Psychological Profiling in Criminal Investigation
H.V. Acharya*, J.M. Vyas**

Introduction:

Human being is intertwined with emotions and thoughts which are manifested in different forms of behaviour. He judges the situation in a contextual frame of mind. Therefore, every individual will have a unique way to respond to the situation. As a human tendency every individual has a desire to know as to what the other person thinks of him and vice-versa. When we meet one person, based on the reference to a situation and context we try to form an opinion of the individual. Profiling is delving interference upon the available information, witness and evidences. Profiling is done by each and every individual and in each and every situation but with different perspective. Profiling is a technique which is used in our everyday life.

Profiling is an advanced investigative tool and its effectiveness is still under a lot of scientific scrutiny. An Indian would shake his head from left to right in an affirmative gesture or expression, while a Caucasian by doing so would indicate a denial gesture or expression; while an owl in the Middle East is looked upon as a bad omen, in the west it symbolizes wisdom, and so on…

It is accepted that in the evolution of human race physical features emerged from their inherited behaviour due to a specific environment and way of adaptation. Let’s take for instance an African negroid’s thick lips evolved due to an adapting
process to help preserve moisture. An aborigine of Australia or Papua New Guinea
developed thick eye brows to protect his eyes from sun rays. A Bedouin desert
person did so with a larger or longer nose to help him breath better in desert climate,
and women living in hot and humid terrains tend to have a larger bottoms to preserve
body fat etc…

Profiling for the law enforcement and criminal justice systems involves
psychological assessment of the offender. The assessment contains socio-
demographic information viz. age, gender, marital status, education, occupation and
the social and psychological attributes of the offender.

It is one of the important technique through which a forensic expert can help
the investigator to find the root cause of the crime. The forensic expert through his
psychological acumen examines the crime scene, police record, statements of witness,
medical records and corroborates them with the suspect’s psychological test findings
and other procedure (such as ANS and DNS based procedures) to prepare a forensic
profile[2].

Howard Teten (the grandfather of profiling) defines profiling as a method
which identifies the perpetrator based on the analysis of the nature and mode in which
the crime is committed. The criminal’s personality will define his preference of the
victim and his behaviour before, during and after the crime. The correlation of the
behaviour exhibited at the crime scene and available physical evidence will deduce
the personality typology and psychopathology of the criminal.
It provides specific information about the offender to the investigating agency regarding the crime and his involvement in the crime. In early days although profiling was done informally; with the invasion of different test and techniques, profiling has become more scientific and precise. Profiling goes back in history to the middle ages, and Scotland Yard took it a step further. While Sherlock Holmes character made it even more popular, the CSI series of late has been filling the partly empty cup of thirsty TV viewers.

Freudian theory of profiling:

Freud’s psychoanalysis has emphasized on the human being’s basic instinct: sex and aggression and how does it influence an individual’s mental state. Freud has also emphasized on faulty upbringing of the child which leads to mental illness / neurotic personality. Research studies have shown that children who have unhealthy childhood are more prone to crime. Dr. Thomas Bond, a police surgeon was invited by the investigating agencies to study the case of the killer, Jack, The Ripper, who had claimed to have killed five prostitutes in Whitechapel, London 1888. He applied the Freudian principles to the given case. Based on the limited information and evidence, Thomas Bond believed that the offender must be of good physical strength, great composure and daring. The offender must have been a middle aged, inoffensive and quiet man. He must be neatly and respectably dressed. The offender must be in the habit of wearing cloak or overcoat or he could hardly have escaped notice in the streets if the blood on his hands or clothes are visible. This attempt of profiling made a noteworthy contribution in the field of forensic science. Thereafter, John Douglas has done 12 pages of profiling of this case but it had not resulted into identification of the criminal. The profiling done by John Douglas was based on available medical
reports, crime scene photographs and police investigative reports, which probably
does not give the detail evidences compared to today's investigative style. [13]This
effort placed profiling on the center stage of investigation.

Walter Langer, an American psychoanalyst did the profiling of Hitler on the
request of Gen. William J. Donovan. Walter has not personally interviewed Hitler but
he had interviewed the associates of Hitler and Investigating agencies. His analysis
led to the inference that Hitler’s personality was a result of mixed and divided
psyche. He said that the Hitler was probably “a neurotic psychopath bordering on
schizophrenia” and at the Office of Strategic Services (OSS) Hitler’s profiling was
divided into five general sections:-

1. How Hitler viewed himself
2. How German people viewed him
3. How his associates viewed him
4. Psychoanalysis and reconstruction
5. His likely future behaviour

Langer’s profile suggested that Hitler in all probability will commit suicide.

