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10/23/25

RESEARCH QUESTION: **With what accuracy do we use facial recognition and racial bias when trying to identify suspects of crimes?**

How can policymakers improve the system of Facial Recognition and Racial Bias to help support and improve everyday lives?

Introduction Paragraph:

Hook: There have been 6 confirmed cases of improper facial recognition analysis, one being Robert Williams of Detroit, Michigan being wrongfully arrested in front of his home and being hekd under arrest for over 30 hours. He was arrested on the suspicion of stealin thousands of dollars worth of watches and he was matched due to the crime from grainy camera footage and an expired driver's licesnse(Sanford 1).

Background Context: What is facial recognition technology? Facial technology is using a database full of information that it's been fed and trained with to recognize facial features to piece together possible crimes; "Facial recognition technology identifies or verifies a person by analyzing unique features of the human face. Using artificial intelligence and deep learning algorithms, it detects a face, extracts key landmarks (such as eyes, jawline, or nose), and converts them into a digital template, or representation(Innovatics 1)." The government employs Facial Recognition Technology into many facets of society today such as: fraud prevention, missing persons, identity matching. It's also integrated into everyday life such as facial recognition in your cell phone. How can policymakers improve the system of Facial Recognition and Racial Bias to help support and improve everyday lives?

Body Sections (typically 3-4 main points)

- **Impacting on policing and civil rights**

False recognition has led to false arrests, wrongful surveilence and racial discrimination

- **Alogrithm and Data Bias**

If the data is all brighter skinned people and we are feeding it negative information unintentionally. This is known as data bias and this happens when the data does not properly represent the full population.

- **Lack of regulation and accountability**

"In the landmark 2018 "Gender Shades" project, an intersectional approach was applied to appraise three gender classification algorithms, including those developed by IBM and Microsoft. Subjects were grouped into four categories: darker-skinned females, darker-skinned males, lighter-skinned females, and lighter-skinned males. All three algorithms performed the worst on darker-skinned females, with error rates up to 34% higher than for lighter-skinned males(Najibi 11)."

Ethical reform and solutions

The policing system along with all facial recognition needs improvement with discrimination, data diversity can be improved to be all ages, genders, and races. Independent government audits could help improve facial recognition systems, in order to hold the system accountable.

3. Counterarguments and Rebuttals

The common counter argument would just be not to look at the small number and look at the amount of successful recognition. According to evaluation data from January 22, 2024 done by International Security and Expo, "each of the top 100 algorithms are over 99.5% accurate across Black male, white male, Black female and white female demographics. For the top 60 algorithms, accuracy of the highest performing demographic versus the lowest among these varies only between 99.7% and 99.85%. Unexpectedly, white male is the lowest performing of the four demographic groups for the top 60 algorithms(Parker 158). My reaction to this study would be more positive than anything about the capabilities of Facial Recognition. This study is done much after a lot of the cases of racial bias. There were 6 reported cases, three of them being from 2020, two from 2023 and one from 2025.

4. Conclusion

Facial recognition technology has shown clear racial bias, leading to false arrests, wrongful surveillance, and violations of civil rights. These issues stem from data and algorithmic bias, as systems trained mostly on lighter-skinned faces often misidentify people of color, with studies showing error rates up to 34% higher for darker-skinned women. To create a fairer and more ethical system, diverse data, independent government audits, and stronger accountability are essential to prevent technology from reinforcing discrimination in modern policing.

https://sciencepolicy.hsites.harvard.edu/blog/racial-discrimination-face-recognition-technology

Najibi, Alex. “Racial Discrimination in Face Recognition Technology.” *Harvard Griffin GSAS Science Policy Group*, sciencepolicy.hsites.harvard.edu/blog/racial-discrimination-face-recognition-technology. Accessed 16 Oct. 2025.

The main argument from Najibi is not all facial recognition algorithms are 100 percent accurate, “ Face recognition algorithms boast high classification accuracy (over 90%), but these outcomes are not universal. A growing body of research exposes divergent error rates across demographic groups, with the poorest accuracy consistently found in subjects who are female, Black, and 18-30 years old(Line 11).” I believe the other main point of the article as a whole is that we are subjecting people to closer policing and different treatment without even intentionally seeking this. This source is relevant to the question because we are researching possible bias to improve people's lives. Relevance also comes from the article speaking on lack of camera quality can feed into possible faulty facial recogniciton, “Default camera settings are often not optimized to capture darker skin tones, resulting in lower-quality database images of Black Americans. Establishing standards of image quality to run face recognition, and settings for photographing Black subjects, can reduce this effect(Line 58).” Strengths of the source are they make strong claims and supply evidence and research towards bias in facial recognition. I am going to use the article to show how something as simple as camera quality or the recognition systems dataset can contribute to a conviction.

https://www.aclu-mn.org/en/news/biased-technology-automated-discrimination-facial-recognition

Fergus, Rachel. “Biased Technology: The Automated Discrimination of Facial Recognition.” *ACLU of Minnesota*, 29 Feb. 2024, www.aclu-mn.org/en/news/biased-technology-automated-discrimination-facial-recognition.

