

This book endeavors to discover a new trait of police culture – technophobia – that I have observed as a police officer and embarked upon this project to unearth its raison d’être. I have found that there are five main universal causes of police fear of not using technology especially information and communication technology (ICT). In the first place, cop culture has a pet aversion to the learning of new skills and information sharing; secondly, ICT has led to the erosion of police discretion and the idea of ‘real police work’; thirdly, information technology has enhanced organizational accountability; fourthly, ICT has led to the civilianization/pluralization of police work and lastly, ICT has created new hierarchies and job structures. Understanding of police technophobia is important for police leaders and other public safety professionals as it has wide range operational and policy implications. The new security environment has redefined policing as an ‘information brokering service’. And the post 9/11 and other world counter terrorism scenarios has ushered in an era of multilateralization and pluralization of policing and the police.

POLICE TECHNOPHOBIA



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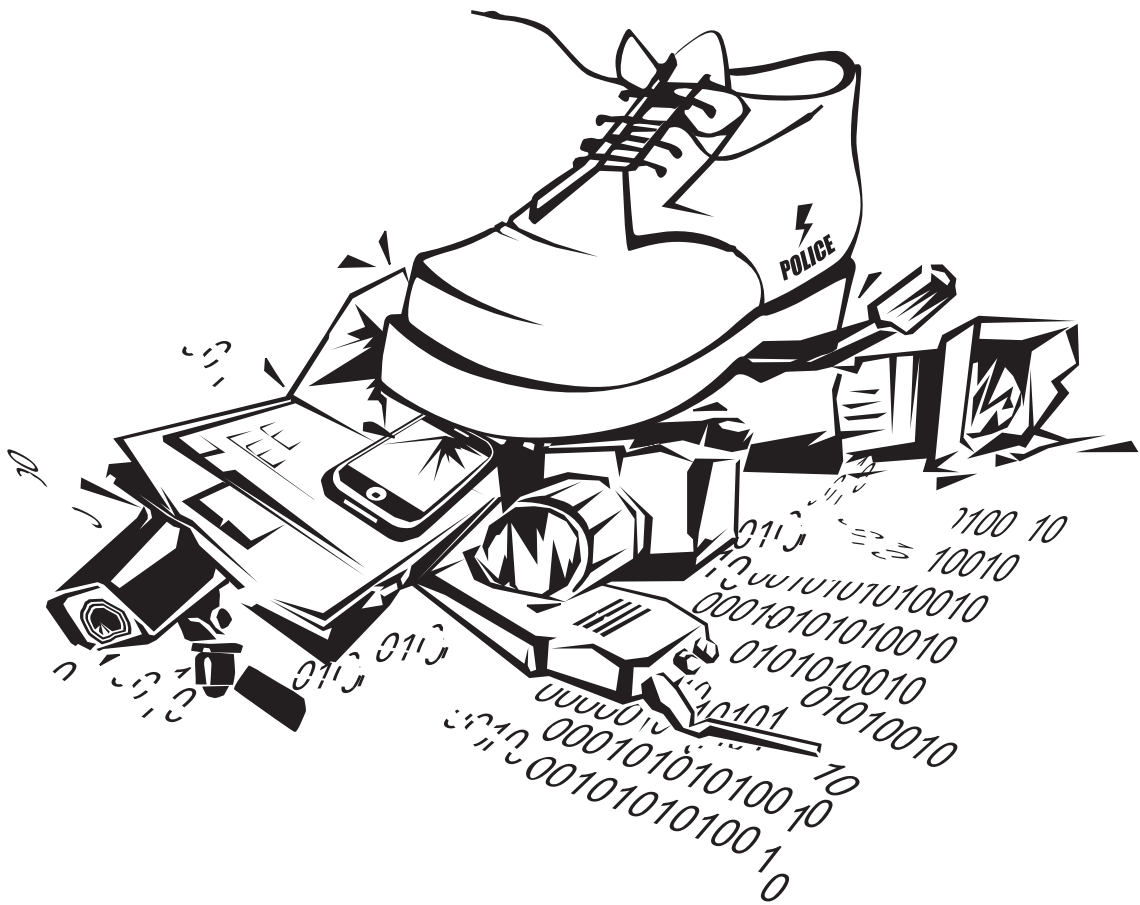
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Police Technophobia

Muhammad Quraish Khan

POLICE TECHNOPHOBIA



Muhammad Quraish Khan



to
my father

Nowshad Khan



for his
lifelong love,
support

and

encouragement



FOREWORD



The engagement of police forces has become increasingly complex and the use of modern technologies is more evident and needed than ever before. Police engagement, training, and the use of these technologies nowadays is certainly much more demanding.

Applying modern technologies is at the heart of any strategy for improving public safety and security. It is the foundation of police work and its special service for investigations and later prosecution of the offenders. This core strategy must not be forgotten amid our newly developing highly sophisticated investigative strategies.

Those who have worked with Muhammad Quraish Khan know him as a person, colleague and police officer who is appreciated by his counterparts and international colleagues for mainly one reason: He is committed to his service, committed to improve the service of his Forensic Lab by implementing proper trainings and newest technologies.

His examples in this book on Police Technophobia describe the real world in police as I can state from my own experience. Having talked to Quraish and being told he has published this book I



was surprised at first. There are seldom, very rare, publications that touch the field of Technophobia in Police. Reading the book I fully agreed with Quraish on the different topics mentioned, although some topics should or could be elaborated a bit more.

However, thank you, Quraish for this publication, open words, about Police Technophobia. I am sure it will contribute to the change of thinking, the mentality, of some officers.

Michael Schulte-Schrepping
PhD in Criminal Justice
Investigation, Operation and
Prosecution Expert





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EXECUTIVE SUMMARY

This book endeavors to discover a new trait of police culture — technophobia — that I have observed as a police officer and embarked upon this project to unearth its *raison d'eter*.

This text is divided into five chapters. The first chapter gives an introduction about the concepts of police culture and police technology. It further narrates how police culture resists the advent of new technology and how police culture adapts new technology. Chapter two deals with the types and history of police technology starting from the eighteen century nightstick and comes up to to the recent developments in policing technology like the DNA's, lie detectors and geo tagging. In chapter three, the genesis of police technophobia is explored. and thus the following five main universal causes of police fear of not using technology especially information and communication technology (ICT) have been found.

In the first place, cop culture has a pet aversion to the learning of new skills and information sharing. Cops believe that they can learn everything on the streets and many aspects of policing cannot be taught in sterile environment of classrooms of police training institutes. This point of view is further reinforced by the prime traits of the police culture: cynicism, conservatism and pessimism. Similarly,

they are averse to information sharing: they are retired from service and take their personal information diaries to the grave but do not share it. However, information technology makes them share information in a meaningful way, both vertically and horizontally. Secondly, information age has led to the erosion of police discretion and the idea of 'real police work'. They believe that using the IT equipment is not the real police work: the real police work is the robust law enforcement, making arrests, interrogations, sting operations and huff and puff of hot pursuits. The use of cyber space gadgets has made the police data filling clerks. There is no thrill in it. Thirdly, information technology has enhanced organizational accountability. The ICT has put them under a microscope and thus it has reduced their powers. ICT is like a big boss breathing over at police staff shoulders all time. Fourthly, ICT has led to the civilianization or pluralization of police work. Every new ICT related equipment brings a civilian in the police department. The civilian or non-sworn officers then become the analysts or consultants and do performance audit of the uniformed police. They become masters of comparative statistics and thus believed to be the Oracles in the police although they are operating outside the main police culture. Lastly, ICT has created new hierarchies and job structures. The rigid layers of command and control are melting away. New network type hierarchies came into existence where staff members can interact across all

ranks and files. Leading from the front role hardly exists. The ICT has also altered the job structures. Many police jobs now do not look like police jobs at all.

The fourth chapter is a critique on the actual use of information and communication technology by the police forces world over. It demonstrates how police culture actually resists the use of new technology both at street level and management level and what happen to technology when it is partially accepted.

The last chapter aims at a conclusion where the future policing - as *information brokering service* - has been analyzed with reference to the growing policing role in counter terrorism scenarios which has led to major shifts in the policing styles all over the world.

Understanding of police technophobia is important for police leaders ,police reformists and other public safety professionals as it has wide range of operational and policy implications. As stated earlier the new security environment has redefined policing as an 'information brokering service'. And the post 9/11 and other world counter terrorism scenarios has ushered in an era of multilateralization of policing which means, inter alia, more computers, acceptance of more civilians in the police

departments, large number of fusion centers, across the board accountability and establishment of output based budgeting regimes.



I lost my fighting spirit...I am a human being. When I see something that is well beyond my understanding, I am afraid.

Garry Kasparov

Chapter 1

INTRODUCTION

To many readers the topic under discussion may seem to be of a debunking nature in a sense that every body observes that the police are in full use of technology and, *prima facie*, no aspect of daily police work demonstrates any traces of technophobia. Nevertheless, as a police officer my interest in this topic developed when I witnessed the first glimpses of this phenomenon during early days of my police career in Pakistan. Later on, I searched for the symptoms of technophobia in police working and embarked upon a full scale research to locate the germs of this disease in the universal police culture during my studies in the UK, the USA and Australia. The book is based on participant observations, interviews and review of research literature. Globally speaking, it is evident that technophobia exists in every police culture but in the developed world it is cloaked and submerged in the main traits of police culture while at less developed places it is overt and can be seen with naked eyes.

Five various incidents invited my attention toward the police fear of technology which I have

found as an integral part of the mainstream police culture. Some of these incidents are the causes of technophobia while some are the product of technophobia.

To begin with, during my field training attachment at Swat district in Pakistan, in 2004, where I found that provincial government spent huge amount of 25.175 million rupees on the police stations computerization project in this district only. The project completed in two years time and then I witnessed that the new system was never allowed to work and ultimately it got derailed within a span of six months. The local police viewed the computerization project as 'anti police' as it was widely believed that old system of manually writing the incidence reports was better than the present one that is generated by computers. Resultantly, the computers were found lying in dust covers and the information technology staff, hired for the project, was shifted to police offices to work as typists. Victoriously, the old manual system of writing daily diaries, information reports logs and other inventories making system was brought back in the police stations.