Being a psychiatrist, Dr. James Brussel, heavily relied upon the
psychoanalytical theory. Prior to this case, Dr. Brussel during his army service had
cured many patients. He was given a case wherein the bomber was placing the series
of explosive packages. Over a period of 16 years he had planted bombs in main
cinema theatres and telephone boxes. On the basis of a letter written to Con Edison
(the electricity company in New York) he profiled the offender as unmarried, foreign,
self- educated, in his 50’s, living in Connecticut, and paranoid. [Table 1] Based on this
profiling, the police was able to arrest George Metesky in January 1957, a foreign
born Roman Catholic. Late Brussel was asked to do profiling of the case of 13 sexual homicides between 1962 to 1964, to which he opined that all the 13 crimes are done by one offender. After several months; Albert DeSalvo was arrested who later confessed to the crime, although it was not proved. Brussel applied his Freudian analysis on the case and he portrayed the picture of the probable culprit.[10]

<table>
<thead>
<tr>
<th>Table 1 George Metesky Profile</th>
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<tbody>
<tr>
<td><strong>Profile</strong></td>
</tr>
<tr>
<td>Bomber is a male</td>
</tr>
<tr>
<td>Letter mentioning Con Edison</td>
</tr>
<tr>
<td>Bomber was a textbook paranoid.</td>
</tr>
<tr>
<td>Bomber was middle-aged probably around 50</td>
</tr>
<tr>
<td>Paranoids tend to set high standards for themselves so as not open themselves to unwanted criticism.</td>
</tr>
<tr>
<td>Foreign or spent the majority of his time with foreign people</td>
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<tr>
<td>The bomber had at least a high school education but probably no college.</td>
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<tr>
<td>The bomber was a Slav and probably</td>
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</tbody>
</table>
Roman Catholic | Europeans most often employ bombs as weapons. Most Slavs are Catholic.
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The bomber lived in Connecticut | The letters had been mailed from Westchester Country (a location in between Connecticut and New York) and Connecticut was home to large communities of Eastern and Central Europeans.
The bomber suffered from an Oedipal Complex | The phallic construction of the bombs; the strange (and breast-like) W's in the bomber’s otherwise perfect handwriting and the strange slashing and penetration of the movie theatres seats.

IP (Interpersonal) Approach to Profiling:

Prof. David Canter, psychologist, London, UK was invited by Scotland Yard to solve the case of “Railway Rapist”. According to David Canter, the offender was in late twenties, of small stature, reserved, married but no children and lives in the small town of Northwest London, which matched with available evidence. Based on his profiling, the police was able to nab John Duffy in 1988. He was found guilty.

Although David has observed that the investigating agencies are often reluctant to change and opt for newer techniques to catch the criminals. He has extensively used IP methodology for profiling. According to him, psychology has a direct relationship with crime, as it is perceived as interpersonal transaction between the criminal’s action, social context and personality trait. He has postulated five approaches for profiling.
1) Interpersonal Coherence:

A criminal chooses his victim based on his special characteristics. For eg., there is some anecdotal evidence that serial killers only attack those of the same ethnicity as themselves in United states (Canter, 1989). The profiler will be able to establish the relationship between the victim and the offender and the probable conversation at the time of the crime.[5,7]

2) Significance of time and place:

The offender generally picks up the victim from the place which is more familiar to him. He would possibly select the victim from his nearby location as he will feel completely in control of the environment and the victim. He would observe the period which would help him in committing a crime as well as running away from the crime scene.

3) Criminal Characteristics:

By observing and analysing the crime scene, the offender will be able to give a picture of the characteristics of the offender namely, his physical qualities, his appearance, his apparel, mental make up, mood and psychopathology, if any. Douglas & Olshaker (1995) have stated that “We set about to organise and classify serious crimes by their behavioural characteristics and explain them like mentioned in Diagnostic Statistical Manual (DSM) of Psychiatry. The serial offenders will tend to operate within an area where they feel comfortable (e.g., close to their own homes) and has many similarities to the independently developed field of geographical profiling.[20]
4) Criminal Career:

The offender although cautious of his move in the next crime, his specific style of killing will not be different. The peculiarity of committing the crime will vary from offender to offender although not always the type of crime. Although he might do more refined crime however his methodology of crime will not any significant change. His style of killing will help in trapping the offender.

