

ALGORITHMIC JUSTICE LEAGUE

June 9, 2020 | Oral Testimony of Joy Buolamwini

Chair Edwards, Members of the Committee on Government Operations, and Members of the Boston City Council:

Thank you for the opportunity to testify today. I am the Founder of the [Algorithmic Justice League](#) and an algorithmic bias researcher. I've conducted [MIT studies](#) showing some of the largest recorded [gender and racial biases](#) in AI systems sold by companies including [IBM](#), [Microsoft](#), and [Amazon](#).

As you've heard, the deployment of [facial recognition and related technologies](#) has major civil rights implications. These tools also have technical limitations that further amplify harm to Black people, Indigenous people, other communities of color, women, the elderly, youth, trans* and gender nonconforming individuals.

In one test I ran, [Amazon's AI](#) even failed on the face of [Oprah Winfrey](#), labeling her male.



(Still from "[AI, Ain't I A Woman?](#)" – Showing AI Evaluations of Women Including Oprah Winfrey, Michelle Obama, and Serena Williams)

Personally, I've had to resort to [wearing a white mask](#) to have my [dark-skinned face detected by some of this technology](#).

Given mass surveillance applications, not having my face detected can be a benefit. We do not need to look to China, to see this technology being [used for surveillance of protesters with little to no accountability and too often in violation of our civil and human rights](#), including First Amendment freedom of expression, association, and assembly rights. When the tech works we cannot forget about the costs of surveillance.

In other contexts, failures can be harmful. Misidentification can lead to false arrests and accusations.

In April 2019, a Brown university senior was misidentified as a terrorist suspect in the Sri Lanka Easter bombings.

The police eventually corrected the mistake, but she still received death threats. Mistaken identity is more than an inconvenience.

She is not alone.

In the UK, the faces of over 2,400 innocent people were stored by a police department without their consent. [The department had a reported false-positive identification rate of over 90 percent](#). In the US, there are largely no reporting requirements. We are operating in the dark.

Further, these tools do not just have to [identify unique faces to be harmful](#).

An [investigation](#) reported that IBM equipped the NYPD with tools to search for people in video by facial hair and skin color. In short, these tools can be used to [automate racial profiling](#). The company recently came out to denounce the use of these tools for mass surveillance and profiling. [IBM's move to stop selling facial recognition technology underscores its dangers](#).

Due to the consequences of failures, I focused my MIT research on the performance of facial analysis systems. [I found that for the task of binary gender classification, IBM, Microsoft, and Amazon had error rates of no more than 1% for lighter skinned men. In the worst case those error rates soared to over 30% for darker skinned women](#). Subsequent government studies complement this work, showing [continued error disparities](#) in other facial processing tasks including facial recognition. [The latest National Institute of Standard an Technology study of 189 algorithms revealed consequential racial, gender and age bias in many of the algorithms tested](#).

Still, even if error rates improve, the capacity for abuse, lack of oversight, and deployment limitations pose too great a risk. Given known harms, the City of Boston should ban government use of face surveillance.

I look forward to answering your questions.