Later on, in 2008, the National Police Bureau (NPB) initiated another project in the name of Automated Fingerprint Identification System (AFIS) with total outlay of 1107.014 million rupees but this system is still not operational in many places and it

has hardly delivered any substantial results so far. The connectivity link between the districts Remote Terminals and main server is always down and in some places, like Khyber Pakhtunkhwa, the century old system of fingerprinting suspects and convicts is still done on manual ten print cards which are dispatched to forensic lab or crimes branch to be kept in 18th century wooden pigeonholes.

In 2010, after span of two years, a new project called Police Record and Office Management Information System (PROMIS) was started by the NPB. This initiative was aimed to connect all police stations and district police offices of Pakistan to ministry of interior, to do teleconferencing between different provincial police headquarters and to ensure that every district of Pakistan could generate an electronic Daily Situation Report (DSR). The project cost was 1405.04 million rupees. The system was installed but never operationalized for host of reasons like procurement and consultancy issues.

To embark upon the quest to explore technophobia in the police, I visited the police telecommunication wing at Peshawar where I found a huge heap of broken handheld two-ways radios and wireless base sets. The store incharge informed that the policemen frequently break these gadgets and deposit it in the telecommunication workshop for repair. After repeated major repairs now the stock is

beyond repair and it is just an electronic garbage to be disposed off.

Lastly, I came across an incident which is the direct corollary of the rampant technophobia prevalent amongst the senior management cops. The story goes like this: on one occasion when junior police officers were controlling public disorder in Mardan district, the district police chief deliberately kept his wireless radio set and cell phone switched off when a junior command level officer was seeking his expert opinion, or directions vis-à-vis the crowd control strategies and policies. Resultantly, the junior officer got detached from the vertical senior command and the public disorder management operation ended in fiasco and the situation snowballed into large scale urban riots for couple of days. Later on, I came to know that this is a routine practice especially during public disorder operations or during other kind of crisis management where senior police officers somehow manage to get themselves detached from the ongoing developments in the police operations where they feel that their detachment is *necessary* as they want to observe *the code of silence*. And almost all post-crisis departmental audit and judicial enquiries end up on this enigmatic note: “police operation failed because of communication problems.” These *communication problems* are primarily related to the use of police technology - more precisely to police technophobia. Before describing the causes of these

“problems”, I would briefly dwell upon the idea of technology and technophobia in general.

The word technology originated from the Greek word *technologia* where *techne* means “craft” and *logia* “saying.” It is a broad term dealing with the use and knowledge of humanity's tools and crafts. Broadly, the word technology has three definitions and uses: firstly, it refers to tools and machines that may be used to help solve problems; secondly, it may also include technical methods, skills, processes, techniques, tools and raw materials, and lastly, it can also be viewed as an activity that forms or changes cultures.

Lukasiewicz (1994:73) maintains that 'Technology is inflexible, intolerant, and unforgiving ...its operation demands strict adherence to prescribed rules, and therefore constrains the behavior of its users.' But, in the process, the users some times offer overt or covert resistance to technology. This confrontation is precisely known as technophobia. Webster's dictionary defines technophobia as 'the fear or dislike of advanced technologies or complex devices and especially computers. Technophobia exists in history but the advent of the information technology has now made it more common and prevalent in all walks of life.

Gupta (2001) describes the generic symptoms of technophobia:

1. Resistance to automating processes
2. Critical of any technology changes or implementations
3. Resistance to new technology initiatives
4. Unwillingness to attend training classes
5. Slow to learn new technologies
6. Providing excuses for not attending training sessions
7. Relentlessly arguing the lack of need for technologies
8. Pleading, "the old way is the best way!"
9. Convincing colleagues that "I have made it this far without technology. Why now?"

Even in English literature, one can trace technophobia like in works of Mary Shelly's *Frankenstein*. Electronic media has made technophobia a staple especially after the *Terminator* and *Matrix* series. The fear of technology can also be traced back in the political philosophy of Karl Marx who contends:

All kinds of capitalist production... are not merely labour processes, but also processes for promoting the self-expansion of capital , they have this in common, that in them the worker does not use the instruments of labour ,but the instruments of

labour use the worker.'(Das Capital, 1867)

History is replete with examples of technophobia where one can find traces of this kind of mind set .The Luddites' movement in the eighteenth century is the case in point and in modern times the living example of this phenomenon can be witnessed in the Amish community across the Atlantic: they do not use modern technology like electricity, automobiles or cell phones.

The various manifestations of modern technophobia are now more evident in use of the information technology and social media. Brosnan (1998:11) succinctly describes the psychological foundations of the fear of technology in his work and discards the widely accepted view that the fear is related to the age factor. He further argues:

There was an original assumption that technophobia would be a transitory phenomenon, common amongst the older adults who had missed out upon technology in their education ... [but here is] some research indicating that as computers are appearing in schools, children are getting increasingly computer anxious at an earlier stage.

Technophobia in general is beyond the scope of this work; this work is primarily concerned with police officers' fear of not using technology with

special focus on their aversion to information and communication technology (ICT). For the purpose of triangulation, the technophobic aspect of police work has been analyzed from various perspectives drawing upon the research literature conducted on both sides of the Atlantic and in Australia.

It is evident from research literature that police technophobia has a symbiotic relationship with police culture and it is also universally acknowledged that police culture can not be fathom out easily through quantitative research techniques. There are different reasons for this. Firstly, it is the police cynicism that overt and covert gatekeepers inside the police organizations do not allow the researchers to fix their research huts in police stations as suggested by Norris (1993). Secondly, police are known for telling lies to the researchers world wide. They are also known for the crime figure manipulation and this is what Reiner (2000:220) also points out:

Ultimately there is no way of knowing for certain whether what police do in front of observers, or what they say to interviewers, is indented to present an acceptable face to outsiders.

The policing guru, Reiner (2000:219) also laments over the other problems associated with police research and he believes that, in the context of police research, the practice of participant

observation technique is also not of great significance as some time the lack of rapport with the participants in the surveys does not allow an in-depth analysis of police culture. He further states:

[w]ith observational work there is the problem of whether the researcher has the trust of the subjects of the researcher, and how their behaviour may be modified by the presence of the researcher.' (ibid)

Reiner (2000:218) aptly describes the peculiarities of policing as research subject as 'dangerous' and 'dirty work'...there are other aspects of policing which makes it hard to uncover information which the subjects wish to keep hidden.'

The other important issue related to police research is that it is some how easiest to understand the street cops but more difficult to understand the management cops as they always present themselves in more pleasant light to the media and the researchers.

And more specifically special problems are associated with researching police technophobia because mostly researchers fail to comprehend the submerged technophobia in police culture.

However, my previous policing experience has provided me an edge which has helped me in locating

police technophobia in daily police work. My exchange of notes and interview with a hundred police officers from the UK, the USA, Australia, Egypt, South Korea, India and Pakistan has build a consensus that technophobia exists at certain level; at some places it is open and at some level it is covered in many garbs. All the above countries police officers had interesting stories of police technophobia ranging from street cops to senior management cops.

This book is divided into five chapters. Chapter two deals with the types and history of police technology starting from the nightstick to the recent developments in the DNA's role in crime reduction and investigation. In chapter three, I will look into the following five main questions which nurture police technophobia or *i-technophobia* (sic).

1. To what extent does the cop culture has a pet aversion to the learning of new skills and information sharing?
2. Does ICT lead to the erosion of police discretion and the idea of 'real police work'?
3. Has information technology brought an enhanced organizational accountability?
4. In what respects do ICT lead to the civilianization of police work?
5. Are new hierarchies and job structures

generated through the ICT?

The fourth chapter is critique on the actual use of information and communication technology by the police forces world over. The last chapter aims at conclusion where the future policing - as *information brokering service* - has been analyzed with reference to the growing policing role in counter terrorism scenarios which has led to major shifts in the policing styles all over the world.



Chapter 2

TYPES AND HISTORY OF POLICE TECHNOLOGY



Before describing some aspects of police technophobia, it is necessary at the outset to encapsulate the genesis of police technology through ages. The history of technification of American police work is well documented that is why, in this work, plenty of examples are quoted from the States police; Seaskates, Inc (1998) divides the history of police technology in America into three main periods: political period, professional model era and crime nationalization. The political period dates from 1840 to about 1920 when the politicians and the police, in many urban areas, had cozy and mutually beneficial ties. In addition, police jobs were for sale and many officers would take bribes. During this time, the police came to be armed with only two forms of *technology* - guns and nightsticks.

The period from 1920-1970 is called the professional model era that had the following salient features, as Seaskates, Inc (1998:7) describes:

[R]eformers sought to rid government of

undesirable influences and created what they deemed professional police departments. Such departments sought to stay out of politics, provide good training and tighter discipline, take advantage of *technological development*, [emphasis added] and, most important, emphasize the crime-fighting role of the police.

The Seakates, Inc (1998) report further unveils that has emphasized discipline and centralized decision-making and technology were considered as the solution to 'the chronic and vexing policing problems.'

In 1964, crime became part and parcel of politics when the Republican candidate, Barry Goldwater made crime, for the first time, a national political issue. Goldwater lost the election by a wide margin to the incumbent Lyndon B. Johnson, but now the Americans became more concerned about crime. Therefore, the Republican strategies of the 1964 presidential campaign may properly claim recognition for raising the crime issue to national prominence. Lyndon Johnson appointed the President's Commission on Law Enforcement and Administration of Justice. In 1967, the Crime Commission produced a 308-page report, *The Challenge of Crime in a Free Society* that offered more than two hundred recommendations, *eleven dealing with police technology*. The report had a 227-page task force report on criminal justice science and

technology. (Gerald, 1973).

Consequently, 'the federal government [for the first time] became committed to "doing something" about crime on America's streets and neighborhoods. Hundreds of millions of dollars went to fostering police use of existing and new Technologies' (Seaskates 1998).

The history of policing demonstrates that the political engine behind it reinforces the technification of police work. However, Chan (2001:3) unveils the real motives behind the urge of police technification:

In policing, technological changes are driven by three analogous imperatives: to improve effectiveness and efficiency, to meet the requirement of new form of police management and accountability and to satisfy the demand of external agencies for information.

