Reviewer’s report

Title: Co-production in practice: how people with assisted living needs can help design and evolve technologies and services

Version: 1 Date: 12 January 2015

Reviewer: Rachael Gooberman-Hill

Reviewer’s report:

Thank you for the opportunity to review this manuscript that describes an important area of investigation. Authors conducted a study involving participatory co-design workshops with end-users of ALTs, carers, third-sector advocates, service providers and industry representatives. Conducting this number of workshops is quite a feat. The authors clearly went to much effort to design those workshops well and to use a variety of methods to generate discussion in the workshops.

Minor essential revisions

1. The end-users had taken part in a previous ethnographic study and the ‘carers’ were people who provided (informal?) care to those individuals. In addition, other stakeholders took part in the workshop. For the sake of completeness, it would be useful to know how stakeholders were identified, and how the stakeholders and carers were approached. After this I would like to know about the consent processes for the workshops and about ethical approval for the study, which has generated novel data that was analysed as research material.

2. On page 6, the analysis method is described. Can there be more detail on this process, including detail of how the constant comparison process was conducted with the transcribed audio-recordings (for those who do not know), and how any data stemming from the visual techniques, storyboards and interactive tasks were analysed? This change may mean that some small revisions might are also needed in the data collection sections. For instance, in the card sorting task, was the order of the cards recorded and kept? Or, was this information solely recorded on audio? If audio only then are the authors confident that all the relevant information was captured on audio?

3. It was not always clear whether exploration of methods was an aim of the study. The first two substantial paragraphs of the Results section explain how the methods used generated data, the Discussion opens with a statement about the study showing that ethnographic data can be taken forward through co-design workshops, and the final conclusions of the manuscript focus on the utility of co-design workshops, and the need to ‘devise ways to continually track the mutual shaping of technologies’. This is all interesting and useful, but I think there may be two options here: 1) methods become an additional study aim, 2) the
information on methods is grouped into one place, possibly in the Discussion? The work of Robert et al, already makes a case that findings from ethnographic work can be taken to participatory workshops, so I am not sure that there is a novel message about methods here, so the latter option might be best. The authors could consider whether instead they might wish to include an additional paragraph in the Discussion that could include consideration of the methods used, what worked well, any limitations and how methods might be carried forward in the future.

4. On page 13, please correct ‘repairmen’ to ‘technicians’ in relation to Orr’s ethnographic study.

5. On page 15, I was unsure of the basis for the following statement, and suggest that the evidence to support the claim should be made clearer: ‘Effective design and delivery of ALTs will rely on spontaneous cooperative acts to deal with task complexity and uncertainty…’ Why spontaneous and why cooperative?

6. On page 16, please define ‘social affordances’ for this audience. Also in this paragraph, can I suggest revisiting this paragraph to enhance clarity (too many ‘they’s in the paragraph perhaps?).

7. On page 16, I was unsure about the introduction of the idea of ‘de-coupling’ in the context of this study, and wonder if it might work better if related to the study findings?

Discretionary revisions

8. In the Abstract, the authors write that the prevailing focus has been on technical aspects of ICT systems. I think that it may be a mild overstatement to say that the focus has been on the tech side, and this might be worthy of revision. Also, the Abstract uses the phrase ‘integrated care’, but the manuscript does not define this, although theme four is about elements of integration and as the Discussion addresses the idea of ‘coordination across a distributed care network’ (page 16). Perhaps the notion of integrated care could be discussed?

9. In the Abstract: ‘audio recoded’ would be better than ‘audiotaped’ and would match the main text.

10. The submission builds on the authors’ previous work in the ATHENE study, and as such comprises the next step in their research, by attempting to identify the steps that can promote ‘bricolage’. The introduction indicates that work is needed to enable bricolage to happen. While customisation is addressed in the discussion, there is no mention again of ‘bricolage’ per se. I wonder if the authors might make bricolage more explicit in the Discussion and expand further on how the workshops inform how to achieve, or promote, bricolage relating to ALTs. Alongside this is might be useful to add more about bricolage in the Introduction: while the definition as provided is clear, it is brief and readers might value more information and background to the idea of bricolage here. I do appreciate that he submission provides the necessary references to previous work that discussed bricolage, but as a stand-alone piece I feel that more information might clarify the
authors’ use of the concept here, including in the Introduction and Discussion.

11. In the second paragraph on page 3, might it also be the case that the drive to invest in ALTs is not just due to modernism but might also reflect political economy as described in reference 6?

12. I wondered if the authors might like to cite Bate and Robert (2007), as it provides a much more detailed description of experience-based design than Robert (albeit an earlier iteration) that readers might like to access for information.

13. In the Results section I prefer that quotes from participants are accompanied by anonymised IDs or pseudonyms. I understand that there is debate around this.

14. On page 11 should ‘informal supports’ read ‘informal support’?

15. There are some stray/inconsistent punctuation marks, which I am sure that the authors will attend to.

16. Is there a typo in the middle lower box of the cartoon: ‘send’ rather than ‘sent’? I guess this is the version of this particular cartoon as used in the workshops, but might the authors want to provide a typo free version, if even of a different scenario?

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

I declare that I have no competing interests.