

Group 1: Wonder document

1.1 Our group

We are a group made up by:

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We are all first year students at the master programme Informatics: design, use and interaction.

1.2 Background

Originally, we wanted to explore the area of AI systems and universal design. After a discussion within the group, we narrowed down the scope to how universal design is addressed when designing AI-systems. We found inspiration from Bratteteig & Verne (2018) and their understanding of development of AI-systems in contrast to participatory design, certainly in this quote from their article:

“AI poses some new challenges to PD as the technology is different to other computing technologies by the fact that its behavior is unpredictable as it changes over time as it accumulates data presented to it – also from insufficient or biased data” (Bratteteig & Verne, 2018, p.3).

These systems are used to make important (and life-changing) decisions for individuals. It is therefore important to ensure that the decisions are transparent and inclusive. With the commercialization of these systems, researchers are becoming aware of the biases that these applications can contain (Mehrabi et al., 2019).

1.3 Preliminary research questions

As described above, our research interest is within the area of AI and ethical challenges that may arise when AI systems interact with decision makers (as well as the users). To narrow down our focus, we would like to use our term-paper to answer our preliminary research question:

A) Are there good resources/literature to support and depend on while developing AI-systems for universal use? (E.g. research papers, courses or other relevant literature)?

- With this question we find it interesting to focus on how these papers or guidelines take interaction with the systems into account - before, during or after developing?

1.4 Preliminary thoughts on a methodological approach

To answer the preliminary research questions above, we assess that a thorough review of academic literature on the research topic would present a suitable methodological approach for this term paper. When choosing what academic articles to include in our population, we intend to lean heavily on the following criteria:

- Top X journals within the field (as measured by impact factor, ranking Y)
- Citations
- Following keywords
- Use google scholar and the library
- Peer reviewed articles primarily, but may include seminal books etc.

If the methods above are not sufficient, we are prepared to change our approach in the next iteration.

References

Bratteteig, T. & Verne, G. (2018). “Does AI make PD obsolete? Exploring Challenges from Artificial Intelligence to Participatory Design”. In Proceedings of PDC 2018, Belgium, August 2018, 5 pages.

<https://doi.org/10.1145/3210604.3210646>

Mehrabi, N. et al. (2019). “A Survey on Bias and Fairness in Machine Learning”. (Sep. 17, 2019).

<https://arxiv.org/abs/1908.09635>