The main points of the argument are that FRT or Facrial Recogition Tracking poses a serious risk of discrimination, especially in law enforcement and that we do not properly regulate it. The five points the article makes are, “One, it gives blanketed and indiscriminate surveillance to authorities to track you. Two, it is inaccurate and intensifies racial and gender biases that already exist in law enforcement, which lead to disparate treatment. Three, it can be used to target and identify vulnerable groups, such as immigrants and refugees. Four, it can be used to track your personal movements, including going to abortion clinics or drug treatment. Five, facial

recognition technology violates our Constitutional rights(line 26).” I think the source strengths are they have local relevance in Minnesota. Their point is clear on if they want a state wide ban on the FRT or not. I’ll use this source to convince the reader of the amount of bias in the world today.

https://ucalgary.ca/news/law-professor-explores-racial-bias-implications-facial-recognition-technology

> Hassanin, Nada. “Law Professor Explores Racial Bias Implications in Facial Recognition Technology.” *News*, 22 Aug. 2023, ucalgary.ca/news/law-professor-explores-racial-bias-implications-facial-recognition-technology.

The main differences in this article compared to the others are this data and research all takes place in Canada so they have different rules and interpretations of the law. The points being made are “Police Facial Recognition Can’t Tell Black People Apart”. Christian also talks about the importance of how we are training AI to recognize faces. If we give them bias data with majority white faces it will only be able to interpret white faces accurately. “My research takes a microscopic view of these technologies with the purpose of identifying elements of racism so it can be stripped from this technology. If we are able to do that, AI will have the most transformative and positive impact on our lives, irrespective of our race or gender (Line 58).”

> Crockford, Kade. “How Is Face Recognition Surveillance Technology Racist?: ACLU.” *American Civil Liberties Union*, 17 July 2023, www.aclu.org/news/privacy-technology/how-is-face-recognition-surveillance-technology-racist.

Using facial recognition presents bias and inconsistent selection from system to system. It also presents a risk of false positives/wrongful matches. The article is calling for a ban on the system being used in police enforcement. “Buolamwini and Gebru’s 2018 research concluded that some facial analysis algorithms misclassified Black women nearly 35 percent of the time, while nearly always getting it right for white men.(Line 21)”. I believe the purpose of this article is different from the previous three. I believe the purpose is because Crockfield addresses all the issues including some of the Black Lives Matter movement and other racial injustices, “To avoid repeating the mistakes of our past, we must read our history and heed its warnings. If government agencies like police departments and the FBI are authorized to deploy invasive face

surveillance technologies against our communities, these technologies will unquestionably be used to target Black and Brown people merely for existing(Line 99)".

https://www.sciencedirect.com/science/article/abs/pii/S0740624X22000892

Johnson, Thaddeus. "Https://Www.Sciencedirect.Com/Science/Article/Abs/Pii/S1051200421000968 | Request PDF." *Facial Recognition Systems in Policing and Racial Disparities in Arrests*, www.researchgate.net/publication/351163114_httpswwwsciencedirectcomsciencearticleabspiiS1051200421000968. Accessed 17 Oct. 2025.

The two key points of the article are that facial recognition just in general is associated with the risks of racial disparities in arrest rates, "Our findings revealed that police FRT use contributed to increases in B-W arrest disparities. Significant and positive FRT effects on Black arrest rates and negative effects on White rates underpinned our main disparity finding. (Line 67)". "While FRT may, on its face, appear objective and efficient, its probabilistic nature and the unintended encoding of biased values into the software raise questions about its crime control use.(Line 42)."

Sanford, Alyxaundria. "Artificial Intelligence Is Putting Innocent People at Risk of Being Incarcerated." *Innocence Project*, 21 Jan. 2025, innocenceproject.org/news/artificial-intelligence-is-putting-innocent-people-at-risk-of-being-incarcerated/.

"Facial Recognition - Innovatrics - How It Works." *Innovatrics*, 8 Oct. 2025, www.innovatrics.com/facial-recognition-technology/.

Parker, Jake. "What Science Really Says about Facial Recognition Accuracy and Bias Concerns." *Security Industry Association*, 18 Mar. 2024, www.securityindustry.org/2022/07/23/what-science-really-says-about-facial-recognition-accuracy-and-bias-concerns/.