5) Forensic awareness:

Often the serial killer is conscious of destroying any evidence from the place of the offence. The rapist is more likely to clean the undergarments of the victim or force her to comb her pubic hair so that the evidence is not available. These type of steps clearly give an indication of the offender being aware of the police/forensic investigation.

Vi-CAP (Violent Criminal Apprehension Program):

Robert Ressler served in US Army and thereafter joined FBI, Behavioural Science Unit (BSU) in 1970 and retired in 1990. In a service span of twenty years he has made significant contribution to psychological profiling of violent offenders. He has drawn the psychological profiles of violent offenders who typically select victims at random, such as rapist and serial killer. He has interviewed 36 serial killers to study the background and motive of serial killer.

He has set up Vi-CAP (Violent Criminal Apprehension Program) which collects the data base of the suspects of unsolved crimes. He has written books on Serial murder like I have lived in the Monster: Inside the mind of the worlds most notorious serial killer, "Crime Classification Manual: A Standard System for
Investigating and Classifying Violent Crime. He has done psychological profiling of Jeffery Dahmer and Richard Chase.

Robert Ressler et.al (1988) has given six steps for profiling:

1) Profiling Inputs:

The physical documents like investigation documents, crime scene details, photographs, autopsy report, post mortem report are studied as a part of the first step toward profiling. These are the basic and preliminary requirements to sketch the criminal.

2) Decision Process Model:

In this stage, the offender’s intention, motive, risk factor of the victim/offender is assessed and evaluated. Has the offender done any planning or it is just a spree killing?. How much time the offender has taken to commit the crime as well as the offender’s selection for committing a crime says a lot about the criminal. The analysis will also give a clue as to whether the crime was homicide or not.

3) Profiling process:

This is the heart of the profiling. The profiler steps into the shoes of the victim as well as the offender and thereby reconstructs the crime scene. He determines whether the crime was an organised or disorganised. By reconstructing, the overall impression about the crime i.e., how the offender behaved, what could have happened between the victim and offender, how the victim was selected and so on. Common characteristics like type of wound, position of the body observed at the crime scene helps in determining the type of offender
4) Criminal Profile:

Depending upon the inputs available, the profiler based on his experience and knowledge constructs the profile. Profiler will include the general appearance, probable age, gender, religion, interpersonal history, his relation with the victim, socio-economic background, educational and occupational history, his motive behind selection of the victim and his reason for the Modus operandi used for the crime. The profiler also proposes the strategies to catch the offender and also the interrogation methods.

5) Investigation:

Based on the submission of the profile given, the investigating agency starts to look out for the criminal. In due course of investigation, if the officer finds more information, he forwards to the profiler for a more relevant data. The profiling is said to be successful only when the criminal is caught and confesses about the crime.

6) Apprehension:

When the criminal is caught, the profile developed is compared with the profile made by the forensic expert and is thereby compared, so that a perfect profile is generated.

John Douglas worked in FBI from 1970 to 1995. He started his career as a sniper and then became hostage negotiator. He taught hostage negotiation and applied criminal psychology at FBI academy. He has extensively worked with the most notable violent criminals and sex offenders. His skill was to examine their habits and thereby predict their moves. He has been instrumental in identifying famously known “The Green Killer”. He gave some of the most interesting insight about the motive,
mind and operation of the killer. He has done high profile cases like Case of Jon Bonet, Ramsay murder, The West Mermphis three. He has authored “Mindhunter: Inside the FBI’s Elite Serial Crime Unit” and more..

Roy Hazelwood is the pioneer in profiling of sexual predators. He joined FBI in 1971. He has done lot of sex crime cases related to sexual sadist, their victims and their mode of offence. According to his theory, there is no cure for pedophilia or sexual sadist. Presently, he is consultant to FBI agents and law enforcement agencies to trap the sexually oriented murderers. He felt that fantasy is a fascinating area which is extremely relevant and gives a better understanding about offender. His first case “Harvay Glatman” the Lonely Heart Killer inspired him to work in the area of profiling. Thereafter, he worked on “Gerard John Screefar” who was involved in autoerotic practices and had committed 29 murders.