But on the other hand Manning (2003:144) contends that little is known about the fact that how technology is introduced and adopted because police organizations try their best to cover up their actions 'in spite of media mendacity and rapaciousness.'

The police technification, which started in the 17th century with a gun and a nightstick, has now moved 'from a labour intensive to a capital intensive

occupation'. Dupont (1992:2) reports.

The present day police organizations are equipped with seven types of technologies as classified by Nogala (1995:199). These include: mobility, intervention, surveillance and detection, identification, organization and administration, communication and information technologies. Nogala (1995) identified these types without giving any account of them. However, Soulliere (1999) has provided a time line of police technology on both sides of the Atlantic, encompassing Western Europe and North America. His timeline has been incorporated in Nogala's classification below that is an arid description and just an inventory of technology but it is necessary for the understanding of police technophobia as onwards I shall frequently use the terminology of technology.

2.1 MOBILITY TECHNOLOGIES

This type of police technology is the most conspicuous in nature. This includes horses, bicycles, motorcycles, various kinds of automobiles, emergencies vehicles, armoured personnel carriers and helicopters.

a. Mounted Police

It refers to police patrolling on horseback.

Normally horses are used in situations like dispersing crowd, in parks, processions, student rallies and football matches. Mounted police are also effectively used in wilderness areas. They are still used in the US ,the UK and Canada. This sort of policing is perhaps the first attempt towards *technification* of police work in human history.

b. Police Automobiles:

They may be any vehicle for two to eight individuals, used any where in the world for patrolling, detaining criminals or suspects. These vehicles are specifically upgraded and modified for higher durability, speed capability and also accommodate the relevant police paraphernalia such as laptops, sirens, radios and so on. Police cars may be marked with the word 'police' having blue light beacons and sirens. It may also be unmarked to catch suspects unaware. These cars do not have any visible marking imprint to be identified by suspects, normally in the unmarked cars the sirens are hidden and the police light are placed behind the back windows or windshield. Ford Crown Victoria Police Interceptor is the standard patrol car in America. General Motors and Diamler Chrysler also provide police cars. However, American police began the widespread use of the automobile in 1930s.

c. Emergency Vehicles

It may be any vehicle used in an emergency. It carries loud sirens and light on top of it. Emergency vehicles are usually dispatched from a control room that takes calls from an emergency number, such as 911, 999 or 15. There are different types of emergency vehicles:

1. Police Bicycle
2. Police Motor Cycle
3. Fire Engine
4. Tow Truck
5. Ambulance
6. Bomb Disposal Squad
7. Specialized Vehicles

d. Armoured Personnel Carriers (APCs)

This is primarily a military vehicle but in those countries where the policing style is based on the paramilitary model, these vehicles are used in some special operations especially in the counter terrorism or counter insurgency operations. They are usually fitted with machine guns.

e. Police Helicopter

They are usually used in developed countries such as the US, Canada, Western Europe or Australia

for traffic control, high speed vehicles pursuits, search and rescue and riot control. These helicopters are equipped with cameras, radars, searchlights, flashing lights, beacons and police rescue equipment. However, these helicopters do not carry weapons.

f. Segway PT

The word Segway is derived from a French word *Segue* that means smooth transition while PT is an abbreviation for Personal Transporter. It is a battery powered, self-balancing, two wheeled vehicle. This machine was invented by Dean Kamen of New Hampshire USA. These days many police and public safety organizations use Segways for patrolling the parks, shopping malls and university campuses. Segways are preferred over police motorbikes or cars because of its maneuverability, responsiveness and versatility. It gives police officer ability to manage large crowd controls effectively and response to emergency situations whether indoors and out door. It can move easily in narrow spaces. It gives wide area of visibility to the patroller and thus it connects the patroller to the community as if the officer is walking on the foot.

2.2 INTERVENTION TECHNOLOGIES

Intervention technology mainly includes weapons and protection equipment. Police use two types of weapons: less lethal and lethal. In the less lethal category those weapons are included that do not cause unbearable pain or a permanent damage to human body.

a. Flexible Baton

This is a baton with a handle attached at a 90-degree angle near the gripping end. Its versatility and effectiveness eventually make the side-handle baton standard issue in many police agencies.

b. Tear Gas

Tear gas is used to control riots or disperse an unruly crowd. It causes temporary incapacitation through irritation of eyes or respiratory system. The commonly used chemical compound is lachrymator used in tear gas. Another one is called CS or 2-chloro benzalmalononitrile: it is a substance that is used as a riot control agent. Two Americans, Ben Carson and Roger Staughton developed CS in 1928. To date these chemical compounds have been used world wide by police forces. Other popular tear gases include the eye irritants CN and CR and the respiratory irritant OC pepper spray.

c. Wooden, Rubber, Plastic Bullets and Dart guns:

As a substitute of revolver and baton, concerted efforts have been made in 1960s to develop riot control technologies. As a consequence, wooden, rubber and plastic bullets were adopted. This development was followed by dart guns injecting tranquilizers when fired. An electric fired water jet was also adopted.

d. TASER

It is another successful technology where two wire-controlled tiny darts are shot into a victim or his/her clothes delivering a 50,000 volts shock. This is made by TASER International. The name Taser is an acronym that means "Thomas A. Swift's Electric Rifle", named for the science-fiction teenage inventor and adventurer character Tom Swift. Arizona inventor Jack Cover deigned it in 1969.

e. Water Cannons

It is a device that shoots a high-pressure stream of water often over hundreds of feet. This is used as riot control instrument.

f. Pepper Spray

This was first developed in 1982. Its major

component is Oleoresin Capsicum which is synthesized from hot peppers. It is used in riot control and crowd control management. It causes inflammation in the eyes and thus visually handicaps the victim temporarily. The police officer then can easily restrain or arrest the person. It is also used in personal defense.

g. Lethal Weapons:

Samuel Colt invented the first multi –a shot pistol in 1850 and was produced on large scale. Immediately after its production, the weapon was adopted by the Texas rangers and then by the police agencies nationwide. However, in some countries police are equipped with the military-style semi-automatic firearms called assault rifles such as AK-47.

h. Protection Equipment

If the law enforcement agencies are conceptualizing an executing technology for controlling law and order situation, they also try to protect the police personnel and thus various body armours and personnel protection equipment (PPE) have been manufactured for police protection. These equipment are not only comfortable but also are very effective in protecting the lives from onslaughts. Many of these PPE like mask, gloves, shoe covers,

goggles, long gowns are used by crime scene investigators (CSIs) or crime lab staff.

i. Ballistic Body Armor

These are hard protective clothing, which are made to absorb the forceful attacks. It has the capacity to absorb the impact from firearms, projectiles or shrapnel from explosions. Soft vests are made from woven or laminated fibers and capable of protection small caliber hand guns. For more protection from other high caliber weapons, metal or ceramic plates are used. For additional protection ballistic helmet is also used. Earlier the military personnel used these types of vests but now the police or private security guards commonly use these protective gears. The protective levels of body armors vary throughout the world. However, three most common standards are of the US National Institute of Justice (NIJ), the UK Home Office and the Underwriter Laboratories (UL) that are used. These institutes use different ballistic resistant ratings systems that are based on type of weapons, ammunition types, fire distance, caliber and number of shots. The UL use Level 1 to Level 10 band showing guns and ammunition types ranging from 9mm (L1) to .50 caliber rifle (L10) while the NIJ system uses Level I to Level IV that is ranging from .22 long rifle to .30 armor piercing rounds.

j. Blast Suit

It is a heavy type of body armor that is designed to obstruct the impact of explosions or the bombs splinters or projectiles. This is heavier than ordinary body armor and it is designed to protect all parts of the body. This is normally used by the Explosive Ordnance Disposal (EOD) technicians or trained police officers of bomb disposal units.

2.3 SURVEILLANCE AND DETECTION TECHNOLOGIES

a. Closed-Circuit Television (CCTV)

These are television cameras used for surveillance and are often used in areas where many people come and go and security is required such as a big shopping plaza, banks, airports, casinos and so on. Today its use has become wide spread. In most of the countries in Western Europe and America, CCTVs cover most of the towns, shopping centres, parks, buses and train stations. Reports regarding their increased use reveal that they are very effective as a surveillance and deterrence devices.

b. Closed Circuit Digital Photography (CCDP)

The development of CCTV has now led to the emergence of CCDP; these are digital still cameras

with excellent images and are cost effective. The images are transformed to PC or laptop and can be downloaded very quickly and it can be maintained live as well. These cameras have excellent resolutions such as six million pixels. These are used effectively on the motorways and highways as a speed checking devices. In London, the traffic congestion charge is enforced by these cameras positioned at the boundaries of the congestion charges zones, which automatically read the registration plates of cars.

c. Bugs

It is another device that is a combination of a very small radio transmitter having a microphone and generally used in police investigations or other covert surveillance. Through bug a cordless phone can also be monitored. Bugs are now manufactured in various sizes. Professional bugs can fit into pens, brief cases and other items of daily use. Cell phones can be used as bugs as well.

d. Alarm Communication and Display Technology

This system transports alarm and assessment information to central unit and displays the information to a human operator. Variety of means are used to transmit the signals like wireless, cable and optic fiber. The AC& D technology is used for high value asset protection or at some other premises

security.

e. Sousveillance

It is an imitation of surveillance and mostly wearable wireless webcam used in this technique. It primarily aims at recording of an activity from the perspective of a participant in the activity. One of its mostly used forms is the body camera. It is video recording system that is used by the police to record their interaction with the public and collect video evidence especially during the crowd control or crime scenes. This new method is appreciated because it increases public assurance, reduce fear of crime, increase guilty pleas, resolve complaints about police behavior and reduce assault on the police officers. The body cameras are placed on front of the shirts. The body worn videos were first used by Danish police followed by UK police in 2005. Currently forty thousands UK police are using body cameras.

f. Global Positioning System (GPS)

It is a satellite navigation system which transmits precise signals by radio to the receivers which in turn determine the exact location anywhere on earth. It is an important gadget for crime mapping as well. A tracking device is fitted inside the car and stolen cars are relocated with the help of this system. This technology has further given birth to Geo Tagging

which means attaching geographical identification to various media like video, photo, cellphone, latitude and longitude coordinates. It helps in finding the location of the offenders or suspects.

g. Canine Units

Dogs have been used effectively by the police departments for detection for many years. The organized use of dogs date backs to 1889 when Belgium established a law enforcement training program for dogs. By around 1910, dogs were used by law enforcement agencies in England and Germany. In 1956 Baltimore police department start using dogs. Police departments typically use the hunting and working groups of dogs.

h. Entry and Access Control

Entry control means the physical equipment used to control the movement of people or material into a particular place while access control refers to process of managing databases or other records and establishing standards for authorized entry. Variety of methods like Personal Identification Number (PIN), photo ID, stored ID, exchange badges, card key, proximity badge or biometrics are used in the access control. For contraband detection metal detectors, explosive detectors, X-Rays scanners, backscatter X-Rays scanners and computed tomography scanners

are used. Entry and access control systems are used for protection of high security zones; the system is manned by the police or private security guards.

i. Delay Barriers

These are different kinds of protective gadgets that are used for physical assets protection and are intended to exclude unauthorized personnel or vehicles from a premises. These include: barbed wire, concertina raze wire, fences, gates, vehicles arresters, bollards, reinforced planters, Hesco bags and Jersey barriers. The delay barriers are manned either by the police or private security personnel.

