Entry barriers for women are amplified by AI in recruitment algorithms, study finds

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Human gender biases that limit recruitment opportunities for women are mimicked and exacerbated by artificial intelligence (AI) used for sorting resumés, according to new research.

The study, commissioned by UniBank, analyzed how a panel of 40 human recruiters reacted when the exact same resumés were presented with male and female genders interchanged. The process was then applied to different hiring algorithms to see if the AI replicated human biases.

The research found the human recruiting panel demonstrated the strongest examples of unintentional bias, consistently preferring resumés of the male candidates over female equivalents.

Report co-author and gender policies researcher from the University's Policy Lab, Associate Professor Leah Ruppanner said we know that more women than men have lost their job during the pandemic.

"Unfortunately, for data and finance roles, women's resumés were ranked lower than men by our human panelists though they had the same qualifications and experience," Professor Ruppanner said.

Report co-author and digital ethics researcher from the Center for AI and Digital Ethics (CAIDE), Dr. Marc Cheong said algorithms were then developed by the researchers to replicate the preferences of the human panel.

The research showed even basic algorithms could mimic subconscious human gender bias without taking into account the merits of a candidate.

"Even when the names of the candidates were removed, AI assessed resumés based on historic hiring patterns where preferences leaned towards male candidates. For example, giving advantage to candidates with years of continuous service would automatically disadvantage women who've taken time off work for caring responsibilities," Dr. Cheong said.

"Also, in the case of more advanced AIs that operate within a "black box" without transparency or human oversight, there is a danger that any amount of initial bias will be amplified."

UniBank General Manager, Mike Lanzing, said as the use of artificial intelligence becomes more common, it is important that to understand how existing biases are feeding into supposedly impartial models.

"We need to take care that we are not reversing decades of progress towards women's financial independence and security by reinforcing outdated attitudes about the sort of work women are suited to," Mr Lanzing said.

The report suggested a number of measures that could reduce bias in these processes including training programs for human resource professionals and creating transparent hiring algorithms designed to reduce gender bias.

Provided by University of Melbourne

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