Reviewer's report

Title: Designing effective visualizations of habits data to aid clinical decision making

Version: 3
Date: 27 June 2014

Reviewer: Aboozar Eghdam

Reviewer's report:

The paper explores an important issue regarding showing the overall health status of individuals through a User Centered Design approach. The authors aimed to visualize meaningful information extracted from limited sensor data in a manner that would be clear for clinician to make judgments on the condition of patients. In the presentation of the work, however minor details would improve the paper.

-Major Compulsory Revisions

--
In the Introduction section: A background about “User Centered Design method” and its’ relation to your aim would help the reader to understand the whole idea.
--
In the introduction section, page no.3 line no. 79: You mentioned “Good visualization techniques” in this section. Perhaps using scientific words would improve your statement here. Because how can we see that a visualization technique is good or bad? Maybe we can see if it’s effective or efficient or satisfying (terms from ISO standards)
--
In the introduction section, page no.3 line no. 82-86: Maybe more details about you aim (Or research type) helps the readers to understand the value of your work instead of describing different methods (approaches).
--
In the introduction section, page no.3 line no. 87-91: Is this your work limitation or inCASA project’s limitation? It might improve the paper if you put your work’s limitation at the end of the discussion.
--
In the introduction section, page no.3 line no.92: It would be better if this sentence comes earlier in the introduction since you have already used “Clinicians”.
--
In the method section, page no.3 line no. 96: A section about your target group or participants would help the readers to get a better idea about the context of the
work. Since you have used user centered design, a section about user characteristic is needed as well. You have mentioned your participants in section 2.4 but not any special characteristic.

In addition, there is a confusion about the word “researchers”. In section 2.4 you have mentioned that there was one independent researcher in your participant group but in your discussion (Line no. 316) you address him/her as “researchers”. Did you mean the authors of this manuscript or that independent researcher? In case you meant that researcher, it might be a risky generalization, because it depends on that person’s background not the fact that he/she was just a researcher. In the other hand you have to address authors as authors (if it’s the case here)

In the method section 2.3, page no.5 line no. 152: You have to describe: what the initial needs and requirements are.

In the discussion section: Many sections in the discussion belong to the results. For example line no.346-350 might be pure results (except the last sentence) (also line no. 351-355). It would improve your paper if you just provide the interpretation of your results in the discussion. Please go through the discussion again and fix this issue

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.