Face recognition surveillance essay

Face Recognition SurveillanceFacial recognition surveillance refers to a computer driven application that automatically identifies an individual from his or her digital image by a comparison of particular facial features in a facial database and in the live image.

The technology creates a template of people's facial configurations, such as the lengths of their noses, and the angles of their jaws. It thereby functions like the other biometric technologies (e. g.

iris scanning), that use biological features for the purposes of recognition. According to Visionics, a manufacturer of face recognition surveillance technology, the technology is capable of finding human faces " anywhere in the field of view and at any distance, and it can continuously track them and crop them out of the scene, matching the face against a watch list" (Kautzer).   While iris scanning and other kinds of biometric technologies are known to be far more accurate than face recognition surveillance, it is believed that the latter would be more widely accepted because it is least intrusive (Rutherford, 2001).

Unsurprisingly, therefore, facial recognition technology is known as the fastest growing biometric technology in our day. Law enforcement agencies and the military have been using the technology successfully for many years without the public being aware of it. Britain is known to use at least two hundred thousand video cameras for surveillance. Many of these cameras are being installed with the facial recognition surveillance technology today. Typically these systems use computers to monitor cameras that are looking

for recognized criminals. As soon as the system is seen to identify a known criminal, the police are called (Jarvis).

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Page # 2   There are numerous United States embassies around the world that are already using the face recognition technology to keep criminals from entering the country. The Israel-Palestine border control is similarly using the technology to reduce crime across the border (Jarvis). IQ Biometrix, established in 2001, is a company providing help to thousands of law enforcement agencies around the world with the FACESTM, which is a groundbreaking software tool allowing for the " creation and recreation of billions of facial images, as well as their encoding, cataloging and transmitting." The technology incorporates a facial composite tool that the FBI and the CIA also use.

The United States Department of Defense, the U. S. Navy, and various local as well as state police agencies have similarly opted for this groundbreaking system of facial recognition surveillance (IQ Biometrix, 2004).   There was increased interest in face recognition surveillance following the terrorist attacks on the American soil on September 11, 2001. Although the Americans had viewed the face recognition technology with skepticism before the attacks, they became confident that widespread use of the new technology in security apart from public safety would be able to protect them from similar attacks in future. Indeed, face recognition surveillance could play an important role in the prevention of tragedies. All the same, law enforcement agencies have discovered that in the areas covered by the new

technology, no terrorist has ever been identified. What is more, despite the redoubling of efforts to create dependable face recognition systems after 9/11, the technology suffers from problems (Jarvis).

How drastically the face recognition technology could help in the areas of security and public safety is yet to be discovered. It may be inferred that widespread use of the new technologyFACE RECOGNITION SURVEILLANCE

                               Page # 3around the world could save nations from the acts of terrorists. Although the face recognition surveillance is not as fool proof as the security and public safety officials would like it to be, it is an evolving technology incorporating new methods and systems of identifying the innocent as well as the criminals. In October 2001, the United States Senate subcommittee started to look into the potential use of face recognition monitors in the combating of terrorism (Rohde, 2001).

In point of fact, the government and the public at large have already understood that the face recognition technology could be very useful for security and public safety. In the wake of the attacks on the American soil, Viisage was requested to participate in a program at the Logan Airport to evaluate the face recognition technology's potential as a screening application for employees. The National Institute of Standards and Technology, which is playing a significant role in the enhancement of United State's homeland security with projects that span a wide range of study areas and by helping the military, law enforcement, building and airport security besides other entities, has also developed a team of face

recognition experts that work with federal agencies to improve computer applications with face recognition (Technologies for Public Safety and Security, 2004).   Although widespread use of the face recognition technology is yet to be realized in the United States, the future of this technology in the areas of security and public safety appears rather promising. However, there is an issue of legality that the federal statutes have not yet addressed with reference to face recognition surveillance.

The benefits of the face recognition surveillance have clouded the constitutional issues thus far. In order to understand the legality of face recognition technology, experts have to bring into consideration the Fourth Amendment. ThisFACE RECOGNITION

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Page # 4allows courts of law as well as legislatures to determine whether face recognition surveillance should be treated in the way that general video surveillance is treated with respect to legality (Bennett, 2001). Before widespread use of face recognition technology is made possible, the legality of it must be addressed.

The United States Supreme Court held in Katz v. United States that the Fourth Amendment would afford constitutional protection in those areas in which an individual expects privacy quite reasonably. These areas include private as well as public spaces. What is more, in order to search such areas, public safety officials would require warrants.

Alternatively, such a search would have to " involve exigent circumstances." What is more, for a private or public space to be recognized as one that is

outside the bounds of search, both the individual occupying the space as well the society must recognize the privacy interest in the space in question. Courts allow the use of video surveillance only in places where people do not have reasonable expectations of privacy. These places include sidewalks as well as public streets, workplaces in addition to public schools (Bennett). Another related feature of the law concerning video surveillance is that of " activity falling within the plain view of an officer since such surveillance cameras have been deemed the equivalent of robotic police officers.

" Silent video surveillance has additionally been addressed, and left unregulated. Although the " reasonable expectation of privacy" question continues to apply, Kanya A. Benett writes that " Courts have found repeatedly that warrantless video surveillance of public areas does not violate the Fourth Amendment, and it seems likely that courts will take the same approach toward public surveillance systems incorporating facialFACE RECOGNITION

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                                              Page # 5recognition software." This may be true despite the fact that the facial recognition technology is marked by an unreasonable privacy invasion, and " all individuals in the camera's path are subject to a police lineup."   Bennett's claim that the face recognition technology would not have a conflict with the Fourth Amendment is based on the fact that the new technology does not involve the kind of physical intrusion, such as the drawing of blood or the taking of urine samples, that the Fourth Amendment's searches involve. Moreover, the facial recognition technology is usually used in places where people do not have reasonable

expectations of privacy. Airports and police stations are, after all, places where privacy cannot be expected for any reason. Hence, the Supreme Court has maintained that new technological devices that enhance the senses of law enforcement are constitutional.

The Supreme Court has further held that observations using new technologies are made in areas where the police have an absolute right to be present. Such observations are a part of plain view surveillance that could also be performed without the technology in question. Finally, it has been maintained that no technology can be an intrusion where the lack of the technology poses a threat to the security of the nation (Bennett).   Richard Chace of the Security Industry Association stated upon seeing videotaped footage of a terrorist walking in the Logan Airport that if the security cameras had been equipped with the latest in face recognition surveillance, it would have been easy to prevent a hijacking (The Today Show, 2001). Instead, there is a widespread belief that face recognition technology would be of tremendous help in the security and public safety of the nation. The Americans understand that security is the Number One concern of the government.

Hence, the face recognition surveillanceFACE RECOGNITION SURVEILLANCE
Page # 6is seen as a blessing, and does not raise constitutional questions that cannot be answered. Indeed, the face recognition technology is expected to go a long way in helping the nation, and the world at large. The Fourth Amendment does not interfere with the use of this new technology.

And so, improvements in the technology are awaited in order to put the new technology to better use than before. FACE RECOGNITION SURVEILLANCE

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