

Algorithms of
Oppression –
*gendered
discrimination &
problematic bias*

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Where can we
find bias in AI?

Where can
we locate bias
in AI?

Conscious Bias &
Unconscious Bias



Algorithms of Oppression

racist and sexist algorithmic bias Safiya Noble

Conscious Bias

... such as employment selection processes

Unconscious Bias

M Technology ▸ Artificial intelligence

Woman's lips mistaken for open mouth by 'racist' online passport checker

Elaine Babey submitted a passport photo on the gov.uk website, and was baffled after it was rejected amid claims 'mouth was open'

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By **Shivali Best**
12:21, 26 FEB 2020



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How does gender bias occur?



What Causes AI Bias?

Incomplete or skewed training dataset

Labels used for training

Features and modeling techniques



How can AI overcome gender bias?

- make sure training samples are as diverse as possible
- make sure people in AI are as diverse as possible



Best Practices for Machine-Learning Teams to Avoid Gender Bias

Training Samples

Ensure diversity in the training samples (e.g. use roughly as many female audio samples as males in your training data).

Diverse Backgrounds

Ensure that humans labeling the audio samples come from diverse backgrounds.

Measure Accuracy Levels

Encourage machine-learning teams to measure accuracy levels separately for different demographic categories and to identify when one category is being treated unfavorably.

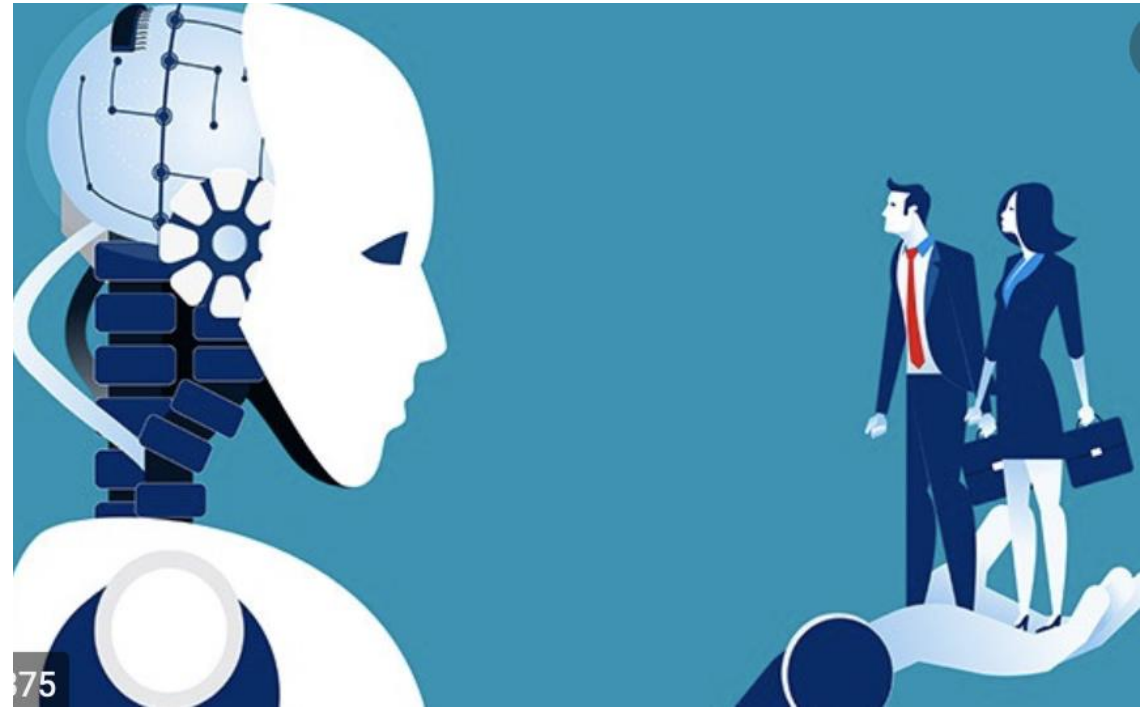
Sensitive Groups.

Solve for unfairness by collecting more training data associated with sensitive groups.

Why is it important to overcome bias?



