hope the authors will take into consideration.

Section: Motivation for Open Hydrology: A not so noble, but potentially convincing reason to adhere to open science standards would be that accessible articles/data/code see more citations. You briefly mention this for the 4th Principle. It might be worth mentioning this connection already in the Introduction.

L47-51: The explanatory sentence "specifically referred to as open hydrology" is a bit confusing, especially with the several citations coming after, it is difficult to connect "research projects" as a continuation of the list started with "open science".

L116: I think it would be better to separate researchers and other stakeholders as interest groups. Co-development with other research is much more common. Ideas are discussed and shared at conferences. Carrying the same collaborative effort outside the research community is more of a problem.

L119-124: This transition is a bit sudden. Can you elaborate what FAIR is and what it has to do with stakeholders? I would even recommend mentioning the FAIR standards already further up in the paper. Maybe you can elaborate what FAIR has to do with data management plans (L113).

Additionally, please spell out the acronyms FAIR and CARE at least once.

L140: Maybe "trustworthy" is a better word than "reliable"? They might still be reliable outputs when not open, but would not be trusted by others.

L156 and Principle 3: An explanatory half-sentence what "Carpentries" is, would be helpful. Alternatively, I would follow the advice given by Reviewer 1, Francesca Pianosi, and include overview tables. These can include links to the individual resources, which makes it easier for other researchers to access them. A similar, up-to-date table would be

useful for the open hydrology project website as well. While a list of articles relating to open hydrology is a useful resource, a table with direct links would be more easily accessible.

L459: Can you briefly mention Table 2 here, since in the order the document is now, it appears before the scenarios.

L461: There is no Table 3. Please check your Table references in general and in the scenarios specifically. There probably has been a mishap in numbering.

L508: Any advice on how to address the fear of being scooped? Since you mention this worry already in the abstract it would be good to address this in the main article as well.

Principle 2: Is "Water Metadata Language" a fixed term? If it is, I do not know it and further explanation and reference would be helpful.