## BIOMETRIC TYPE OF SURVEILLANCE IN COMBATING TERRORISM

Surveillance is the monitoring of behavior, activities, or other changing information for the purpose of influencing, managing, directing, or protecting people. Biometric surveillance is a technology that measures and analyzes human physical and/or behavioral characteristics for authentication, identification, or screening purposes.

Examples of physical characteristics include fingerprints, DNA, and facial patterns. Examples of mostly behavioral characteristics include gait (a person's manner of walking) or voice.

Facial recognition is the use of the unique configuration of a person's facial features to accurately identify them, usually from surveillance video. Both the Department of Homeland Security are heavily funding research into facial recognition systems. The Information Processing Technology Office, ran a program known as Human Identification at a Distance which developed technologies that are capable of identifying a person at up to 500 ft (150 m) by their facial features.

Another form of behavioral biometrics, based on affective computing, involves computers recognizing a person's emotional state based on an analysis of their facial expressions, how fast they are talking, the tone and pitch of their voice, their posture, and other behavioral traits. This might be used for instance to see if a person's behavior is suspect (looking around furtively, "tense" or "angry" facial expressions, waving arms, etc.).

A more recent development is DNA profiling, which looks at some of the major markers in the body's DNA to produce a match. The FBI is spending \$1 billion to build a new biometric database, which will store DNA, facial recognition data, iris/retina (eye) data, fingerprints, palm prints, and other biometric data of people living in the United States.

The Los Angeles Police Department is installing automated facial recognition and license plate recognition devices in its squad cars, and providing handheld face scanners, which officers will use to identify people while on patrol.

Facial thermographs are in development, which allow machines to identify certain emotions in people such as fear or stress, by measuring the temperature generated by blood flow to different parts of their face. Law enforcement officers believe that this has potential for them to identify when a suspect is nervous, which might indicate that they are hiding something, lying, or worried about something.

The FACE Services Unit provides FR support for closed FBI cases (e.g., missing and wanted persons) and may offer recognition support to federal partners. The FACE Services Unit only accepts "probe" photos that have been collected pursuant to applicable legal authorities as part of an authorized FBI investigation. Upon receipt of the photo(s), the FACE Services Unit searches them using FR software against databases authorized for use by the FBI, which results in a photo gallery of potential candidates.

Privacy Impact Assessments (PIAs) for the FACE Services Unit and the NGI-IPS have been prepared by the FBI, approved by the DOJ. These PIAs provide to the public an accurate and complete explanation of how specific FBI components are using face recognition technology in support of the FBI's mission to defend against terrorism and enforce criminal laws, while protecting civil liberties. The PIAs also reflect many of the privacy and civil liberties choices made during the implementation of these programs.

Facial recognition is a tool to be utilized like any other law enforcement tool. Transparency will assist in gaining public approval.

Emphasis should be placed on establishing guilt or innocence as quickly as possible.

In our time we need to discuss what technologies are available, and what their standing is in a court of law.

What is the difference, from a legal perspective, between the media taking a photo and law enforcement doing the same thing?

Closing

Finally, the FBI's strength is directly attributed to the dedication of its people who work for and on behalf of their fellow citizens. Our adversaries and the threats we face are relentless. The FBI must continue to identify and use new capabilities such as automated FR to meet the high expectations for the FBI to preserve our nation's freedoms, ensure our liberties are protected, and preserve our security. Quite simply put, we at the FBI cannot fail to meet our assigned mission. We must continue to exceed expectations and never rest on past successes.

- www.fbi.gov
  www.bbc.com
- 3. edition.cnn.com
- 4. www.wikipedia.org