In 1980, Roy and John Douglas wrote an article which distinguished crime in two broad categories i.e Organised and Disorganised crime.

CSA (Crime Scene Approach):

Earlier FBI was the agency who has used psychological profiling in investigation and this gained popularity. The renowned profiler like John Douglas and Robert Ressesler also wrote several books on profiling and their professional experience in the field of investigation.

Accordingly Holmes & Holmes (1996) provided Crime Scene Approach (CSA) which was broadly based on crime scene and crime. It focused more on the physical evidence available at the place of the offence and its relation to the crime. The two types of offenders involved in the crime are
1) The disorganised asocial offender

2) The organised Non social offender

1) The Disorganised Asocial offender:

The disorganized asocial offender is depicted as someone who is below average intelligence, manifesting some kind of psychiatric illness, not having the capacity to maintain interpersonal relationship apart from his immediate family members, sexually incompetent. He would act more impulsively and usually acts with whatever weapon is available and thereby leave it at the crime scene.

He will be more authoritative with the victim. His overpowered victim is killed with brutality (FBI, blitz attack, Douglas & Olshaker, 1995) The offender dehumanize the victim and sexually assaults, mutilates the face, genitals and breasts which is commonly observed. The dead body is left at the crime scene rather than disposing anywhere else. (Holmes& Holmes 1996, Ressler, Burgess & Douglas 1988, Ressler & Shachtman, 1992)

While the organized Non-social offender although well educated is an under achiever and is a failure in occupational life. He is socially well settled, will probably have a family life but often manifests antisocial or psychopathic personality. The crime scene will portray the the ability to organize and execute the plan. The offender often has his own weapon and carries with him after committing the crime. The victim targeted is mostly a female who is raped by threat/restraints. The killing performance is done as per the offender’s fantasies, usually in slow, painful manner. The body of the victim is carefully disposed off.
Inductive and Deductive Profiling

Brent Turvey has done his graduation in Forensic psychology and has given his contribution in the area of forensic science, criminal profiling, victimology and crime reconstruction. He is a court qualified profiler. He has given the theory of Inductive and Deductive profiling and Behavioural Evidence Analysis

Inductive Profiling:

It assesses and evaluates similar characteristics of the crime committed by different criminal. It studies the common personality trait of the criminals involved in a similar kind of crime. The inductive profiling is based on the theoretical and experimental study of the criminal behavior. It identifies the signs and symptoms of criminal behavior and puts together as a comprehensive profile. The inductive profile is the product of statistical or comparative analysis and results in education generalization, hence the use of the term “inductive”. (Criminal profiling: An introduction to Behavioural Evidence Analysis, Brent Turvey, 2006, pg 26). The characteristics of the criminal is reasoned, correlated and thereby statistically inferred. The profile focuses on the psychological trait, the modus operandi, victimology and other crime scene characteristics which are evenly seen in the crime. The inductive profiling does not need specialized forensic knowledge, education or training in the study of criminal behaviour.

Thus profiling is based upon the information delved from past history, media and sometimes from the criminals. It does need the formal knowledge of psychology, sociology, criminology and psychiatry. Inductive profiling is effective only and only when there is some similarities between the crime.
Deductive Profiling:

The knowledge and application of psychology, sociology, criminology and psychiatry plays a vital role in deductive profiling. The profiler has to construct the mental picture based on the crime scene and the available physical evidence, as physical evidence also sometimes the gives the clue for non-physical evidence. (love, hate, jealousy..) The deductive profiling is process oriented wherein the investigator will review the crime scene, analytical thinking and logistics to come to behavior analysis evidence. (BEA)

More emphasis is given on the study and analysis of post mortem report, forensic report and victimology. This profiling is time consuming because it has to look at the various factors in one particular crime and thereby give profile of a criminal and the mentality/ psycho pathology of the unknown killer. It analysis the behavior manifested at the time of the crime, the physical and behavioural evidence pattern related to the crime.

