

# Technology and communication paper individual

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Included in this paper will be the Biometrics that has occurred throughout the years. Then there will be the positive and negative effects of the new technologies on communication within the criminal Justice system. Finally, I will discuss which new specialized techniques that I might use and why. Biometrics History Technology affects our life daily, and it also affects the criminal Justice system, especially in communication. The criminal Justice system has different databases due to technology, and these databases operate faster than it would take humans could do.

So, the biometrics technologies can measure and analyze the human body characteristics such as fingerprints, eye retinas and irises, voice patterns, facial features and hand measurements. (Rouse, 2015) The Biometrics is another word for the specialized database it has been around for hundreds of years and provided through the new technology over the years. The Biometric history back dates to 1858 when the first systematic capture of hand images for identification purpose was recorded.

In 1992, the United States established the Biometric Consortium and in 2003 the formal U. S. Government coordination of Biometric activities began. Then in 2005 the Iris on the Move was announced at the Biometric Consortium Conference. Throughout the years many different changes and developments occurred. I have listed all the Biometrics history that associated with facial recognition, AFFIX, and Iris Scan, which are: AFFIX Facial Recognition Iris Scan 1892 Mr..

Gallon develops a classification system for fingerprints 1896 Henry develops a fingerprint classification system 1903 New York State Prison began using

fingerprints 1969 The FBI pushed to make fingerprint recognition an automated process 1994 Integrated Automated Fingerprint Identification System (BASIS) completion was held 1999 The Bi's BASIS major components became operational 013 Apple includes fingerprint scanners into consumer-targeted smartness (Biometric Update) 1960 Face recognition became semi-automated 1970 Face Recognition takes another step towards automation 1988 The first semi-automated facial recognition system was deployed and Significance technique is developed for face recognition 1991 Face detection is pioneered, making face recognition possible 1993 FacE Recognition Technology (FERRET) program is initiated 2000 The first Face Recognition Vendor Test (FORT 2000) was held 2001 In Tampa, Florida used the face recognition at the Super Bowl 2004 The Face

Recognition Grand Challenge began 1936 The concept of using the Iris pattern for identification was proposed 1993 The development of the Iris prototype unit began 1994 The first Iris recognition algorithm is patented 1995 Iris prototype became available as a commercial product 2005 US patent on iris recognition concept expired (Biometrics Gob. ) Biometrics Comparison In this section will provide the definition of the following specialized databases. The Automatic Fingerprint Identification System or AFFIX is define as computerized software is used to analyze digitized images of an individual fingerprints and ampere them to other images that is stored on a database, in search of a potential exact or partial match.

Then the Facial Recognition Software is a computer scan with the ability to scan, store, and recognize human faces and used to identify people. Finally, the Iris Scan is an electronic eye scan that can scan your eye from about <https://assignbuster.com/technology-and-communication-paper-individual/>

CACM away also for identification purposes. All three of these databases are to help improve the way criminal Justice system can identify criminals faster and more accurately. Each of this biometrics has strengths and weakness to the way the work. Yet, out of this three specialized databases the iris scan is the most accuracy according to the Biometric Product Testing Final Report then have done over two million cross-comparison and none of those test came back with false matches.

Whereas the AFFIX accuracy compared to the iris recognition; the fingerprint incorrect rate changes by the vendor and is roughly 1 in 100, 000, where the iris recognition false rate is 1 in 1. 2 million statistically. Also, the fingerprint system measures around 40-60 characteristics, where iris recognition analyzes 240 characteristics to create an Resided. Radian Technology) Compare to Facial Recognition capability to scan large crowds and population without invading and able to pick out individuals that might fit a particular description of its database. It also uses a AD model and captures images with real time stamped dated. The Facial recognition gives structural details of an individual face and able to capture images at any angle, and its false rate is 15%. (Downed, 201 5) Here is a comparison of three types of specialized databases strengths and weaknesses and, even though, these databases might not be perfect they do serve their purpose. As one can see the weaknesses and strengths are as the follows: Biometrics Strengths Weaknesses OAF'S \*Easy to use \*Economical for PC user authentication technique \*Good Accuracy \*Small storage space \*It's standardized \*Scan multiple fingers \*Accepted by civil law enforcement/forensic gob. \*Low false rejection rate and false acceptance \*Low incidence of " outliers" \*Image

captured at 500 dots per inch (dpi). Resolution: 8 bits per pixel. A 500 dpi fingerprint image at 8 bits per pixel demands a large memory space, 240 Subtest approximately Compression required (a factor of 10 approximately). It make stakes with the dryness or dirty of the finger's skin \*Most uses physical contact with scanner devices \*Based on occupation (Radian Technologies) \*Non-limousine \*Cheap Technology \*First level scans with low-security \*Easy to Deploy by using a standard CATV hardware \*High quality images has AD \*Lighting, age, glasses and head/face coverings \*Requires PC's include cameras as standard equipment \*Privacy Concerns \*Secondary processing is needed for surveillance operations \*Great Accuracy \* Verification within 5 seconds \*Capability to handle large populations at high speed \*Convenient to all It is stable throughout an individual's life time \*Intrusive \*Hug memory for the data to store \*Expensive (BROOKS) \* Eyelashes, lenses, and anything that would cause a reflection \* Violates a person's right of freedom if forced to use at airports and border checks

Positive and Negative Communication The use of technology has both positive and negative significances are the people can relocate and reconnect with old friends and family members with social networking. The positive side of technology is that you can use social networking to stay in touch with friends and families.

The mobile phones, computers, laptops are invention for calling, texting or emailing anyone. Within the criminal Justice system, their communication advances are similar to societies when it comes to the cell phones and computers. But technology has expanded their database communication by AFFIX, Iris scans, Facial recognition that are linked throughout the United

States and some foreign countries too. With this technology, the criminal Justice system will be able to communicate and gather further information on those that could be a possible threat, criminals or references. There are those who believe that technology has a negative impact on everyone.

For example, the social networks, cell phones, texting all can be a distraction while driving or at work. The negative effect on the criminal Justice system and the way officers gather, store, and share information and data and the growing of technology causes people to have to be trained over and over to keep abreast of the new types of technology. The constant changing of technology causes problems due to the time it may take for an officer and person to learn the ever-changing forms and uses of technology. Another negative aspect of technology is that it costs to upgrade many of the devices I. E. Computer systems, cell phones, etc. ND everyone may not possess the monies required to improve these devices every year.

Weather the communication is positive or negative in normal society or in the criminal Justice system it is a necessity to be able to communicate with one another. New Specialized Technologies Well, the new specialized technology that I use is the fingerprint recognition it is part of my security on my computer. I like it because one it's easier to use than remembering a password. It keeps my computer safer I do believe, and I wish that it was not so expensive, or I would have it on my lockers and everything that I hold dear. But I also found the iris scan quite fastening because no-one can duplicate it like fingerprints or facial recognition.

Even though I like the fingerprint security, I still find it challenging to use because if you don't place your finger just right it will not work and it could lock you out of your system completely. Conclusion In life, it is critical to have communication and technology is continuously changing. As technology is continually changing the way people communicate, the criminal justice system must also enhance their communication to be able to keep up with upcoming technologies. In 2008, U. S. Government begins coordinating biometric database use; in 2010 U. S. National security apparatus utilizes biometrics for terrorist identification, and in 2011 Biometric identification used to identify the body of Osama bin Laden. (NEST) So this specialized database has become useful throughout the years and will keep advancing in the future.