

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Companion robots for older people: the importance of user-centred design demonstrated through observations and focus groups comparing preferences of older people and roboticists in South West England.
AUTHORS	Bradwell, Hannah; Edwards, Katie; Winnington, Rhona; Thill, Serge; Jones, Ray

VERSION 1 – REVIEW

REVIEWER	Luc de Witte University of Sheffield United Kingdom
REVIEW RETURNED	10-Jul-2019

GENERAL COMMENTS	<p>This is an interesting and well written paper about preferences of older people and robot developers regarding characteristics social robots for older people should and should not have. The results show that both groups have very different preferences. On the basis of this finding the authors conclude that user-centered development of robots is important. This conclusion is based on the (widely shared) assumption that agreement between users and developers is important. Although that seems logical there is little or no evidence that more intensive user involvement leads to better accepted or more 'liked' products. It would be good if the authors reflect on this.</p> <p>Another aspect that requires some discussion is the idea the 'the' end-user exists. The study involved 17 older adults from the same supported living complex and thus probably having quite similar socio-economic backgrounds and also experiences. They do not represent 'the' older adult, and it is very likely that different people will have different preferences. This is an important limitation of the study that should be discussed.</p> <p>Another weakness of the study, related to the previous point, is that the 'roboticists' involved all came from the same research team. This will certainly have introduced bias towards the common opinions in the group. It would be good if the authors discuss this point in their paper.</p> <p>Finally the paper is quite lengthy; it might be shortened substantially without losing much of the content and key messages.</p>
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REVIEWER	Antonio Greco IRCCS "Casa Sollievo della Sofferenza "
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	Italy
REVIEW RETURNED	06-Aug-2019

GENERAL COMMENTS	Very interesting paper that focuses on the importance of co-creation approach for the use of robots for the elderly people. The main differences between robotics and users perception of robotic tools are the high level of interactivity and the speech recognition. This a real novel that the paper very clearly shows
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VERSION 1 – AUTHOR RESPONSE

Reviewer(s) Reports:

Reviewer: 1

Reviewer Name: Luc de Witte

This is an interesting and well written paper about preferences of older people and robot developers regarding characteristics social robots for older people should and should not have. The results show that both groups have very different preferences. On the basis of this finding the authors conclude that user-centered development of robots is important. This conclusion is based on the (widely shared) assumption that agreement between users and developers is important. Although that seems logical there is little or no evidence that more intensive user involvement leads to better accepted of more 'liked' products. It would be good if the authors reflect on this.

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Another weakness of the study, related to the previous point, is that the 'roboticists' involved all came from the same research team. This will certainly have introduced bias towards the common opinions in the group. It would be good if the authors discuss this point in their paper.

- Thank you very much for your comments, they're much appreciated and you have raised some important points which we hope we have addressed. Please see the highlighted text on page 31 in reflection of these comments, including the additional reference to the below article:

52. Easton K, Potter S, Bec R, et al. A Virtual Agent to Support Individuals Living with Physical and Mental Comorbidities: Co-Design and Acceptability Testing. Journal of Medical Internet Research 2019;21(5):e12996. doi:10.2196/12996

Finally the paper is quite lengthy; it might be shortened substantially without losing much of the content and key messages.

- We have shortened the paper, including the additional limitations the main text now totals 6259 words, reduced from 6779.

Reviewer: 2

Reviewer Name: Antonio Greco

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The main differences between robotics and users perception of robotic tools are the high level of interactivity and the speech recognition. This a real novel that the paper very clearly shows

- Thank you very much for your comments, they're much appreciated.

VERSION 2 – REVIEW

REVIEWER	Luc de Witte University of Sheffield Centre for Assistive Technology and Connected Healthcare (CATCH) United Kingdom
REVIEW RETURNED	07-Sep-2019
GENERAL COMMENTS	I think the authors have made a serious and successful effort to deal with the earlier reviewer comments.