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Hydrology and Earth System Sciences
Discussions

Interactive comment on "Studienlandschaft Schwingbachtal: an out-door full-scale learning tool newly equipped with augmented reality" *by* A. H. Aubert et al.

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This paper discribes an app (and additional online resources) that uses augmented reality to inform both students and the general public about hydrology in a specific experimental catchment. While I think that sharing information about this tool is valuable for the hydrological (and science communication) community, I do think that the current paper needs major reworking. It lacks focus and the conclusion:

"We conclude that such an App is useful for communication and education purposes, making learning pleasant. . ."

is not supported by any significant data presented in the paper.

In my opinion, the authors can go any of two ways:

1. Focus the paper on presenting the tool, including the reasons behind design choices made, by refraining from making claims on the effectiveness of this tool in either communication or education, since that is not what has been researched. The authors can point to other research (in other fields, for example using augmented reality in museums) to hint at its effectiveness and claim they are the first to bring this approach to hydrology. They can explain the specific problems they encountered (outdoor localisation, sufficient mobile coverage). They should then leave the question whether this tool is effective to future research, that should be well designed, with a control group. I leave it to the (special issue) editors to decide whether this constitutes a significant contribution that fits the issue.

or

2. Focus the paper on the effectiveness of the app in communicating a certain message to a certain audience. To test this would require additional research with a control group and proper controls against unintentional priming (the review Molden (http://guilfordjournals.com/doi/abs/10.1521/soco.2014.32.supp.1) and the rest of the special issue that it is part of, is a good starting point). When choosing this focus for the paper, the details of the app can be played down in the article, just referencing the app itself and the source code. However, as the first reviewer pointed out, the link provided in the article does not share the source code, but rather the compiled, downloadable executable. I advice the authors to use github (perhaps in tandem with zenodo.org for citable code) to share their source code (in English please).

I re-iterate that the tool itself seems useful and that testing whether new methods of communication work within the field of hydrology is valid research and I encourage the authors to work on and improve this manuscript.

Rolf Hut

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 12, 11591, 2015.