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Cyber Criminality & Its Legal Control: Fighting With Stones in Jet Age

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ABSTRACT

Cyber criminality has revealed the loopholes and shortcoming of national systems, exposed the inability of combating Trans border criminality and inability of the legal systems to deal with the cases involving virtual realities where paper based identities, physical location, national borders depicting jurisdictions melted out. The existing legal systems are mostly paper based and very much sensitive to the geographical maps where artificial boundaries create national jurisdiction, which is the only legitimate medium to take cognizance of crime. It is also very much sensitive to paper based identity, physical location, legal recognition of criminal act. The electronic technology has potential to crack the old age principles, which hardly stand in cyberspace.

The present article has focused upon the gap between the traditional ideologies to combat the crime and varied nature of cyber criminality. It clearly demonstrates the difference between Cyber crime and traditional crime. It highlighted the causes, nature, and difference of technology and ultimately demands the modern approach to deal with the crime. At the end, it also press upon the international policy, regulations and standards to deal with such trans-national criminality.

KEYWORDS

Cyber Crime	Legal approach	Genetic algorithm
Cyber criminality	Technology	

PREAMBLE

Cyber crime is one of the deadliest types of crime. It can disturb existing set-up within the fraction of seconds. This can be evident from the 9/11 incidence when two airplanes were crashed against twin towers of World Trade Centre in New York. Within a couple of minutes all the data within the server located at twins towers lost and the transactions corresponding with these computers, which were taking place, halted. More dangerous would be the situation when globalization provides the connectivity to any computer from any corner of the world. Thus, it may be possible that within the fraction of seconds, some of the server would collapse and the transactions pertaining to those servers may also come to halt. Thus the major threat appear today is due to the globalize nature of Computer & Information Technology which may spread its effect beyond the boundaries. Thus if anything would go wrong in China, it may effect in the business market of India. If any American Bank would become bankrupt either due to e-theft committed or due to hacking, the share market index of Bombay Stock Exchange may fall down!! Thus, Cyber criminality has potentiality to show its effect across the globe.

Therefore, the present article has focused its attention upon how Computer Technology helps to revolutionize the concept of Information Technology and how its globalised nature would have probable threat to the national legal systems. At the same time, the investigation will be carried out in keeping the present wave of globalization and its effect on criminality in view. Ultimately, an analysis will be made about the Cyber criminality and how it has been activated and affected due to invention of Computer & Information technology.

UNDERSTANDING CYBER CRIMINALITY

Why Cyber criminality - What went wrong?

Another aspect about Cyber criminality should be taken into consideration. Why, today, does the stage have arrived to make hubbub about Cyber crime? Exactly what went wrong? In mid of the twentieth century Cyber-Technology appeared on the scene and it is adopted by the society for conducting transactions, communication and for other purposes. Due to wide alternatives, capability of carrying out assignments, speed, executing operations, memory storage capacity, it spread with leaps and bounds and soon encompassed entire globe.

Till the end of last millennium Cyber Technology had advanced throughout the world on experimental basis and it had been started to make impact in different corner of the world and different sphere of life. But unfortunately, *despite* it's increasing use, *despite* the increasing automation process, *despite* increasing dependence of man on the machine, **no sincere research base effort had yet been undertaken to check its impact on other aspects of life**. Thus by the end of 20th century, we had contrast picture. A developed technology and underdeveloped legal mechanism to deal with.

CYBER-TECHNOLOGY VIS-À-VIS CYBER CRIME – CHANGE OF PACE

The problem of Cyber crime can be understood by understanding Cyber Technology. The world is witnessing the situation of ever-growing field of Cyber-Technology. The technological growth rate is too fast. In last decade itself, the number of netizens increased by 1500 % in India. Banks, insurance companies, railways, and universities are installing computers for their speedy operations. Thus Technological Adoption is at it peak. However, the problem of Cyber criminality oozing out of Technological Adoption is not properly tackle along the line of its growth. Thus, the period has been witnessing the different pace of development between Cyber Technology and infrastructure in preventing Cyber crime. Within a short span of decades, a huge gap between Cyber Technology and Cyber criminality has happened without any hope of bridging the gap.