The Department of State (DOS) has quantified the ability of the barriers to stop vehicle from entering into perimeter. These ratings are used to establish a level of protection. This system is called “K” ratings where the K refers to the term kinetic. Detail of the K rating is given below:

K-4 barrier will stop a 15,000 pounds vehicle traveling at 30MPH

K-8 barrier will stop a 15,000 pounds vehicle traveling at 40MPH

K-12 barrier will stop a 15,000 pounds vehicle traveling at 50MPH

2.4 IDENTIFICATION AND FORENSIC TECHNOLOGIES

a. Photography

San Francisco is the site of one of the earliest uses of systematic photography for criminal identification dates back to 1854. Now a days camera has become essential item of police investigation toolkit.

b. Biometrics

Chicago is the first U.S. city that adopted the Bertillon system of Identification in 1888. Alphonse Bertillon, a French criminologist, applied techniques of human body measurement used in anthropological classification to the identification of criminals. His system remains in vogue in North America and Europe until it is replaced at the turn of the century by the fingerprint method of identification. In 1910, Edmund Locard established the first police crime laboratory in Lyon, France.

c. Fingerprinting

It is an impression of the ridges of fingers made by ink. It is believed to provide evidence of a person suspicious of crime. Ever since, finger printing have been examined; every person has got

different fingerprint from the other. Moreover, the pattern of finger prints remain unchanged from birth to death. There are nine main finger print patterns. Other details of finger print science is based on Minutiae points which are used by finger print experts in inter comparisons and identification. Sir Edward Richard Henry of Scotland Yard police, Khan Bahadur Aziz ul Haq and Hem Chandra Bose of Indian police first established fingerprints classification system called Henry Classification System in 1901 and all subsequent classifications system are extension of that system.

d. Deoxyribonucleic Acid (DNA)

In common phraseology DNA is the molecule of hereditary responsible for the genetic characteristics in human beings. These characteristics ranges from hair colour to diseases susceptibility. DNA is inherited from both parents. DNA has gained a pivotal role in crime investigation when any of pieces of hair, blood, semen or recovered from the crime scene, especially in rape cases. In 1984, Alec Jeffrey at the University of Leicester developed profiling. In 1996, the US National Academy of Sciences announced that there is no longer any reason to question the reliability of DNA evidence.

e. Polygraph (Lie Detector)

It is a gadget which identifies physical reaction to some attributed emotional stimuli. The instrument is capable of recording blood pressure, pulse rate, respiratory changes and skin resistances during suspects' interview or interrogation. John A Larson and Leonard Keeler of California invented this apparatus in 1926. This is now also used in background investigation or workplace investigations.

f. AFIS (Automated Fingerprint Identification System)

It is a process of automatically matching the unknown finger prints against a database of known finger prints. This system was devised in early 1960s by the FBI, UK Home Office, Paris police and Japanese national police. It replaced the labor intensive process of classifying, searching and matching ten prints cards used for identification maintained under the Henry classification system.

g. IBIS (Integrated Ballistic Identification System)

It is a stored database of ballistics which assists in tracking of gun specific information and connecting a particular weapon to multiple crimes

that may have taken place in different geographic locations. The IBIS uses electronic and optical technology that digitally compares the gun caliber, rifling specifications and date of crime. A list of possible matches are produced and the firearm examiner then compares the possible matches with actual evidence on microscope for final determination. The IBIS is widely used by law enforcement agencies in over fifty countries of the world. Forensic Technology Inc. Montreal, Canada developed the IBIS in 1990. This system was adopted by Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) in 1993. Later on, the ATF and the FBI agreed to design a combined network called National Integrated Ballistics Information Network (NIBIN) in 1997.

2.5 ORGANIZATION AND ADMINISTRATIVE TECHNOLOGIES

a. Control Centre

It is a room controlling the operations where a facility or service can be monitored and supervised such as TV transmissions, flight control, public disorder, fire and any other major police operations. Modern control centers are connected to the CCTV systems, Internet, wireless systems, fax machines, telephones, GPS, satellite phones and alarm and display systems. These are the main hubs of activities

during disaster or crises management.

b. HR Software

These soft wares are meant for the management of the human resources in police organizations. These are used for pay rolls, attendance, leave, training, health, safety, and pension purposes.

c. Office Software

These ordinary soft wares are generally used for the word processing, spreadsheets, presentations or other statistical purposes.

d. CompStat

It is abbreviation of complaint statistics. A performance management system that is used to reduce crime and other police department goals. It emphasis information sharing, responsibility, accountability and improving effectiveness. It includes the following four generally recognized core components. (PERF: 2013)

1. Timely and accurate information or intelligence
2. Rapid deployment of resources
3. Effective tactics

4. Relentless follow-up

It was started by New York Police Department as an accountability process and later on it was implemented in many other police departments. CompStat is viewed as an innovative approach to crime reduction, improving quality of life, personnel and resource management whereby police senior officers hold meetings with local police station level officers to solve crime problems with the use of GIS.

2.6 COMMUNICATION TECHNOLOGY

This form of technology includes telegraph, telephone, two-way radios, pagers, cell phones, fax machines and alarm systems. The use of telegraph by police and fire departments first started in 1877 and it was regarded as a giant stride in communication technology. These days this is no longer in use. Telephone came in 1878 and it was widely integrated in police organizations not before 1923. Within two years telephone was followed by the two-way radio in 1934 by Boston police. In alarm system, a sensor is connected which in turn connects to a means to announce the alarm, eliciting response. The alarm system may serve a number of functions, varying from small self contained noise makers to complicated multi zoned digital system. This technology has also played a significant role in detecting crime.

These days cell phones are widely used in Policing. However, there are varieties of views regarding the use of cell phone during duty. Some officers believe that two-ways radio is not the best option for direct communication. On the other hand, some police departments do not encourage the use of cell phones for police communication. The New York Police Department has issued an internal order to remind officers from the smartphone generation that it is important to use the police radio rather than their personal or department-issued cell phones to communicate with their fellow officers. A cell phone does not provide an electronic record the way the radio does. (www.nydailynews.com 27.09.2013)

2.7 INFORMATION TECHNOLOGY

a. Computers

The New Orleans police department first tried the use of computers. They installed an electronic data processing machine in 1955; it was not a computer but rather a vacuum-tube operated calculator having a punch-card sorter and collator. Through this machine warrants and arrests were summarized. However, the actual computerization in the US police departments began in 1970s. The inter connection of all police computers except in Hawaii became operational in 1966 and one year after the FBI inaugurated National Crime Information Centre. It is

a computerized system dealing with stolen vehicles, weapons, wanted persons and other items of value. Now a days police departments, world wide, have computers in police offices, police stations and vehicles.

b. Expert Systems

It is a computer program that contains some of the subject-specific knowledge of one or more human experts. The most common form of expert systems is a program made up of a set of rules that analyze information (usually supplied by the user of the system) about a specific class of problems as well as providing analysis of the problem(s), and, depending upon their design, recommend a course of user action in order to implement corrections. Different expert systems are used like crime analysis pattern, incidence management, case management, offenders and suspect profiling.

c. Databases

It is a record that is collected through a central data base. A brief description is given which is known as schema which describes the object presented in the data base. The data base refers to the accumulation of records. For any ambiguity, the data base carries various meanings. The properties and design of database systems are included in the study of

information science. This system has revolutionized police work and now different data base are connected with mobile data terminals.

d. Mobile Data Terminal (MDT)

This device is used in taxis, courier vehicles, commercial trucking fleets, military logistics, fishing fleets, warehouse inventory control, emergency and police vehicles to communicate with a central dispatch office. MDTs have screens on which information is viewed. It has also keyboard or keypad to enter data. This can also be connected to other devices such as two-way radios.

e. Computer-Assisted Dispatch (CAD)

It is a dispatching technique for field service practitioners or other emergencies services assisted by computer. It either stores or retrieves data or sends messages. It undoubtedly increases efficiency and improves accuracy. This system either uses one or more servers to communicate with the terminals that are installed in remote vehicles. CAD accelerates the pace of information received or transmitted from the dispatchers to dipatchees. Whatever piece of information is transferred or received is normally stored in a central server. CAD is used for multi purposes used in the radio logs, calls statistical analysis.

Chapter 3

POLICE USE OF TECHNOLOGY: A CRITIQUE

In the inventory of police technology, as mentioned in the previous chapter, the police are not in love with all forms of technology as Chan (2005:674) points out ' [o]fficers are more enthusiastic about technologies that advance traditional law enforcement objectives of arrest and conviction.' But unlike the conventional law enforcement technologies, information and communication technology (ICT) is viewed differently by the police officers as 'intruder' and 'foreign body' in police work as validated by Marcoulide *et al* (1995): 'high level of technophobia have been found in population as diverse as college students and law enforcement officers.' This fear of ICT is the sub-merged in police culture.