Compared to inductive, deductive profiling is time consuming as it evaluates the unknown criminal from different angles, although the combination of inductive and deductive profiling will give an accurate profile of the criminal. The deductive criminal profile includes the following : ”.( Criminal profiling: An introduction to Behavioural Evidence Analysis, Brent Turvey,2006, pg 41).
Behavioural Evidence Analysis (BEA)[25]

1) Equivocal Forensic Analysis:

   It includes detail understanding of crime scene, post-mortem report, interview with accused/witness/ victim/suspects and other related in the crime, and the background of the victim

2) Victomology:

   It studies as to why a particular victim is chosen for the crime, how was he related to the crime and when did the crime happen. A lot of it depend upon the selection of victim by the offender.

3) Crimes Scene characteristics:

   The scene of offence implies about the relation between the offender and the victim. It gives a clue as to whether any interaction took place, what were the circumstances under which the crime has occurred. etc.,

4) Offender Characteristics:

   What was the personality of the offender. It determines the offender’s physical characteristics and marital status at the time of committing a crime. It helps in deciding the personality traits like physical built-up.

Geographical Profiling:

   This technique is provided by Criminologist; Kim Rossno, which evaluates the location of connected serial crimes to determine the most probable area of offender’s residence. It is most effective when a series of crime is committed. It determines the most likely location of a criminal’s residence based upon the
geographic location of crime sites by mapping crime and analyzing patterns at crime scene. Geographical profiling is generally useful in the serial crimes (Murder, rape, arson, bombing), predatory crime (child abduction, sexual homicide) and Multiple location crimes (credit card usage, property crimes) [26]

Geographical profiling is based on RAT (Routine Activity Theory) which studies the methodology that makes criminals motivated to do a crime at a particular place. It addresses the geographical importance at the time of committing a crime. RAT is based upon three components: 1) Motivated offender 2) Suitable victim and 3) the absence of capable guardian. Canter (2003) used Dragnet, a computerized system which gives the probability of the location of crime where the criminal is likely to commit the crime. Canter and Larkin (1993) gave circle theory of environmental range which states that the criminals are likely to live in the vicinity of the victim as the victim is easily and quickly approachable. A circle is drawn that encompasses all the linked crime which will establish the criminal’s location. Rossomo (2000) suggested that the criminals are often in the neighbourhood of the victim. According to a study (2005) Snook et al, in 63% of the cases the killer lived within the radius of 6 miles from the place of offence. It further found that the young offenders tend to travel less while the people with higher I.Qs( or is it older) travelled farther.

Limitation:

Although, profiling is an impressive investigative tool it has not resulted in an actual arrest of any criminal. (V. Gerberth, personal communication, Feb 6, 1995) It does not solve the crime but it provides better understanding of the case. Profiling requires understanding of human behavior, background of extensive criminal investigative experience together with proper academic and forensic training. It is
important to know that not all the crimes are suitable for profiling.[7] Crimes which needs psychological, social, cultural and psychopathological assessment are appropriate for profiling viz. serial killer, serial rapist, serial arsons, child molestation (Hazelwood & Burgess, 1995) Cases involving destruction of property, assault/murder during the robbery are generally not suitable for profiling. Drug induced crime does not reveal the true personality of the criminal, hence the profiling is not suitable.

Conclusion:

Though profiling is considered as an ineffective tool for drawing conclusions, though it has been used in every field. It is an effort to evaluate and understand the human behavior on different occasions and in given situations. When we review the literature on profiling, the ineffective tool of profiling has been used time and again all over the world in different situations and efforts are made to draw conclusions. Over a period of time, it has evolved as an art when blended with scientific principles and which can prove to be an effective tool for investigating and understanding human behavior on different occasions. Here the author has made an attempt to review the literature with reference to crime investigation.

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Cyber profiling: An investigative tool of Cyber Psychology

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Abstract:

There is radical change in today’s crime occurrence. Earlier the crime which were more dominated by conventional crime viz. killing, stabbing or kidnapping have been replaced by crime using advanced technology like mobile telephones, satellite phones and internet. The email hacking, website hacking, crimes involving chat rooms, exchange of confidential information and blackmailing of exposing the confident personal information like photos, video or other details. From the last few years, the ratio of cybercrime has increased. The cyber profiling has become the need of an hour to curb the hidden/ unidentified criminals working through cyber space. The criminal profiling has given success of 77 % percent in assisting the traditional criminal cases. The criminals involved in cybercrime are literate and have functional knowledge of computer and Internet. These types of crimes done by young adults and who are addicted to hyper culture like city culture. This paper focuses on the factors, which influences the criminal to commit the crime.

