Review of Ph.D thesis of Kinga H. Skorupska

Thesis title: "Designing Crowdsourcing Systems for Older Adults"
Taha Yasseri

Associate professor of Sociology & Geary Fellow of Public Policy

University College Dublin, Ireland

16 Oct 2022

1. **What are the research problems and objectives considered in the thesis, and have they been sufficiently clearly described by the author?**

The presented thesis concerns with the issue of crowdsourcing for senior individuals. The presented body of work overviews the state-of-the-art in crowdsourcing and reports on specific challenges and issues related to older participants to such projects. This is a niche idea and sits very well at the cross-section of Informatics and social sciences. The main objectives of the project goes beyond generating the knowledge required for designing such platforms, and includes the development of a design framework.

2. **Does the thesis contain an appropriate analysis of state of the art (based on global scientific literature, current knowledge and applications in industry)? Does the analysis of related work demonstrate sufficient expertise of the author? Have the conclusions of the review of related work been sufficiently clearly stated?**

The review of the literature and the state-of-the-art in practice is comprehensive and well-structured. It does cover the main findings in the existing research and does identify the gaps and shortcomings. The outcome of the literature review nicely shapes the rest of the thesis and even though it is clearly written later than the research papers, it does match very well with the papers that follow the literature review and the introduction.

3. **Does the research described in the thesis use a correct scientific methodology?**

In the presented work a set of methods is used. This is one of the strongest features of this work. Combining experimental designs with semi-structured interviews and surveys all together have provided the author with solid data and evidence to answer the research questions and support the concluding statements.

4. **What are the original and innovative contributions of the author, and what is the position of these contributions compared to the state of the art?**

The presented work starts with an innovative question: how crowdsourcing can benefit from the cognitive resources of the older strata of the society. The work continues to review the

state of the art in research and practice and identifies challenges against contribution to crowdsourcing projects by older citizens. The work continues in providing a design framework that has emerged from the experimental work presented in earlier work by the same author. All these contributions are novel and they add adequately to the literature and in addition shape and guid the field practice.

a. How do you evaluate the publication record of the candidate?

The publication record of the candidate is outstanding given their career stage. There are several publications in high-quality venues with the author as the main author or co-author. The publication record certainly outperforms majority of PhD candidates in the field of social informatics and adjacent fields.

5. Did the author present his results correctly and convincingly? (Please evaluate the clarity, conciseness, correctness of the thesis or presented research articles).

The analysis presented in the five papers listed are rigorous. The data collection, analysis, and the interpretation of the results are well documented and accurate. The articles are well-structured and easy to read. The main findings are highlighted and put in the context of the existing work adequately.

6. What are the weak and strong points of presented research results?

The strongest point of the thesis is the nexus of methods used in different sections. Developing an add and running experiments, interviews, surveys all help the author to draw a comprehensive and detailed image. One of the few weaknesses of the work is sometimes it is not clear how the results or proposals would be different for "non old" participants. In other words it is not clear how the results would generalise or would be unapplicable to the general public. It is commendable that the author has kept their focus on the issue of crowdsourcing and older groups, yet it would have added to the contribution of the work if they clarified the boundaries and the scope of their findings by including control groups consisting the members of the general public or by theoretical discussions (paper 3 is being an exception). This could have been done in the introduction or the conclusion of the contributions even if not in individual papers. Other shortcoming of the work is related to gender.

I assume due to the issue of sample size, most of the study does not specifically consider the role of gender. This is not an issue per se, but a discussion of this shortcoming at the relevant sections and in the introductory part would have been strengthen the work.

7. Are the presented achievements of the author sufficient to grant him/her a doctoral degree in the field of technical sciences in the discipline of computer science or software engineering?

Yes!

Further comments: Overall the writing of the thesis, both in the introductory sections and the research article is of high standard. The use of language is clear and effective. References are provided adequately when needed and the structure of the work makes it an easy and enjoyable read.

Questions:

1. Which of the findings across the five presented papers could be generalised to the general public and which remain specific to seniors? Reading the results I wondered some of them might also be relevant to the youth and children (the answer could be speculative).

2. Which of the presented results would be more likely to differ for different genders? (the answer could be speculative).

Final Remark:

The presented thesis is of outstanding quality in terms of research question, academic contribution, methodological approach and societal impact. The interdisciplinary nature of the work particularly makes it a strong contribution. The work strategically sits at the cross section of information sciences and human-computer interaction discourse, and the social science disciplines engaging with aging and older citizens. The familiarity of the candidate with both literatures, research methods, and analytical frameworks of the both disciplines are highly commendable.

Recommendation: **Pass with Distinction**

Signature