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Brain Fingerprinting – A Scientific Technique for Solving Crimes

Dr. Vinod Kumar*

Assistant Professor, PG Department of Computer Science, Dev Samaj College for Women, Ferozepur City

Abstract – In the field of criminology various technological innovations have signaled milestone changes in how the system conducts investigations. One such new technology carries with it an emerging potential to revolutionize the investigatory landscape Brain Fingerprinting. This technique is believed to be the finest lie detector on hand and is said to identify even those criminals who pass the polygraph test i.e the conventional lie detector test with ease. The new method employs brain waves, which are useful in detecting whether the person subjected to the test, remembers finer details of the crime. Even if the person willingly silent or keeps secret the essential information, the brain wave is sure to trap him.BF has proven 100% accurate more than 120 tests, including tests on Special Force agents, tests for an Intelligence agency and also for the real-life situations including lawbreaking crimes. This technique is based on finding that the persons asked to lie show different patterns of brain activity than they do when being truthful.

Keywords: Technology, Electroencephalography, Role, Applications, Limitations

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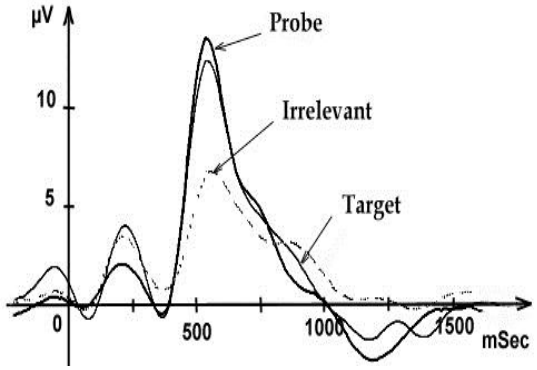
1. INTRODUCTION

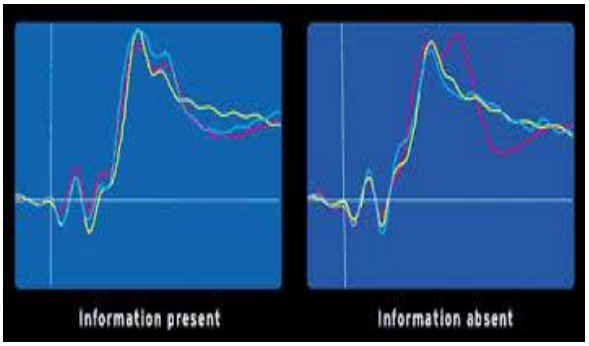
American neurologist Dr Lawrence A Farwell., an expert in brain wave science, was the inventor of Brain fingerprinting. It is an invaluable technique which is based on the principle that the brain is central to all human acts. In any crime, there may or may not be various essential evidence, but the brain is always there, planning, executing, and recording the crime. The related metaphors should trigger memories of criminal. BF is based on the theory that throughout any action, the criminal brain plans the act, records the procedure, and executes all of the actions. Such details, all hidden within the brain, can now be exposed through brain fingerprinting technique. This technique calculates that how brain waves of a suspect can respond to specific words or pictures flashed across a screen. Images appropriate and also unrelated to the actions, are shown. It is a scientific technique to determine whether particular information is stored in an individual brain or not. This technique can be applied only in circumstances or conditions where investigators have a sufficient amount of detailed information about an event or activity that would be known only to the criminal and Investigator. Brain Fingerprinting is also called a Guilty Knowledge Test. The strategy for compute the legality of a suspect's "guilty" knowledge depends on evaluation of physiological indicators such as palm sweating, heart rate and blood pressure during the test. While this technique measures electrical brain activity via a fitted headband containing special sensors that sense that a person who wear a headband is tell a lie or not.. The basic dissimilarity between a criminal or innocent person is that the criminal, having committed the crime, has the details of the crime stored in his brain, and the innocent suspect does not. This is what Brain Fingerprinting detects scientifically.

2. TECHNOLOGY:

Brain fingerprinting technology uses electroencephalography to get the existence or nonexistence of data in a suspect's mind based on his response to particular circumstances. The electroencephalogram (EEG) is a technique to compute of brain waves which is actually the neurophysiologic measurement of the electrical activity of the brain by recording from electrodes placed on the scalp or, in special cases, on the cortex of the suspect. The suspect to be tested wears a special headband with electronic sensors that calculate the EEG from numerous locations on the scalp. MERMER (Memory and Encoding Related Multifaceted Electroencephalographic Response) is a brain response which comprises of emission of an electrical signal known as P300 from an individual's brain beginning approximately 300 milliseconds after it is confronted with a situation. The subject views stimuli consisting of words, phrases, or pictures display on a computer screen.



