THE IMPORTANCE OF HUMAN PERCEPTIONS OF ALGORITHMIC BIAS IN VIDEO INTERVIEWING SOFTWARE

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RESEARCHERS

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ABSTRACT

With increasing developments in technology, many sectors of society implement artificial intelligence into their structures with the goal of eliminating discriminatory practices and enhancing productivity.

Artificial intelligence, while sometimes considered neutral by its proponents, can perpetuate the implicit and explicit biases of the engineers and designers responsible through the process of machine learning.
Despite the risks, companies and organizations increasingly utilize artificial intelligence in their hiring processes, from recruiting to interviewing.

As this technology shapes hiring decisions, further career-specific algorithmic bias research work rooted in human experience proves essential.

- Focusing on the applicants’ perspectives can identify whether this software provides a more equitable and inclusive interview environment than current in-person interviewing methods.
DECONSTRUCTING ALGORITHMIC NEUTRALITY

- A common perception about artificial intelligence is that the technology offers an alternative to the implicit and explicit biases of human decision making.
- This discounts that the engineers creating the AI are human, and therefore the algorithms reflect the biases of the engineers building them and the supplied machine learning datasets.
- Algorithms failing to recognize components based on limited datasets contributes to exclusionary behavior, regardless of the developers’ intentions.
ALGORITHMIC BIAS IN THE WORKFORCE

- Artificial intelligence is often perceived as an objective tool in the hiring process to remove implicit biases.
- Researchers currently disprove this, highlighting race and gender discrimination amplified through AI.
  - Joy Buolamwini, Founder of the Algorithmic Justice League, examines racial discrimination in facial recognition software [4].
  - Amazon disbanded their algorithmic hiring system 2018 after biases against female candidates emerged [1].
- AI implementation in the workforce includes resume reading, video interviewing software, and other automated hiring systems.
Video interviewing software takes multiple forms—from live videos recorded for later analysis to computer-led programs that prompt users to provide a response.

This quantification of facial features raises a question of how algorithms account for individual differences.

- The implemented hiring algorithms could be operating on limited datasets, leading to possible discriminatory outcomes.
During the 2021 - 2022 school year, along with conducting a literature review and crafting a position paper, we developed an outline for research implementation.

- Anonymous survey analyzing the experiences of individuals who have completed an AI video hiring software
- After launching our survey and analyzing the subsequent data, we will conduct interviews to further learn from participants about their perceptions of artificial intelligence.
FUTURE RESEARCH PLANS OUTLINE

PROPOSED STUDY

SURVEYS

FORMAT
Qualtrics anonymous survey

FOCUS
Quantitative analysis of participant experiences

INTERVIEWS

FORMAT
Zoom recorded one-on-one interviews

FOCUS
Qualitative analysis of participant experiences
CONCLUSION

- We propose that developments in artificial intelligence, such as video interviewing software, requires critical examination and analysis before implementation.
- In order to analyze algorithmic bias, it is essential to conduct human-centered research that prioritize the perspectives of those whose aspects of their identity have been historically underrepresented in their respective fields - such as race, gender, and sexuality.
  - Close analysis could reveal the level of authority that software holds in hiring decisions and how this authority could enforce existing implicit and explicit biases.
REFERENCES