This submersion has been graphically delineated by Manning (2003:147) who describes how technology is received and adopted in police organization. He maintains that technology has four hidden meanings in police culture. As a first step, there is an emphasis on organizational control; various methods are adopted to stabilize old uses; and

to augment the importance of status quo the old contents are placed in the new formats. Manning (2003) further elucidates this phenomenon with the following examples.

Computer Assisted Dispatch (CAD) in the British and American police forces assigned sergeants with the role of dispatchers and thus making assignments to officers face-to-face and by two way radio and computer. This method did not prove very effective because a traditional vertical flow of command was generated which was meant to be heard by a junior officer as if it were an order from the police chief. Besides, in the police department record keeping is still employed in old formats which lacks precise information or action taken. There is no guideline about action undertaken on the spot or how much valid are the initial classification of the tasks undertaken by the dispatcher or the operator.

It is true that electronic transmission of files and documents undoubtedly speed up the processes, but it does not improve the quality or contents of a document. The police forces have still retained the traditional vertical flow of command where no recourse is made to electronic means of communication. They are more comfortable with the military style of face-to-face mode of communication and meetings.

Secondly, the police force redefine the meaning of communication and information technology according to their own convenience. They never put forward demand for the provision of ICT and once provided, they deem it a superimposition on their freedom and discretion. They try to disarm, destroy or steal it to maintain communication status quo. For instance Manning (1992:337) reports a number of situational events regarding police force aversion to ICT where a chief of a suburban Texas town refused to have a computer in his office, and he insisted that he wanted all reports to be sent to him in hard copy and not by e-mails and the reports in hard copy should not be more than two pages. The police chief feels that computer and ICT curtailed his powers, therefore, he tries to distance himself from it.

While referring to another techophobic aspect of police work, Manning (2003) states that an Automobile Vehicle Locator (AVL) system was adopted in a vehicles in St. Louis, Missouri to give information about a sector quadrant location for any police car so equipped with the same device. However, despite the AVL, police cars would get 'lost' and could not be relocated. The perturbed dispatchers would make frantic radio calls to locate and establish the car's position and a car's geographic location had to be re entered on the grid if lost. To solve the mystery, number of officers were interviewed to unveil the unseen dynamics of this recurrent pattern of lost

patrol cars. Officers mockingly named the AVL as 'big brother' and an imposed surveillance device. They determined to put an end to this new phenomenon so the police officers discovered that once the engine is switched off the car signal would disappear at the control room. The patrol car is lost and could not be relocated until they themselves not reported their current position.

Manning (op cit) refers to the same mind set in police organizations, leading to direct machine destruction, mal function of lap tops, deliberate turning off radios or leaving them on other channels and the tactful dismantling of in-car video cameras to mention but a few.

Moreover, before the advent fixed speed cameras, radar guns were issued to police to check the speeders. But it was observed that the officers of the Michigan police department who wanted to shirk duty during the night shift would park their police cars in the parking lot facing out and keeping the radar gun on and on the appearance of the sergeant car the beep of the radar gun would alert the officers on duty and would resume the routine patrolling without being caught sleeping.

Dupont (1999) argues that contrary to the public expectations for an efficient police performance, after the advent of modern

communication technology, the police bureaucracies seem less interested in quality service and were more interested in the number of calls received per hour and the number of jobs a police car could attend per shift.

Allison (2004) puts forth that the merging of manual and electronic would have been very slow in the realms of law enforcement agencies. The agencies are more inclined towards the manual processes. Electronic processes require accuracy and precision; therefore, they apprehend that these changes will have serious implications if left ambiguous. As a result, they feel more comfortable with the manual processes in police work.

Thirdly, traditional rules of business remain unaltered having the same uses and activities and surface change emerges. Manning (1992) substantiates this reality with these examples: In the mid 70s, Mobile Digital Terminal (MDT) were introduced in the American police. This technology has not changed the underlying code of police work because they are still reactive whereas the technology under discussion demands a system based on information brokering and proactive response. The police force still focuses on traditional law enforcement, and do not observe a major departure from the historical response when the police would approach the suspected violation with preconceived

notions.

ICT has expedited only the delivery processes, however, the basic contents and underlying code, rules and principle of a message and its contents are still the same. In other words, modern technology is only a delivery efficient execution system.

Ackroyd (1992) contends that when personal radios were introduced in police departments they also led to the developments of police control rooms and in reality they should have supplement each other but the ground realities are contrary to it. Personal radios and control rooms are reduced to passing routine messages rather than directing and enhancing police activities in any strategic sense.

And lastly, police organizations modify the social field for their own convenience: a budge in the roles takes place and a new ideology of use emerges. Manning (op cit) further contends that members of the police organization may by pass the technology yet assert their status. For instance, the chief of Texas police department refused to buy, posses or learn computers, at his disposal, for reviving departmental information; nevertheless, he would arrive in the cramped deputy chief's office to gossip and ask his subordinates to show him the computer generated reports. Manning (op cit) further highlights that the police chief issued directives that no emails will be

sent to him directly. Research suggests that patrol officers normally aim at controlling their output more than increasing it. As a result, they convert their saved time in the usual routine reactive patrol and call service response.

As mentioned earlier, three imperatives have ushered in an era of the police *technification* and interestingly it is the political elites rather than the police themselves who have given impetus for the introduction of police technology in police organizations. Political elites are more eager to make police accountable. Moreover, the police technification has also been spurred by the wave of the new public management (NPM) in the early 80s. According to Brunetto and Wharton, (2005) NPM borrowed business strategies of planning, budgeting, risk management and techniques of accountability from private sector organizations and ICT was considered as the cornerstone of NPM. And after its introduction in the police department, the concepts of 'effectiveness', 'efficiency', 'input/output ratios' have been applied to police work with a broad brush.



Chapter 4

EXPLORING CAUSES OF POLICE TECHNOPHOBIA

This chapter attempts to explore the causes of police technophobia. It investigates this phenomenon from five various perspectives. Firstly, to what extent the cop culture has an aversion to learning new skills and information sharing? Secondly, does technology lead to the erosion of discretion and the idea of 'real police work'? Thirdly, has technology enhanced organizational accountability? Fourthly, has technology accelerated the process of civilianization of police work? And lastly, has technology introduced new hierarchies, key performance indicators and altered job structures? This analysis is global in nature as the police research of almost all models of policing across Europe, North America and Australia has been incorporated in this work.

4.1 Cop culture has an aversion to learning new skills and information sharing

Before discussing the institutionalized aversion to new skills learning in police culture, it is appropriate to classify what police culture really

means. Chan (2005:339) defines police culture as: 'a routine police work which undercover a layer of informal occupational norms and values operating under the apparently rigid hierarchical structure of police organization'. However, Bowling and Foster (2002:1012) itemise key features of police culture in more detail as:

1. Sense of mission
2. Thirst for action
3. Cynicism and pessimism
4. Suspicion
5. Isolation and solidarity
6. Conservatism
7. Machismo
8. Racial prejudice
9. Pragmatism

These traits are not formed in vacuum but these are the by product of the occupational stressors in the daily police work which figure out the police working personality. These traits collectively chip in to the sustenance of technophobia but here I will focus only the specific stressors which have a more vital link with the aversion the learning new skills. Collins and Gibbs (2003) have enumerated these stressors as:

1. Lack of consultation and communication

2. Working long hours
3. Pressure to get results
4. Urgent requests preventing completion of planned work
5. Dead lines and time pressure
6. Working shifts
7. Working unpredictable hours
8. Recalled when off duty
9. Not enough scope for initiative

Loo (2004:156) adds the concept of 'burnout' to Bowling's exhaustive list. He defines it as a 'syndrome of emotional exhaustion'. These set of symptoms are not uncommon in those types of job which are concerned with the 'people work'.

Police culture has a functional utility for the survival of police officers in a profession which is highly risky, unpredictable and isolated. In this regards, Reiner (1992) mystify the nature of police culture and elevates its status to a 'religion.' He puts forth:

[It] is not like job but a way of life with a worthwhile purpose, at least in principle.....it is a sect; it is like a religion.

Having said that, police give more attention to field work and that is why they are not at ease at strict or sterile class rooms' environment. That is why Baley

and Bittner (1989) succinctly argue:

Police culture is averse to class rooms, training and academia as it believes that 'real police work' to be learnt on the streets.

Traditionally, the potential recruits who want to join police service have these assumptions that policing is all action and full of adventure and they get this realization from the media images so when they come across class rooms, new skill learning, computers and books they get bewildered. This aspect of police training has been substantiated by Fielding (1988):

Police culture plays a negative part in occupational learning, in that it is resistant to change and rejects book learning or problem solving approach in favour of traditional approach to policing and crime fighting.

The same phenomenon has been highlighted by Baley and Bittner (1989:87) in a slightly different fashion. They contend:

Common sense is the life blood of police culture... common sense is passed on by training officers as the craft of police work in which 'learning comes exclusively through experience intuitively processed by individual officer'.

Chan *et al* (2003:156) present the deplorable situation of police training in a global perspective. They convincingly argue:

The devaluation of the academy training [is] based partly on the harsher realities of their field experience [as] some probationers acknowledged that the view that 'everything you learnt at the academies is bullshit' was fostered at least in part by operational police.

This revulsion is further reinforced by the over emphasis of the musketry training. Guns colour the *leitmotif* of police culture: from police training to the police funerals. Bayley (1996:70) pithily describes this observable fact: 'In the USA, police officers go to work as if they were going to war.' However, this is not true about the British police but even then the desire for being armed is resonating time and again in the police debates.

The aversion to use of computers is equally common in both the street cops and management cops. However, the management cops try their best to mask it in excuses such as they do not find time for refresher courses or they are over worked, or such courses are so 'irrelevant', and so on. Manning (2001:93) testifies to this:

The [crime] maps are not used by command staff for strategic planning ...there is little infrastructure in place to encourage use of crime mapping and minimal training is done.

Another trait of the police culture is the lack of sharing information not only with other sister organizations but also with their own colleagues. This fact has been lamented in the Bichard Enquiry. Brodeur and Dupont, (2006:18) also point out this issue:

There is a significant body of literature on the reluctance of policing organizations to share information... After 9/11, this topic became the major theme of numerous official reports on the failings of intelligence community.

