Review of: "Collaborative Intelligence: A scoping review of current applications"

Federico Cabitza[1]

1 University of Milan - Bicocca

Potential competing interests: No potential competing interests to declare.

Starting from 915 non-duplicate documents on the topic of collaborative intelligence, the authors selected 19 documents on 16 AI applications that allowed for virtual or physical collaboration. Despite being a reductive number, the authors have justified it by referring to the novelty of the field and trade secrets.

The topic is intriguing and the systematic review is well-structured. What we especially appreciated was how the authors not only considered the desired outcome of improving productivity and accuracy, but also delved on worker satisfaction and creativity. As such, we would suggest making reference in the introduction to the socio-technical nature of collaborative intelligence and shared work practices.

Moreover, as both humans and AI are described as "agents", it would be interesting to add a short ethical reflection not only on human-AI complementarity, but also on the validity of assuming symmetry between the two. Is AI conceived as something more than just a tool deployed by humans?

We have some other minor observations, namely:

- We suggest rephrasing the following phrase, "with the remaining 19 documents detailing 16 collaborative intelligence applications (3 collaborative intelligence applications were detailed in two unique documents) were included in the systematic review or further analysis." Either "The remaining 19 documents… were detailed", or "with the remaining 10 documents… included in", without "were". Also, the broken reference should be fixed.

- The authors should justify why the scope of the systematic review was limited to January 2012. Also, in "Stage of development" they wrote "Although our analysis covered documents published between 2011 and 2021" - in that case, it should be "between 2012 and 2021".

- The readability in the part starting with "The motivation for developing collaborative intelligence applications (as opposed to AI applications with collaborative capability) has two sources" could be enhanced. There are too many lines between the "first" and the "second" arguments for utilising collaborative intelligence: the two points could be made explicit immediately, to then be dealt with with greater detail in the subsequent paragraphs. In fact, at a first reading I had understood that the first element was AI's lack of ability in human "common sense" tasks and the second was its ability with data mining and pattern finding (instead of "the potential to improve the quality and scope of work for humans"), while both these elements are part of the "first".

Overall, we find this a very nice work.

- Federico Cabitza, PhD and Chiara Natali, BSc MA