Keywords: Cyber psychology, Cyber profiling, Cyber crime, Investigation

Introduction:

Earlier to the days of cyber space, the use of phone was done to do crime. Mostly the crimes like money laundering, kidnapping calls or obscene calls to the victim. Kevin Mitnick, was the first identified phone “phreaker”, (an activity to
illegally/unofficially intervene into the telecommunication system of the victim and thereby connect to public telephone networks.) and was convicted for his act. Later it was learned that Kevin suffered from obsessive-compulsive disorder, a psychological illness in which the individual does not have control over his thoughts/ actions. In 1979, Kevin also intruded and had unauthorized access to network system implemented by computer systems vendor DEC (Digital Equipment Corporation) He was caught in 1988. As he was juvenile he was jailed for 12 months followed by supervised release of three years. Due to his compulsive trait, he continued with the activity of hacking. He hacked the voicemail computers of Pacific Bell and many other computer networks using the cloned analogue mobile phones to hide his location. When he was again arrested, he had 100 mobile phone codes and multiple fake identities to execute the crime in a sophisticated manner. In spite of his long-term imprisonment he was diagnosed as “Personality disorder” and was ordered to take psychological therapy for his mental problem.

Another person, Gary McKinnon, a Scottish citizen hacked the USA’s most guarded military computer. He was looking for information, which can be easily shared with the public. He searched for energy suppression and cover up of UFO activity, which he though would be harmless to government and useful to the people. He was also charged of hacking the about 100 United States and NASA computer systems. He deleted the critical operational files and information on weapons and material of advanced technology. Subsequently the US government had loose of $ 800,000. During his trial it was reported that Mc Kinnon having Asperger syndrome because of which his detainment was reduced.
The cyber criminals uses electronic gadgets and Internet as a tool of the crime or incidentally to the crime. Often the criminal combines the use of technology to give consequence to the crime. For eg: The terrorist makes use of social web for conspiracy and to connect and to the likeminded people across the world, embezzlers cracks the password and swipes the money from the bank or company account.

Psychological profiling has been widely studied for the offenders who are using Internet and social networking sites. The Internet is the access to connection to friends and relatives, professional/ business deals, money transactions, for leisure activities like downloading movies/music or games and making new friends across the globe. From old to young generation, each and every person connects to Internet in one-way or other. The life without Internet and social networking sites seems to be unimaginable in today’s world. Most of the people are dependent on the Internet for their work or information. Because of which, cyber world has progressed by leaps and bounds by being accessible on the mobile handset.

The criminal mind has been using internet/ social web as a tool for criminal activities. The crimes like money laundering; hacking, phishing, fraud and cracking passwords are commonly heard now days. The professional hackers have acumen in cracking the password and passing on the relevant and important data to the rival company or enemy country. These professional possesses good knowledge about the computers and programming and they are specific about their target object. Often they undertake work when they are heavily paid. They are given specific target and time limit to complete the task, although the use of the given information is not revealed to them. The information obtained by such means has a goal to purposefully financially the opponent party. There are trained hackers who professionally teach the method of
hacking the computer system of the company. In the field of investigation these professional hackers are hired to find out the hidden intentions and modus operandi of the financial scam while the forensic psychologist are hired to do psychological profile to the culprit to understand the personality trait as well as the psychopathology/ psychological illness which has influenced him to do the crime. Police departments to assist in apprehending the criminal can then use this profile. The FBI does the criminal profiling under the name of “Criminal Investigative analysis” while as few other forensic psychologist refer as “Investigative psychology’ or Crime action Profiling” [1] Although this technique is most effective in homicide investigation and in the repeated crimes where the offender has an explicit pattern to execute his role.

