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Facial Recognition, Past and Future

In my field of study, computer science, Facial Recognition has grown increasingly popular as a tool for law enforcement or other surveillance purposes. But this increased popularity has invited intense controversy over facial recognition, with several organizations scrutinized for its misuse. In a July 2019 opinion piece in the New York Times called "The Racist History Behind Facial Recognition," graphics editor Sahil Chinoy reveals facial recognition's extensive past to the general public, arguing that this technology and similar methods of judging appearance have always been inherently flawed. Implicit in his argument is the assertion that everyone—including computer scientists such as myself—should consider the objectivity, ethical consequences, and history of the technological advancements we pursue.

Interestingly, Chinoy strategically shames his audience toward his point of view. He subtitles the article "When will we finally learn we cannot predict people's character from their appearance?" 1, emphasizing the word "finally" to frame the sentence like a repeated reprimand to an insolent child. His persistent disappointed tone suggests we, much like children, have failed to understand something critical and obvious—namely, that Facial Recognition doesn't work. Chinoy then acknowledges the privacy concerns associated with Facial Recognition, referring to a recent scandal involving the Immigration and Customs Enforcement (ICE) as only "the latest revelation about governments employing [Facial Recognition] in ways that threaten civil liberties" 1. By suggesting the scandal is only the "latest" of many civil liberty violations, Chinoy suggests we are again failing to learn our lesson as a society: Facial Recognition is more often abused than used to its intended effect. And again we are shamed by his tone, for we have failed to recognize this obvious fact and take action against it.

In addition to shame, Chinoy appeals to the reader's instincts of justice and morality. Chinoy describes Facial Recognition as a "perpetual lineup" for law enforcement, a neverending list of suspects which would infringe on the commonly accepted protection of "innocent until proven guilty." Chinoy

also reminds us Facial Recognition has "documented problems with nonwhite, nonmale faces", thereby reminding us of the social justice concerns raised by the use of this technology, as nonwhite/nonmale individuals already experience unacceptable levels of discrimination in our society. Chinoy's main argument also contends Facial Recognition mistakenly relies on "the discredited pseudoscience of physiognomy and phrenology", to determine quality of character. These ideas, Chinoy then reminds us, were "used to legitimize slavery and perpetuate Nazi race 'science". This claim is bold as it relates surveillance technologies with the supremely evil acts and ideologies, but it reveals the stakes the readers—that the false reasoning behind Facial Recognition can have dire consequences.

Also explored are moral issues of consent and respect for the dead, as Chinoy argues Facial Recognition algorithms "are trained on people who did not or could not consent to their faces being used" and "mug shots and images of people who have died". As consent and respect for the dead remain principal moral obligations in society, Facial Recognition's inherent violation of these concepts immediately strikes the reader as wrong and inadmissible. Also striking is an integrated quotation from Georg Christoph, a "German physicist" who claims Facial Recognition "simply licensed our natural impulses to form impressions from appearance". Most people are warned as children to "not judge a book by its cover". And by ignoring that moral platitude, Chinoy suggests Facial Recognition must partake in immoral, superficial examinations of human character.

Though the topic of facial recognition relates technological fields such as computer science,

Chinoy applies an interdisciplinary approach by juxtaposing historical events with technological
advances. To support this point, Chinoy compares several pre-computer facial recognition technologies
with current advancements. One such example is a eugenecist's attempt in the 1800s to use "pictorial
statistics" to determine the composite features of "criminals" alongside recent reports of recent machinelearning algorithms developed to examine photos to the same effect. Both studies determined nothing
because they wrongly assumed "facial appearance is a reliable predictor of character". This point is
reiterated again and again with the comparison of dating apps with facial recognition and drawings of
people considered "genuine husbands". from the 1900s, or how early human resources writers "favored

analyzing photographs over interviews to reveal character" when current H.R. departments are attempting to do this today. By emphasizing the repeated, empirical failure of facial recognition throughout history into present day, Chinoy implores us to understand that this methodology of judging by appearance simply does not work, and worse, invites increased social prejudice.

Reference

1. Chinoy S. The Racist History Behind Facial Recognition [Internet]. The New York Times; 2019 Jul 10 [cited 2019 Sep 12]. Available from: https://www.nytimes.com/2019/07/10/opinion/facial-recognition-race.html