Explore Task: Facial Recognition Technology as Used for Law Enforcement

2a)

My innovation is Facial Recognition Technology, specifically as used for law enforcement. This technology is meant to identify people based on key features and similarity by comparing known faces to millions of samples within a database in order to identify those who attempt to evade the law. The software creates a template that encompasses the key features of the known face and then compares it to similar features of other images in a database that are collected from driver's license images, mug shots, passport photos, etc. (Hamann and Smith). My artifact demonstrates the possible uses of FRT for law enforcement.

2b)

In order to create my artifact, I used photoshop 13.0. I created a template that was 8.5 by 11 inches and then used the text box, move, and gradient tools in photoshop. I inserted images that I found through a Google search of "facial recognition technology," "mug shots," and "crowds." I then saved the images to my home drive and then uploaded them to photoshop. When I was finished with my artifact, I downloaded it as a PDF.

2c)

One beneficial effect FRT has on our society is the increased rate of catching people who break the law. FRT has the potential to drastically decrease the number of people who remain unfound after breaking the law because they are unidentifiable. The FBI's database has over 30 million images to compare and aid in catching unknown subjects (Bump). According to NBC,

FRT can scan a video instantly and detect the person in question (Schuppe). This innovation has the ability to revolutionize law and increase the efficiency of catching criminals. However, the technology also has drawbacks. Currently, the technology is less accurate with women and people of color. According to an article from The New York Times, the technology falsely identified Asian and African-American faces more than Caucasian faces (Singer and Metz). This could contribute to a negative effect on culture by continuing discriminatory practices by misrepresenting people of color in jail and prisons. In an opinion article from Barry Friedman and Andrew Ferguson, both law professors, they analyze and debate the pros and cons of FRT. They cite a potentially harmful effect on society as an "invasion of privacy" due to the fact that law enforcement often analyzes images without consent (Fiedmam and Ferguson). However, the technology provides a valuable resource for catching criminals especially for matching known mug shots to people. Overall, FRT provides a useful resource for quickly identifying people, but should not be used until it can equally identify people of all colors and genders.

2d)

Facial Recognition Technology is based on taking images and turning them into pixels that a computer can recognize. FRT uses biometrics, body measurements in numbers, that a computer can compare from one image to another (Templeton). The software takes in an image and reduces it to its biometrics in order to compare them to millions of other images that have also been reduced to numbers. One key feature of an image is the distance between a person's eyes and the distance from their forehead to their chin. These two pieces of numerical data are combined to form a signature that is more easily compared between two images (Martin).

There are a few issues relating to the data collected by FRT. The initial concern is how law

enforcement is obtaining and utilizing the images. There is very little regulation regarding how

facial recognition software can and has been used. Many citizens are worried that the

technology is a breach of privacy because of the access law enforcement has to our faces

through ID photos, passports, and mug shots (Martin). As with anything that can detect and

recognize faces, there is always the risk of it getting into the wrong hands. There are prototype

technologies that use similar software during wars that are crafted to locate a target and kill

them. The risk of FRT being used by hackers is relatively high and can be considered a privacy

concern with regard to images and unique features that can identify any human being.

2e)

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