A profile is a psychological sketch of an offender. Based on the crime scene the forensic psychologist can opine about the person who committed the crime. This technique is effectively applied in homicide investigations. This technique is most effective when the investigating agency does not have any clue of evidence/ witness in the case. It is used to get help agencies in detecting the crime rather than proving the guilty. Based on the crime scene, the profiler develops the psychological picture of the offender. When there is a distinct and unique modus operandi is observed in similar types of crime, the psychological profiling becomes effective. The investigating agencies catches these psychopaths, serial killers and other types of offenders such as arsonists and rapists based on the expert’s profiling technique. This technique studies whether the criminal is organized, disorganized or is a combination of both. Organized criminal plans out his method of application and thereby executes it. While the disorganized criminal works on his impulse. He tends to be quick in response to the stimulus. [2]
Psychological profiling has been widely studied for the offenders who are using Internet and social networking sites. The Internet is the access to connection to friends and relatives, professional/ business deals, money transactions, for leisure activities like downloading movies/music or games and making new friends across the globe. From old to young generation, each and every person connects to Internet in one-way or other. The life without Internet and social networking sites seems to be unimaginable in today’s world. Most of the people are dependent on the Internet for their work or information. Because of which, cyber world has progressed by leaps and bounds by being accessible on the mobile handset.

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personal desire is to satisfy their ego, curiosity or thrill factor in life. A special cyber cell investigation cell is established to curb the impetus force of cyber crime.

The forensic expert for the criminal who possesses the fake identity and does not have any physical evidences against him makes the psychological sketch of the criminal. It includes mental characteristics like his mental make up, his education, social life and any other abnormal habits. This technique helps narrow the field of suspects and may help exclude some persons from suspicion. Profilers use both statistical data (inductive profiling) and "common sense" testing of hypotheses (deductive profiling) to formulate profiles. Profiling is only one of many tools that can be used in an investigation. It helps the investigating agency to focus on the outline provided by them. Although it is not evidence based it helps the investigation to narrow down and focus on the culprit. The criminal who uses the computer / internet as a tool to commit is known as cybercriminal and the investigating agency who tries to studies the psychology and studies the personality, abnormal trait, motive, advantage and outcome of the criminal is called cyber profiling.

Cyber profiling is used in various sectors and for different purpose. In corporate sector, the Facebook page of the candidate is studied and creates a profile picture. The language, comments, tags and uploaded picture will inform about the candidate’s upbringing his social / friends circle, his association with the other interest area and his hobbies and habits. A thorough analysis of his social group and his page cover is done and then the candidate is called for the interview. How well the suspect matches with his net profile is tested during the interview, which will describe his genuineness and honesty rate. How well the individual is authentic in providing information to the society is depicted through his profile makeup. The employee who
is working for the company manipulates the database or steals the confidential data/information of the company for a financial return. [3]

The cyber profile of the individual who is engages himself in such crimes have typical personality characteristics and often manifest the signs of mental illness which are broadly defined as follows:

- They possess good understanding about the hardware and software of the computer programming. They tend to have degree in information technology. They are passive aggressive people who are aloof from the society and prefer to remain in their own shell. They actively participate in debates and discussion on Internet using fake identity. They oppose the conventional law and aggressively rationalize their point of view. For example; a professional hacker who breaks the password of the company and steals the data and sells to the competitive company.

- They have greed for money and fame. These individuals has desire to live life king size. They are unable to justify more income than received salary. They have more bank accounts probably in different cities and countries. They prefer to work independently and avoid working in team/ partnership. For example; a bank employee will make use of his computer access to divert funds from someone else’s account to his own. The young, old, male, female belonging to any socio-economic class can fall into this category.

- These individuals want to have thrill by outsmarting others. They tend to show their technical skills not for personal gain but to earn credit or to establish intelligent reputation amongst the group. They often hack the website/ email account and inform the details about it to the account holder. This
adventurous attempt is although not always fun purpose but also to take harm the other person. They are manipulative in their behavior. For example a teenager hacking into copyrighted music/ videos. Often they do illegal entry into official restricted websites to flaunt their acumen. As they are not into serious harm to anyone and are doing it for “Fun Purpose” they tend to get caught by the law enforcement agencies.

- The negative/ neglect from the other person will result into strong feeling of rejection and despair, which results in revenge, the most destructive emotion of mankind. These individual ruins the life of the person who has hurt or neglected them. They often past the obscene remarks/ photographs/ videos and harm their chastity and character. For example rejected lover/spouse does cyber stalking, email harassment and does the unauthorized access to the partner’s email accounts.

The other group is religious fanatics who vent out their religious and political views and instigated the public to do anti social activities (crime) in the name of religion and mankind. This is observed to be the most influential medium for the terrorists to provoke the public and join the group.

