Facial Recognition Technology Policy

Facial recognition technology has become more and more prevalent in modern society, especially with the recent advent of powerful artificial intelligence algorithms. There is a wide range of applications for such a technology, including but not limited to healthcare, security, marketing, social media, and law enforcement. American law enforcement agencies in particular have been interested in using facial recognition algorithms to help them with their jobs, but this has raised serious concerns regarding privacy, data biases, and potential discrimination. Some American states have implemented partial bans on the use of such technology by law enforcement, and other areas are increasingly considering similar measures.

Facial recognition algorithms work by analyzing the unique features of an individual's face, such as the distance between their eyes, the shape and contours of their nose, and the curves in their cheekbones. These features are then converted into mathematical representations using artificial intelligence algorithms, and finally are compared against databases of known faces (U.S. Government Accountability Office). When the technology is used on videos, such as the video feed of a security camera, the algorithm analyzes the faces of people seen in each frame of the video to attain a higher accuracy.

One example of the use of facial recognition technology by law enforcement is seen in New York City. The New York Police Department (NYPD) has been using facial recognition technology since 2011 to successfully aid in the investigation of criminal activity (NYC.gov). Most of the time, the technology is being used on recordings of security feeds that have captured crimes such as burglaries, assaults, and shootings. In some cases, the NYPD uses the technology to help identify the deceased, especially in cases where the visible face is unidentifiable to humans and the bone and teeth structures can be scanned (NYC.gov).

As previously mentioned, some cities and states have banned the use of such technology by law enforcement agencies. One example is Maine, which in 2021 passed a law that bans government use of facial recognition outside of a few small cases including high-priority crimes, identifying the deceased, and fraud prevention (Chin-Rothmann & Lee 1). Some cities such as Minneapolis have also passed legislation to ban the use of recognition technologies provided by third party companies, especially ones that are known for high rates of misidentification (Chin-Rothmann & Lee 1). The common reason between all the bans on this technology is that the technology is too inaccurate to hold up in legal proceedings, especially when studies show that the rates of misidentification occur more for certain races and ethnic groups than others (Goodman 1).

While facial recognition can be a powerful tool, its current use by law enforcement should be prohibited until stricter regulations are put in place to address issues of varied accuracy, bias, and privacy. As mentioned above, some cities and states have already banned the use of facial recognition technology by law enforcement due to a few critical reasons. Studies have shown that facial recognition algorithms can have higher error rates for people of color, women, and younger individuals (Buolamwini & Gebru 1). This can lead to innocent people being misidentified as suspects, as in the case of Robert Williams, a Black man who was wrongfully arrested based on a faulty facial recognition match (Williams 1). The use of facial recognition also allows for the government to track individuals' movements and activities without their knowledge or consent, which raises concerns about mass surveillance and individual privacy rights.

As we covered in class, algorithms can often perpetuate societal biases in ways that are difficult to detect, as in the "algorithm vs hammer" example. Facial recognition algorithms, like other data-driven models, require large amounts of training data and processing power during the machine learning phase, making the inner workings of the model itself harder to interpret and audit for fairness by humans. Without proper regulation and oversight to ensure the accuracy and fairness of facial recognition systems, the risks to individual rights under the law are too high.

All in all, facial recognition technology does have the potential to help law enforcement solve crimes and protect public safety. However, the way that the technology is implemented today raises too many ethical concerns and should not continue to be used unchecked. The issues of inaccuracy and bias, as highlighted by the disproportionate error rates for certain demographics, go against the American principle of "innocent until proven guilty" and can lead to wrongful arrests and convictions as seen in Robert Williams’ case. This is not to say that such technology has absolutely no place in law enforcement - when used with strict oversight and only as a tool to assist human judgment, facial recognition technology could still provide benefits to public safety. Using facial recognition to help identify a missing child is more ethically justifiable than scanning crowds for general security surveillance.

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