

Interactive comment on “An Offline-Online WebGIS Android Application for Fast Data Acquisition of Landslide Hazard and Risk” by Roya Olyazadeh et al.

Anonymous Referee #2

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“An Offline-Online WebGIS Android Application for Fast Data Acquisition of Landslide Hazard and Risk” deals with an interesting and innovative topic, that is mobile tools for field landslide mapping. In particular the authors developed a prototypal App which enables the visualization of several cartographic satellite maps used as background layers upon which the user can draw the contours of the landslides recognized in the field. The App is able to upload data to a database once an internet connection is available and to export the products as shapefiles. The main issue with this paper is clarity. First of all the architecture of the system is not clear and a figure showing it is also missing. I suggest to better to explain the temporal process involved in the publication of the offline data. In particular what parts of process are automated and

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what are manual. Software with deferred updating may have problems when are used by more than one user. For example there may be problems due the digitization of the same landslide by two different users. What solutions have been adopted to solve this issue? English is often incorrect or not fluent to the point that only some of the major points have been signalled (see my specific remarks below). Punctuation should also be revised. Therefore I recommend that the paper undergoes a professional English check. Some figures also are often not completely clear or even contain errors. See the specific remarks below. When citing more than one reference in the text be sure that they are sorted following the criteria of NHES. All considered I recommend major revisions.

Specific remarks: Page 1 line 2: remove the semicolon. P1 l14: what do you mean by “complications subject to accessibility and terrain”? One of the advantages of remote sensing is indeed to overcome accessibility issues. P1 l16: add “the” before “implementation”. P1 l19: replace “for instance” with “such as”. P1 l20: remove “of”. Also (here and elsewhere), PostgreSQL and PostGIS are cited like two separated product. It is better to report PostgreSQL as the real DBMS and PostGIS as its plugin for spatial database management. P2 l2, l7, l8, l9 etc: when citing references do not put an empty space before comma and do not use comma before “et al.” (here and elsewhere in the text). P2 l7: “selection of techniques relies on”. Not clear, please rephrase. P2 l11: replace “are” with “is”. P2 l15: replace “have long” with “require a long”. P2 l16: check English. P2 l18: replace “disadvantages” with “issues/problems”. P3 l7: improvement with respect to what? Please clarify in the text. P3 l23: when references are cited within a sentence only the dates must be in the brackets. P4 l15: Another methodology that should be referenced in this paragraph is data mining from newspapers. P5 l12: BGS Sigma is reported as 2013 in the reference list and further in the text. P6 l4-5: these two sentences are not connected with the following of the paragraph. P8 l29: the data transfer system between offline program and online component is not clear. Is it a normal web application? the data sending is automated or the user must select it manually from his device? P8 l35: It’s not clear the role and the position of

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GeoServer and PostGIS DB (are they in a remote server? in the same server or in two separated servers? maybe a figure about System Architecture could help). Then it's not clear if GeoServer is used only as map server or if it is used also to receive the GeoJSON made from the mobile app (through native REST API or WFS protocol) or if this is done by another component connected to PostgreSQL/PostGIS. P9 I5: Is there a technical reason to use two different DBMS (MySQL and PostgreSQL) in the same project? (again a System Architecture figure could help). P11 I7: replace "out team" with "the authors". P12 I7-8: this sentence is unclear. Please rephrase. P12 I14: in the centre of what? P17 I3: here you have started the description of ROOMA concerning its database and then you talk about the test site. Before you start talking about the test site finish the description of ROOMA, talking about the offline drawing tool, the possibility to upload data and to export data in GIS format. P17 I12-13: please be more conservative in this sentence, i.e. instead of stating that ROOMA will increase the quality of landslide maps, state that this is its aim, or that it provides a contribution in that direction. P17 I14-15: if this paper accomplishes something or not should be left to the reader to decide. Furthermore here you say that the paper accomplishes something that is still to be developed. Please change this sentence.

Figure 2: what do you mean with "temporal"? The state of activity? Also, in the central box remove the capital letter from "L" in "Slope". Figure 3: this figure should be changed into a table. However in its present form it is very confused and confusing. Most notably, the second column should show names of techniques but also reports "frequency", "earthquakes" and others. Also, what are "existing data"? Figure 4: why in the landslide information are also here (left box) even though this concerns information concerning the elements at risk? Are not landslide information already contained in the landslide database (figure 3)? Please explain. Figure 10: in the caption replace "so many" with "several". Figure 14: please add what is on the Y axis. Also the subdivision of a column between "feature" and "damage" is unclear. What do you mean by feature? This must be better explained. Table 1: It is not clear if the fields that you report here represent all the possible entries of your App or if there are just some reported as examples. In

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the first case I suggest to add the actual interface of your App showing how filling in the landslide database works. Instead of "numbers of landslides" state "progressive identification number of the landslide". Also, why is it written "initiation" within the types of movements?

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