Moreover, the tug of information war between various wings within the police organization or between police and other law enforcement agencies has an interesting history. 'The post 9/11 competition between the FBI and the CIA to coordinate domestic intelligence activities is an example of this trend.' as mentioned by Brodeur (2006:21). He further enumerates the reasons for not sharing information:

Policing agencies and individual officers are notoriously loath to share information they collect. As information is associated with owing a particular

case, sharing such knowledge can dilute an officer's contribution to an investigation, increasing the likelihood that might monopolize the glory and attendant career perks that can accompany a 'good pinch' (ibid: 88)

It is true that the era of New Public Management (NPM) has accelerated the computerization of the police organizations but when it comes to information sharing with non- police organizations, police at individual and at group levels are extremely reluctant to accede to the legitimate demands for information brokering with other law enforcement agencies. However, in such scenario the police organizations act like a chameleon adapt to the new realities and demands of the NPM and acquire ICT but in the same ways as mentioned by Manning (2003) in the previous chapter as just a cosmetic change occurs. Chan (2005:659) quotes Manning in this regard:

No matter how sophisticated the computer system is, it can not make officers share information they want to keep to themselves...sharing of information is not a common practice among police officers, who normally keep information in their own case files, private note or log books if not inside their own heads.

On inception of serious organized crime agency (SOCA), Jan Berry, the chairperson of the police federation of England and Wales, displayed the collective anxiety of police culture not in unclear terms:

We are more likely to become overly competitive for information [between SOCA and local police forces] and not to share it'.

The author is also witness to this phenomenon when one officer *bequeaths* 'information' to his successor officer on eve of charge relinquishment and qualitatively speaking that 'information' signifies nothing.

However, this resistance to information sharing has been dug out in the Bichard Inquiry Report (2004:119) as well. This report proved to be the first technophobic mine field which exposed the fear of information sharing among the police officers on a national scale. Sir Bichard states that there is a dire need for recognition of a national intelligence IT capability but unfortunately there is a scanty progress in that direction. In other words when viewed at national level, one notices a bleak picture. There is no coordinated or concerted effort at national level among the police force. If one police force wants to gather information or intelligence about a particular individual from another police force, it does not get

easy access to pertinent information. Besides, it does not have IT-based methods of finding out any piece of desired information shared by various police officers.

To ameliorate the status of ICT in police training and practice, some efforts are under way in various countries of Europe and North America. In the UK, the inception of Police Information Technology Organization (PITO) is a case in the point. PITO works with the police forces to identify priorities specify requirements and manage the procurement processes. However, Sir Bichard (2004) has pointed to some teething troubles of PITO, as it has no power to impose solutions on police forces. Moreover, due to budgetary constraints of different police forces, there is a reluctance to reach a common acceptance of information and communication technology solutions.

4.2 Erosion of discretion and the idea of 'real police work'

Manning (1992) has presented the parameters of police decision-making processes. Police work is primarily event based, but on the other hand, ICT demands an organic approach to problem solving. Information is received and interpreted in different fashion in police organizations. In police work, events are sporadic and uncertain and even if police predict that hundred robberies would take place in a given

city in a given year but even then the correct time, place, perpetrators, total number of losses, victimization intensity and political repercussions can not be ascertained beforehand. So the police are prone to take into account the situational factors of the particular events rather than sticking to a set of rules and regulations. Moreover, police decisions are significant for those individuals who are the subjects of the decision. Police decisions are also difficult because police officers screen people and events for processing to arrive at a conclusion and to decide whether or not to proceed further. Police decisions are also marked by heterogeneity and complexity and in real situation if the option is provided to act; then this choice is followed by another big question in the police decision making process: how to act?

It appears that the advent of ICT has considerably improved the quality of police decision-making process but in reality even now the nature of the decision making, information gathering techniques and the traditional vertical flow of information are still the same. This attitude exists because of the inherent uncertainty in police decision making processes as these decisions are based on judgements and common sense reasoning. Manning (1992:358) comments on this:

The core technology of police...not easily altered... the mode of decision-making that

determines what information available to other officers. 'Street decisions' are the source of most of the information that the organization knows and in some cases in official files and data banks.

Hough (1980) has pointed to this issue almost more than three decades ago but his findings have a considerable relevance to present ICT fiasco in police organizations. He maintains that ICT has been imported from those organizations where it has achieved great success like business, military and fire service but it miserably failed in the police. Hough (1980:351) enumerates the causes of this failure:

[I]nsufficient account has been taken of the complexity and texture of police objectives-the concepts of productivity, effectiveness, efficiency, input/output ratios can be applied to organizations with clear and simple objectives. For a technology to be successfully applied, it must be possible to make a clear distinction between questions of fact and question of value....The institutional nature of the police, and the extent to which police is interlocked with other institutions limit the value of describing the police as a purposive and objective-seeking organization.

The other part of the question is concerned with the police most cherished dream of going back to the era of doing *the real police work* and enjoying the

autonomy of action. The phrase 'crime fighting' is a recurrent theme in police training and police culture and in this phrase more emphasis lies on the 'fighting' aspects of police work rather than the 'crime': the police want to fight. Kleing (1996:11) pithily puts it: 'Police are *preoccupied* with peace keeping- but preoccupied [emphasis added] with crime fighting.' Crank (1998:117-118) further elaborates the concept of real police work. He states that it the 'sudden blast of the unpredictable' which is accompanied by cops' 'adrenaline surge in anticipation of chase, danger and confrontation.' Bittner (1970) puts this notion in a different way:

[It is] the huff and the puff of the chase' that merges rookie fantasies with daily activity, the sudden call for a crime in progress, the chase of a felon ...real police work engages the vital self, invokes warrior dream to make a difference in the battle against crime...[this]work gives the police a sense of self worth absent in the give-and-take of normal everyday routines.

It is evident from the above description that three things construct the idea of *real police work*: danger, discretion and authority and any encroachment upon these components is construed as an attack on the cops' domain and these attempts are overtly and covertly aborted by the police culture. Crank (1998:43) further expounds the various

dimensions of this police *domain*:

Bestowed with specific beat assignments, working alone, and provided with a portion of automobile-enhanced discretion, they act out their subjective, shared sense of morality every time they decide whether, how and when to intervene in the affairs of the citizenry. They are granted moral dimension over a turf and they act...as sovereigns. That which interferes with their sovereignty stokes the fire of culture, be in the brass, the press, department policy, the court, university educators or the public.

And, the outcome of the lethal combination of danger and authority comes into full play and it upsets, as Skolnick (2005) points out, the procedural steadiness of the police force; the methodological requirements take on a 'frilly' character or at least tend to be reduced to a secondary position in the face of circumstances seen as threatening to their *domain*.

Research shows that police officers typically go for the assignments in a police career which are about the real police work and officers' capabilities are also judged on the duration of the tenure on *field* postings: they are graded as excellent officers if they manage to remain for long on the field posts. The *field officers* rule supreme in police culture and the 'office guys' are considered as effeminate as Skolnick

(2005:266) has researched:

Responding to question about which assignment they would like most to have in police department ,50 percent selected the job of the detective, an assignment combining elements of apparent danger and initiative... patrol and traffic 37% and only 4 % selected administrative work.

Furthermore, the idea of real police work also frustrates the attempts to introduce special units in police as these special units always embark upon the 'off the shelf ways of crime fighting'. This resentment is obvious in the statement of the police federation of England and Wales about the inception of Serious Organized Crime Agency (SOCA). Gracia (2005:65) describes the past and future of the special units in police organizations:

Police organizations have historically established special units to deal with special crimes and special groups of people...however, [these] units do not carry equal value within the police organizations in part because they are not constituted with the police values of what crime fighting is.

Apart from the advent of special units, detectives have also developed a more conspicuous aversion to the use technology, especially ICT and they attempt to abort all experimentation or

improvements in the crime prevention techniques. Bayley (1996:57) illustrates:

Because of the special status of the criminal investigation, detectives develop a powerful interest in the status quo. They tend to resist attempts to reshape the mission of the police, especially if involves evaluating the importance of patrol work or searching for new ways of preventing crime.

In sum, the advent of computer and ICT has sent ruffles in police culture as computer poses to be an antithesis of the idea of real police work. Ericson and Haggerty (1997:407) illustrate this apprehension:

Computerization of occurrence reporting turned patrol officers into data clerks...patrol officers collective sentiments was expressed by one officer as 'we shouldn't be doing what some girl should be doing.

The most common problem is that even the senior police managers are interested in doing the 'real police work' and they feel so elated when they come down to the level of a constable in such occasions of danger and stress. This fact is also substantiated by Olisa (2005:136) in his PhD thesis:

The desire to remain hands-on and to judge one's success as a senior manager by the ability to do

police work rather than manage it is probably a product of some of the components of cop culture, such as mission and action.

Olisa (2005:137) further explains that it does not matter to the senior officers that instead of managing resources they come down to the level of a constable; they do so because they want demonstrate their ability to the people under their command how that effective they are in *operational* police work on the ground.

Graef (1989:464) has graphically described the senior police managers' desire for huff and puff of practical police work where a junior officer describes his senior officer in such a manner:

'Our Superintendent Ops [operation] is good. He's keen. He's still got his feet on the ground .He hasn't lost it-he's still a PC. He will come out walking with you, not to catch you out but because he is interested, because he wants to walk around and meet people. I am sure if something happened he would leg after them and arrest them. I'd have to do his paper work; but he would get involved.'

Hough (1980:354) seeks to explain that when the American police officers were enquired about that how they patrol the area and they did not talk about their 'specific level of surveillance' but they informed

about 'their strategies for maintaining their authority.' It has become clear from the above discussion that the police are primarily concerned about their exercise of power and technology cannot curtail their discretion completely.

