

## ***Interactive comment on* “Short communication: Landlab v2.0: A software package for Earth surface dynamics” by Katherine R. Barnhart et al.**

**Wolfgang Schwanghart (Referee)**

schwangh@uni-potsdam.de

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In their paper, Barnhart et al. present Landlab 2.0, a new release of the popular numerical environment for landscape evolution modelling. First of all, I like to acknowledge the great tool that Landlab’s developers provide to the geomorphology community, and I think it is important that there are papers that accompany the software to make it accessible and citable. ESURF seems to be a perfect outlet for such a paper.

The presented manuscript covers several aspects of software writing by geoscientists and how these aspects pertain to the development of Landlab 2.0. As such, the text is interesting also for a broad readership. However, I think that section 4 is, at least in part, getting very specific and may be sometimes difficult to follow (and potentially

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not very interesting) if readers haven't used Landlab before. In fact, the numbered or bulleted lists are very technical and could be part of some technical release notes rather than a scientific paper. I suggest that the changes documented by these lists could be described more generally in "plain words" without the heavy use of syntax wording.

The subsection about citing Landlab should become an own section, and not a subsection of section 4. While I understand that v2.0 introduces some new utilities that provide guidance for users about when to cite what, I think that the issue of citing software is not so much about the release of version 2, but rather a general issue.

Section 5 documents a number of lessons learnt that are pertinent to geoscientific software in general, highlighting the value of unit-testing and the importance of exchange between developers and users.

All in all, I really like the paper. It is well written and interesting to readers, irrespective whether they have used Landlab before or not. My only concern is that the paper mixes quite generic issues in software development in the geosciences with very technical issues specific to Landlab. I suggest to partly rewrite section 4 at those places (bulleted or numbered lists) that read like release notes. In addition, I think that the paper could be equipped with some figures that show some of the output of Landlab, even if it is for mere illustrational purpose.

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