It is discovered that this system is computer controlled, which includes presentation of the stimuli, electrical brain activity recording, a mathematical data analysis algorithm that analyze or correlate the vibes to the three types of stimuli and outturn a assurance of "information present" or "information absent.



3. APPLICATIONS OF BRAIN FINGERPRINTING

3.1 Counter Terrorism

Brain fingerprinting technique can help to deal with the following serious fundamental issue in the fight against terrorism:

1: Aid in conclusive who has engage in terrorist acts, directly or indirectly.

2: Help to identify people who are associated with terrorist teams and acts.

3: Helps to determine if an individual is in a leadership role within a terrorist organization.

Now, attacker and, murderer those supporting terrorism can be identified quickly and accurately. No longer should any terrorist be able to escape for lack of evidence. And there is no explanation why an innocent person should be falsely behind bars or convicted of radical action.

3.2 Criminal justice

Brain fingerprinting testing represents a new prototype in law administration and it has now been consider as scientific evidence in court. A criminal justice system has the responsibility to identify the committer of crime. Before the invention of this technology there was no way to picture the difference between a guilty person and an innocent person. The role of a judge and jury is to prove guilt or innocence and with the aid of this technology, they are able to arrive at a decision using it as evidence.

The estimation is that this testing will have a profound impact on criminal justice system. This technique can appreciably improve the speed and correctness of the entire system, from investigations to parole hearings. It will be capable to considerably decrease the expenses associated with investigating and prosecuting blameless community and allow law enforcement professionals to focus on suspects who have provable, complete information of the crime.

3.3 Advertising

Brain Fingerprinting testing adds a whole new dimension to the methods of measuring advertising effectiveness like through it we come to know what specific information do people retain from advertising- Do they remember the product, the company, the retailer, the website, pricing and promotional information etc., what do people pay attention to or respond to the most in an ad what gets their attention , which type of media is most effective if an advertising campaign that uses multiple commercials or multiple printed messages, which version is the most effective at reaching the target audience, does a person or group of people remember the specific brand being advertised. All the above mentioned possibilities can be addressed by the use of Brain Fingerprinting.

3.4 Medical

There are certain diseases for which there is a critical need for a technology that enables early diagnosis economically and that can also accurately measure the effectiveness of treatments for these diseases. With early diagnosis, the progression of symptoms of these diseases can often be delayed through medications, dietary and lifestyle changes. Using the very accurate measurements of cognitive performance existing with this technology, pharmaceutical companies will be capable to resolve rapidly the effects of their latest medications.

The non-invasive nature of P300/MERMER testing technology and the straightforwardness of its administration will permit that primary care physician to keep an eye on the progress of their patients in their own offices and adjust treatments accordingly.

4. LIMITATIONS

If the suspect knows the whole thing that the investigators know about the crime for some justifiable explanation, then the test cannot be

applied. There are a number of situation in which this may be the case. If a suspect acknowledges being at the sight of the crime, but claims to be a witness and not a criminal, then the fact that he knows particulars about the crime would not be incriminating. There would be no reason to conduct a test, because the resulting "information present" response would simply demonstrate that the suspect knew the information or fine points about the crime which he already admits and which he gained at the crime scene whether he was a witness or a criminal. There are one more problem is that what is the motive of the suspect to do that type of act, cannot be identified properly by brain fingerprinting. If the suspect knows the whole thing what would be ask by the tester then he/she can easily control his/her mind and may give inaccurate statements confidently and could not be trapped by the device. We human have some limitations about memory and it could affect the procedure because if the incident is forgotten from the memory it could be useless, but this could be lesser because the criminal may not forget this kind of activity. Even in appropriate cases: "The technique, however, can't be used on the mentally ill, heavy alcoholics and 'might fail on a habitual criminal.'" Authorities have no information about what crime may have taken place.

5. CONCLUSION

Brain Fingerprinting is a innovative scientific technology for solving crimes, identifying criminals , murders, perpetrators, and relieve innocent perdsons, with a record of 100% accuracy in research with government agencies, actual criminal cases, and other applications. This technology fulfills the critical necessity of governments, law enforcement agencies, corporations, investigators, crime victims, and untruly accused innocent suspects.

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Corresponding Author

Dr. Vinod Kumar*

Assistant Professor, PG Department of Computer Science, Dev Samaj College for Women, Ferozepur City

E-Mail – vinodkumarkamboj@gmail.com