4.3 Technology and enhanced organizational accountability

Police work under a microscope. Public is more worried about the police performance than any other government department. Politicians always capitalize on controlling crime and making police more efficient and accountable. The desire of the political elites for police accountability has been expressed in a variety of ways. However, in some places this desire is expressed deviously while in other places, crudely and openly. Various ways and means have been devised for improving police accountability procedures. Hartfield (2006:750) identifies these accountability mechanisms:

[Police]accountability comes in several forms; political accountability to Government and the representatives of the wider community; professional accountability through complaints mechanisms; individual accountability to the obligation of office; performance accountability to the law. And all of these are influenced by attitudes to accountability *inherent* [emphasis added] in organization cultures.

But the above mechanisms have become a monster for police when armed with the ICT and, moreover, the new public management has made things harder for police when the business approaches of input and output ratios of efficiency were applied to police work. This new mechanism also warranted the process of new parameters for accountability. However, Marx and Corbett (1991:402) define different purposes for the introduction of information and communication technology, as an accountability mechanism, in police organizations. To them it is: 'to quench the hierarchical thirst [of departmental and non-departmental] for more control over the lower ranks of police organizations.'

But the police are aware of this desire of the political elites and of the 'office cops.' Police have always demonstrated a suspicion for new technologies and especially of the ICT. Their main apprehension has been based on the assumption that ICT is acting like a 'big brother' and technology shape all their decisions which has made them prone to unnecessary accountability by non-police governmental organizations and their supervisory police officers. Therefore, they accept ICT but do not integrate it in their set-up as directed by the concerned organizations or bodies. This is why Chan (2005:662) points out:

Police were suspicious of the system that monitors their decision and fearful that information technology may be used for punishment. They were concerned that technology-generated performance indicators may be misused by management. They particularly resented demands for accountability from external agencies.

She further argues:

Information technology has led to closer scrutiny of police work by supervisors and made supervisors more aware of the day-to-day activities and work load officers under their command. This increased awareness of work activities by supervisor was perceived most frequently by detectives who traditionally enjoyed a great degree of autonomy and freedom in their daily activities (ibid ,661)

Both at organizational and individual level, police want to assert their role as law enforcing body and are thus intolerant to any check or accountability whether undertaken by their own boss (es) or some external body they always rationalize their *modus operandi*, which may not follow a uniform pattern. Ericson and Haggerty (1997:414) aptly describe how police officers abort the system of accountability by confounding the bosses who breathe over their subordinates' necks:

'I guess it is not like any other job. You don't like your boss looking over your shoulders....police officers are a resourceful bunch. A little bit of graphite into the key board ...will completely shut down this terminal.'

The police organizations, every where in the world, go through a severe mental stress which leads to other psychological ailments. However, the ratio and percentage of this stress may vary from culture to culture and also from street cops to managements cops. Nevertheless, this issue is still debatable whether the field or office work is more stressful. General observations reveal that the former is more traumatic as substantiated by the findings of Collins and Gibbs (2003:257):

For police force, 26% of medical retirement is done due to psychological ill-health...[and] an interesting and perhaps surprising finding with in the US data is that it is not occupational aspects, such as the risk of violence or exposure to traumatic events, which are perceived as most stressful-but rather, organizational issues, such as managerial [accountability] structure and climate.

Chan (2005) informs that police officers complain that they spend more time in completing the accountability formalities and this stops them from spending more time on the streets. Officers also

showed disapproval of ICT as it primarily used as a surveillance mechanism by supervisors.

The management cop uses the ICT as a scare crow for the street cops and to them the best possible use of this technology to put the subordinates under the microscope. Ianni, and Ianni (2005:301) points out:

[The] management cop culture seeks to maximise those bureaucratic benefits that come from efficient organization, rational decision making ,cost-effective procedures and objective accountability at all levels of policing.

They further contend:

The street cop culture sees local response and flexibility as more important pre planned and 'packaged' solutions to problems that may or may not ever come up in the day-to-day work of policing. (ibid: 302)....They fight back in the only way that they have at their disposal: foot dragging absenteeism, and a host of similar coping mechanisms and self-defending techniques. (ibid: 311)

Manning (2003) concludes that the ICT has created a data-saturated scenario for the police officer and it is now more difficult to prioritise, manage and maintain and, consequently, technology does not

allow its users to cover their mistakes or to ignore some of their errors in the practical police work.

But this accountability is double edge weapon: if one part of the hierarchy of the organization gets monitored by some internal component, the later is also watched by another watchdog. Thus all are under the magnifying glass. Ericson and Haggerty (1997:396) refer to this omnipresence of accountability process:

The communication system of police organization monitors officers' movements in other ways. In many police organizations all telephones and radio conversations are recorded... no one escape the supervisory formats of the communication technologies. The supervisors themselves are supervised.

But despite all this, surveillance and monitoring techniques are tailored by them for their own convenience. Young (1991) informs that the police manipulate crime statistics to present themselves in a positive image. Holdaway (1983) also establishes that manipulation of figures has a comprehensive history in police culture.

To sum up, all the four types of police accountability mechanisms i.e. political, professional, individual and performance have been

improved after the arrival of ICT in daily police work and it has made cop's life difficult. But all these mechanism are severely swayed by mind-sets of organizational cultures.

4.4 Technology and the Civilianization of Police Work

The simplest answer to this question is superficially in positive although, in reality, the police do their utmost to de-civilianize themselves and create an aura of mystery regarding the nature of police work; the police try to present their work as an art or craft. They apprehend that if they got more civilianized, it would shatter their dream of achieving a professional image for themselves like that of the barristers and doctors. Obsessed with the feeling to look different from the rest of the society, Crank (1998:13) refers to two pregnant sentences of police wisdom: *'It's a cop thing. You won't understand it'*. Crank informs that this message was written on the T-shirt of Las Vegas police. And, Crank asks two questions: what is a cop thing? Are civilians really unable to understand it? This message is loaded with meaning that the police search for gaining the professional image. But this desire has already met its fate after the large scale civilianization of police work. Police may try to dissociate themselves from the civilians working in police force, but the process has already started, and the above mentioned message is

merely a nostalgic slogan. Forst (2000:23) refers to the process of police civilianization:

[It] refers to a law enforcement agency's hiring of non sworn personnel to replace or augment its corps of sworn officers, typically with the aims of reducing costs and improving service. Civilians are employed as communication specialists, criminalists (crime scene technicians, forensic science laboratory scientists) computer specialists and a host of other support positions.

Cunningham and Meter (1991:3) and Loveday (1993:5) diagnose the civilian composition of the US and the UK police services. These researchers highlight the ratio of sworn officers, civilians and security officers within police organizations. For instance in the USA, in 1965, there were 8.3 sworn officers per civilian whereas the percentages of security officer per sworn officer were 0.9. Generally, when the quotient of the former decreased, the latter increased. In 1975, the percentage of the sworn officer per civilian dropped to 5.0, but contrary to it, the security officer per sworn officer increased to 1.9. This trend continued and thus in 1985, the share stood at 3.9 and 2.4 and in 1995 the sworn officer per civilian further dropped to 2.6 where as its counterpart rose to 2.7.

In the similar vein, the proportion of civilians

in police forces of England and Wales from 1982 to 1992 indicates a gradual increase. For instance the number of civilians during 1982 was 1838 and this figure remained almost the same till 1985. In 1986 the figure rose to 2027 and then each successive year there is a gradual increase . When we come to the 1992 we notice an increase of more than a thousand where the figure stands at 2934.

Now the question is: has information technology really accelerated the momentum of civilianization? Civilianization of policing is a broad category which includes variety of civilians working in different capacities in police forces but from the above statistics it is clear that more civilian are joining in different capacities which has obviously something to do with computers. And the figure rises up as the computerization of the force takes place. The previous civilianization process of the early 80s was not considered as a formidable threat to the sworn officers as those civilian mainly joined as security guards or supporting staff but the new brand of civilians are armed with computers and this poses a serious warning to police culture and hierarchy.

It is only the advent of ICT which has led to the redefined policing as 'information brokering service' and now it has brought the sword of Damocles over the heads of police centuries old desire of attaining 'professionalism' and perhaps, in England

and Wales, this fear has been intensified after the birth of the Serious Organized Crime Agency (SOCA). This new agency is feared primarily because of *technocrato-phobia* (sic) as now it is acknowledged that the future 'crime analysis [crime fighting] will frequently be office-based and computer driven, which is the antithesis of action oriented police work' as Cope(2005:357) assumes. She further quotes Kelly (1990) to authenticate her argument:

Analysts and investigators... inhabit positions... which breed friction... the intelligence analyst is situated in an information processing... unit, while street investigator is working with... other that may not able to see the forest for the trees.'

But civilians and the sworn police officers are not easy bed fellows. Cope (2004:196) narrates the plight of the civilians working in police organizations. She maintains.

Despite their various experiences and backgrounds, all the analysts had confronted the similar struggles for acceptance and recognition within the police culture.

She further proposes that the crime analysts are a frustrated lot as sworn police officers take every thing they produce with the pinch of the salt. The analysts complain that they are only producing

recommendations.

The issue of non- acceptance or slow acceptance of the civilians in the police is directly related to police *technocrato-phobia* (sic) which has a vital relation to police technophobia. The police are aware that it is primarily the ICT which have paved the way for these civilians to come to the police force. Cope (op cit) explores the disquiet of a civilian crime analysts working in a police organization.

'When I started, they obviously thought I was a secretary and it took a long time for them to realize that I really was not. We were given a rank [and] how we would fit into the police culture, which was [equivalent to] either a DS or DI, some of them clued up thought that we were like inspectors level but PCs just could not believe in a million years that we were.' (ibid: 198)

The friction between sworn officers and civilian officers aggravates when the sworn officers are given the realization that the civilians' work is more appreciated by the society. However, police cultures have all paraphernalia that can possibly give a hard time to the civilians in police organizations. Cunningham and Meter (1997:47) comments on this:

Sworn police officers are bound to resent the placement of civilians in positions that are perceived

to compromise sensitive information, interfere in sworn officer's exercise of discretion, and disrupt operations.

The police may take pride in certain things and demand laurels for the admirable achievements, but when the civilian crime analysts come up with their piercing analytical statements and reduce their achievements to zero level or some time put blame on the police strategy, then the clash between the two begin. Chan (2005:667) maintains:

There appears to be a clash of cultures between police and analysts. Among operational police there is a general mistrust of information retrieved from a computer system, as well as a cultural aversion to depersonalized and de-contextualized data generated by crime analysts.