Garbage In Garbage Out



'Rotten Data In, Discriminatory Decisions Out'

These rules are now being used to make decisions about people today.

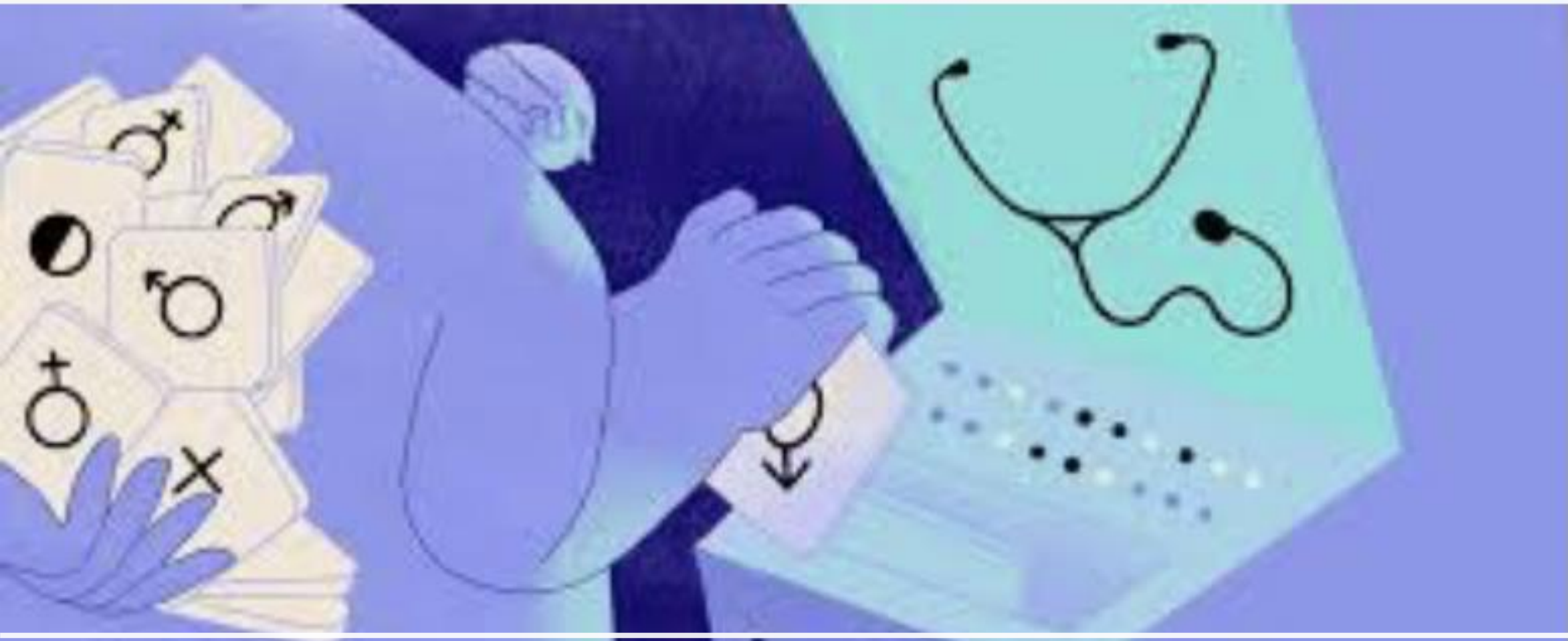
These decisions include whether or not you have your eyes open for a passport photo;

- whether or not you should be called to a job interview;
- whether or not you are a worthwhile insurance risk;
- whether or not you will survive an operation;
- and countless other decisions that may affect a person's quality of life.

An illustration on a teal background. On the left is a stylized, light-colored robot head with a circular sensor on its forehead and a dark horizontal slot for an eye. On the right is a woman with dark hair, wearing glasses and a white lab coat over a red top, shown in profile facing left. The text is centered between them.

a bias-free AI world?

it's up to people, not the machines, to remove bias.



Catastrophic Failures OR ...

THANK YOU

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People spend most of their waking hours staring at screens

Published: Aug 4, 2018 5:09 p.m. ET



New research suggests U.S. adults spend more time interacting with media than ever before



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Repeat.