- The individual who are alone and are devoid of work or occupation hooks on to the social networking sites. Their main goal is to pass the time and have a joyride with the stranger who will accept him/her without any conditions or liabilities. These isolated and take it easy type of attitude people is the soft target for serial killers, scam arsonist and cone masters who are on constant hunt. With the help of these sites, these criminals peep into the personal life of the victim, study his/ her personality and vulnerability, which can make them the prime victims of the crime.
• These group of individuals have psychological disturbance / illness because of which they adhere into the habit of cybercrime. Mental illness like autism, Asperger (ASD) and obsessive-compulsive disorder patients are more prone to cybercrime. As a part of the characteristic of the illness these individuals tends to remain aloof and in isolation. They have minimum contact with social life. They get engaged into persistent effort and does not detach from the own self so easily. They are extremely sensitive to the response of the other person and because of it they escape from the situation.

Cybercriminals can use computers and networks as a tool of the crime or incidentally to the crime. Apart from the professional hackers, stalkers and terrorists, another group is emerging who targets the layman for their personal benefit. Some cybercriminals use the Internet to find their victims. They use their office computers or corporate emails to hide their identity. This includes scam artists, serial killers and everything in between. These groups of people are those individual who are daily surfing on the net and chat on the social websites and personal chat rooms. They make friends with a fake identity and thereby establish close relationship with the net partner. They share pornography and pedophilia sites [4] to attract victims. The information is gathered about the victim’s family, socio-economic status, habits hobbies, needs and desires and thereby identifies the target for his crime. The victim’s daily routine and his/her probable time of being alone is observed by the offender which will help to execute his plan of crime. The law enforcement agencies perform sting operations to catch such type of criminals.
Conclusion

It is observed that the hackers, stalkers, phreakers are highly talented. They have good knowledge about the information technology. They enter into criminal activities with a specific motive and intention to harm financially or personally. They do the crime either to impress or to attain the thrill factor in their life. They tend to use their technology acumen to attract the population and also gain name and fame from it, not realizing the outcome of the crime. Now there is another emerging category of criminals who had informal understanding of Internet system and has only free time to chat with the strangers on the net.

There is an approach to behavioral change that spans elements of defined psychological science and the relatively new discipline of business best practice.

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ઉદ્ધર્ય:

Institute of Behavioural Science, GFSU

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   (b) ફાસ્ટ રોડ વધારણા : -
   (c) પોલીસ પ્રાર્થના / પ્રભાવક ફાઇલ : -

2. પોલીસ સ્ટેશન : -

3. ગુજરાત રાજકીય સંદર્ભ અને દિવાસ : -

4. વાહનનું નામ : -

5. પ્લાન / સ્થા : -
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   ૨મે વાર : -
   ૩મે વાર : -

6. સેલનું નામ : -

7. પરિસ્થિતિ / અલગકાળ : -

8. આગ્નેય વિગત : -

9. અમીરના સુ-ભાવિત સૂચના પુસ્તક વિગત : -

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11. દિવાસી તથા વચ્ચે તેમજું વાળું : -

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13. મેન્યુલ વિગત : -

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Dated: 1-2-2014

To,

Dr. Hema V. Acharya
Institute of Behavioural Sciences
Gujarat Forensic Science University
Gandhinagar, Gujarat, India

Dear Sir / Madam,

I am pleased to inform you that your article entitled "The Study of the Influence of family parenting and substance abuse on rape, seduction and murder by "wom" authored by Hema Acharya & J. M. Vyas has been accepted for publication in this journal.

This article will appear in Volume 17, Number 102, of year 2014. It is humbly submitted that hard copy of this issue will reach you by December 2014 due to our long list of publications.

Yours Sincerely,

Editor

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Dated: 1/5/2014  

To,
Dr. Hema V Acharya  
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Gujarat Postgraduate Science University  
Gandhinagar, Gujarat, India  

Dear Sir / Madam,

I am pleased to inform you that your article entitled “Psychological Testing in Criminal Investigation” authored by Hema V Acharya, has been accepted for publication in this journal.

This article will appear in Volume 16, Number 2 of year 2014. It is humbly submitted that hard copy of this issue will reach to you by July due to long list of publications.

Yours Sincerely

Editor

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