These problems are deeply associated with the ideas of 'de-personalized' and 'de-contextualized' generated data by the civilian crime analysts which the sworn officer has gathered after a lot of hard tough grind but a civilian crime analyst, sitting in an air conditioned room, with his/her hands on the computer key board, is unable to comprehend the real meaning and theme of the police generated data.

Another level of cultural clash persists with the civilian personnel who manage information

technologies in police departments. Both in the context of crime analysts and other civilian personnel, the police see a curtailment of their discretion which they always consider as their prerogatives. Loveday (1993:13) further elaborates this issue:

Information technologies departments are headed by chief superintendents, although they are managed by a civilian...under present arrangements police officers do not accept, and are not encouraged to accept directions from civilian personnel.

And, this tension has also been accepted by police upper echelon as well. Sir Ian Blair, the Metropolitan Police Commissioner commented on this issue on 16.11.2005 '*The contribution of non-police officers with in the police service is but misunderstood and curtailed.*' (guardian.co.uk)

This tension between sworn officers and civilian officers culminated to *adnausim* and the framers of SOCA came to the conclusion that it '*will have its own culture and its own identity*' as Hartfield (2006:756) informs. And now the policy makers are convinced that the future policing is *not* going to be done by the police.

4.5 New hierarchies and new job structures

The creation of Serious Organized Crime Agency (SOCA) has irked the police in Britain. The police federation of England and Wales has demanded that the SOCA must be staffed by the police officers. The federation has resented that 'police officers will lose their status and powers of constable. Instead, the director general of SOCA should be able to give out powers on an ad hoc basis to staff as and when required and then remove them in the same way.' (Jan Berry). It is true that under SOCA officers would no longer swear their allegiance to the crown, but would become employees of the SOCA as on operational level it has been designated as a non-departmental public body (NDPB).

The philosophy behind SOCA illustrates that traditional police has miserably failed to cope with crime or more precisely with organized crime. Fighting organized crime is based on the intelligence led policing model which has ICT at its heart for which police is technophobic. Are the causes of this failure not lying in the police culture? Hartfield (2006:754) holds: 'the vision of the Government has for SOCA of an independent body corporate with *its own culture and its own identity*.' Does it show Government's wariness with police culture?

The police fear of technology is not without

substance as technology has the immense capacity reshaping organizations as Manning (1992:330) illustrates the role of technology in organizational context:

Technologies create meanings, alter work routines, shape physical settings, and can change the balance of power within organizations. Technologies may alter the distribution of discretion by creating new uncertainties, amplifying some and suppressing still others. Uncertainties are associated with rituals and ceremonies that maintain or the *status quo ante*.

Manning's argument is further supported by Erickson and Haggerty (1997:388) who argue:

Communication technologies... radically alter the structure of police organization by leveling hierarchies, blurring traditional divisions of labour, disrupting supervisory capacities and limiting individual discretion. In the process the traditional rank structure of command and control are replaced by system surveillance mechanism for regulating police conduct.

Erickson and Haggerty (1997) further explain that after the arrival of ICT the clerical staff are now allocated new responsibilities which has provided them with additional administrative role and the other hand supervisors got some extra new type of

secretarial work load which is heaved upon them by the new system.

Information and communication technology has redefined the traditional pyramidal structure of police bureaucracies. It brought things to focal point for ready access and now the question of short and long distance is made redundant by video conferencing. That is why Beck (1992:218-19) claims:

The concentration of data and information is accompanied by the dismantling of hierarchically organized apparatus based on division of labour. The centralization of functions and information interpenetrates with de-bureaucratization... irrespective of distances, the middle level of bureaucratic organizations... are fused together in direct interaction via video display terminals made possible by information technology.

However, it does not imply that the introduction of ICT put an end to all the prevalent problems in an organizational set up. We are human beings; there will always be clash of interest. Thus the old gurus in every set up who thrived on seniority, loyalty and traditional professionalism now see their way blocked for further rising up due to the lack of technical skills. This clash of interest adversely affects the smooth functioning of an organization and

police force is certainly not an exception to this general rule. Erickson and Haggerty (1997:410) labour out this point:

Hierarchy and the division of labour are further complicated by the ascendant power of communication technology specialists. Status and influence are transformed from those who claim traditional distinctions such as length of service, loyalty, rank, and public service and onto those who demonstrate technical skills. Thus a deep division was created when a police organization started a new information system branch in the 1980s by hiring a team of civilian technical specialists and cancelling its recruitment of new police officers for one year.

Police bureaucracies are still based on the Max Weber's pyramidal structures and policing in most countries of the continental Europe and former British colonies is still adhering to the military style of governance and administration. However, in some countries, these bureaucracies have succumbed to the imperatives of the new public management and moved towards some restructurings. But this is not a smooth sailing as Olisa (2005:115) points out some bottlenecks in this transition:

Senior managers have had trouble due to their inability to adjust to the change from linear one-dimensional approach to managing their people to a

more complex participative, multi dimensional interaction with their staff.

On the other hand, the police gurus in the upper echelon maintain that any change in the rank or cadre structure would be followed by organizational hazards. They also complain that computer has brought a new generation of IT bureaucrats and somehow they find it difficult to adjust with this new scheme of things. The research conducted by the Institute for Crime Prevention at Helsinki (1987:2) highlights this issue:

The [is the] era of computer aristocracy... computers were made the centres around which highly regulated social systems were built for presumed reasons of efficiency. The computer specialists placed themselves in the role of professional ruling class. They did not bother to understand the social realities of their clients or even to share a similar language with them.

Put simply, the above discussion provides an ample amount of evidence that ICT has made the old hierarchies redundant and evolved new informal modes of communications but the police force still want to adhere to the centuries old vertical command and control mode of communications. ICT has played an instrumental role in altering job natures and thus made some ranks and post surplus.

Chapter 5

WHAT NEEDS TO BE DONE?

The Police have an institutionalized fear of technology. They conspicuously demonstrate this fear in their revulsion to information and communication technology (ICT). The police fear ICT because they believe that it requires an extra effort to learn which they can not afford because of their peculiar job nature. They also do not want to sit in the class rooms. They are also averse to it because ICT emphasizes the information sharing and they consider that information is power and they do not want to share it. It is also widely held in police culture that ICT has reduced their discretion and smashed the crime fighting image of the police. Cops think that now they are just forms filling clerics. Further, it has enhanced accountability mechanism and they feel that as if they are working under a microscope. They also allege that it has accelerated the process of civilianization of police work and it is primarily the computer which has brought civilians to the force and so it has paved the way for 'computer aristocracy' in the police organizations. Consequently, ICT has introduced new hierarchy and altered job structures of police forces.

After the major events terrorism since 9/11, policing came under the lime light and the world legislatures came up with the plethora of anti-terror bills and police reforms packages. Thousands of pounds and dollars are poured into the security industry with main emphasis on the technification of law enforcement. Bowling and Newburn (2006:1) hypothesis these new dimensions in policing:

Policing is changing radically... so significant these changes that it has been proposed by some leading commentators that the term policing should be replaced by the phrase governing security [and] four interrelated set of changes may be observed [in this process]: multilaterlization; transnationlization; securitization and militarization.

But on the other hand, it is widely believed that information technology has the capability to redefine the future policing as '*information brokering service*'. But it is evident from the arguments in the previous chapter that the police organizations are not going to subscribe to this idea as it poses a serious threat to police culture as a whole where policing will be further reduced to the platoons of 'forms filling machines' as Bowling (1992:344) points out. Jones and Newburn (2005:735-76) are the pioneers of this new role of policing. They contented:

The public police role is no longer primarily

concerned with law enforcement and peace keeping, but has moved towards 'information brokering' with in a wider patch work of organizations.

However, the public police are dogmatically averse to this *robotic* fashion of data producing and sharing policing style. Nogala (1995:205) explores:

Perhaps there are more policemen who see themselves as problem solvers rather than Robo-cops and part of the work force have little acceptance for changing procedures caused by the introduction of new technologies.

Since the full scale computerization of police work has been initiated in the UK and the US in early 80s, but all this proved to be mere a *technological drama* as Manning (op cit) infers. To him, ICT has not changed the same type of *ancient* traditional policing which is still reactive, clinical, incident based and highly personalized in nature. However, to give the devil his due, it is now a bit faster. But even in this apparent swiftness, there is sluggishness. Ericson and Haggerty (1997:410) provide evidence for the real nature of this velocity in daily police work:

No one person is a decision maker per se. A communication technology specialist made this point with reference to his previous employment as a police officer: a police officer on the street would never make

a decision. They investigate every thing, every possible thing, they investigate.... every thing has got to go to the next level, so it's mistrust any body to make a decision, so it just get recorded.

The future researchers would make some new inroads in police technophobia which would help in the demystification of police culture as a whole. I suggest that the antidote for cure of police technophobia lies in the organizational change which can be brought about by seven different ways: Firstly, the change can be accelerated through the creation of some new specialized agencies or task forces for specific limited purpose and defined missions and once these specialized units achieve the objectives then that should be disbanded and fresh task forces should be formed. This attempt would break the organizational age of the main police culture because older the organization the difficult it is to reform. Secondly, many police departments are re-employing the retired senior cops; this practice needs to be discontinued and police departments should be made free of dinosaurs: truly, some retired police officers are the IT gurus, exceptions are always there. Thirdly, proper accountability mechanism should be put in place that exclusively deals with the problems arise from communication failure or technophobia. The accountability units should gauge the level of acceptance and resistance of new technology in the police both at street level and senior level. Fourthly,

the ICT component in police training and other refresher courses should be further enhanced and the trainees should be made to use information technology in all their daily activities and fifthly, Laptops or other Personal Digital Assistants (PDA) should be made an integral part of the police uniform. Efforts should be made to innovate and promote new police icons where ICT gadgets should be given equal importance as batons, guns and handcuffs. Further, fresh avenues should be opened for civilians to join the police and the civilian staff should be provided equal opportunity to rise and shine. Lastly, two different approaches should be adapted to fight police technophobia amongst the street level cops and senior level police managers.



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