Consider the example of India itself. India is considered as a 'think-tank', 'best brains', 'silicon valley' of computers, having maximum numbers of computer engineers and experts, and we are also exporting our software and hardware engineers equipped with specialized technological brain to America too! Thus statistical data manifest that India is one step ahead in Cyber-Technology than rest of the world! India is fit country for outsourcing material form developed countries! But what about the knowledge and mechanism of controlling the Cyber crime?

The same situation is prevailing in the world. In fact, it is desirable and expected that during the infant age of Cyber-technology; the legal mechanism would have to start to shape its utilization, distribution, dissemination and consumption. However, since from the beginning the Cyber-technology was started to use, experimented, exhausted and consummated, but not legally regulation till late 90s. This leads to wide gap between technological development and legal regulatory mechanism. The social mechanism in general and legal mechanism in particularly would have to come forward with their regulatory weapons. If those strategies would have been followed, there might exist the Computer Technology and controlling mechanism at the same level of development. However, it can be clearly evidenced that the pace of development of Computer Technology vis-à-vis Legal mechanism to control Cyber crime was not at the same pace where former has been growing with leap and bound and latter remain hidden and laying dormant. Thus, it is regretful situation to evidence our failure to safeguard the present generation. Today, adoption of technology has no alternative without any protective wrapping against its evil effect on society.

Speaking about India, to educate kids about computers, technology, computer games, chatting, by compulsory MS-CIT courses, by making computer education compulsory at primary level of education become fashion, but words like Cyber crime still sound new to their ears! Thus when generation together is assimilating computer literacy without legal awareness and criminal implications. The educational curriculum of these courses about of computer technology hardly contains the awareness about Cyber crime.

The ignorance of computer related crime can simply be understood in India when in banks, government offices or at sensitive places; the office personnel are using simple passwords like names, surnames, pet names, and school names. Such use of simple 'guessable' password at sensitive places clearly evident how sensitive the people in India about security aspects of their computers. At number of occasions, it has been observed that the Internet ID and Internet password is same in most of the institute which may facilitate to cause theft of Internet hours.

In short, the demand of alteration in the existing situation is already overdue!

CYBER CRIME – A DISCUSSION FROM LEGAL POINT OF VIEW

Cyber crime - Law prescribes, not describes Cyber criminality.

Crime is phenomenon, which requires focusing on *Sociological, Political, Economic, Law and other related* branches to understand it in comprehensive manner. As this article undertaken from legal point of view, it is essential to analyze Cyber-criminality from legal point of view. It is should be borne into mind that crime is the phenomenon which is generally considered from legal point of view.

Understanding Cyber crime from legal point of view causes difficulties because law can only prescribe, couldn't describe. Thus legal literature says, 'What is crime'? But mute about 'Why is it so'?

General Characteristics of crime - Considering some prevailing notions

'Crime mean the act punishable at law'. 'Crime mean the act for which the law prescribes punishment', 'Crime are harmful, anti-social acts' are general prevailing notions into the society. Crime without legal prescription is myth and merely remains evil or sin if legal aspects are withdrawn. However, careful study of word 'crime' reveals some objections.

By way of generalization, some common principles may be extracted that (can) apply ideally to all crimes and are the criteria actually used in determination of certain act branded as crime or is not crime. They are consistent with the ideal characteristics of the whole body of the criminal law. Basically politicality, specificity, uniformity, and penal sanctions are considered general major constituent for categorizing any act as crime.

Whether 'offence' or 'Crime'

It is surprised to note that the major lex-loci on law of crime[i] is silent about the definition of word 'crime'. And even in the said statutes, word 'offence' is used instead of 'crime'. Incidentally, too, the IT Act, 2000[ii] does not define the expression 'Cyber crime' but only punishes a few of the many Cyber crime.[iii]

Again, Indian Penal Code, 1860 word 'offence' defined :-

"Except in the chapters and sections mentioned in clauses 2 and 3 of this section, the word **'offence denotes a thing made punishable by this code.'**[iv]

In the same manner, word 'crime' has not been defined under Indian law.[v] General Clauses Act also

defined the word 'offence' instead of word 'crime'. The same scheme has been adopted in Criminal Procedure Code, 1973.

The word 'offence' defined under Criminal Procedure Code, 1973 is as follows:

"Offence means any act or omission made punishable by any law for the time being in force and includes.........."[vi]

Thus according to penal law, 'offence means any act or omission for which the any law time being in force imposes penal liability.' In short, those acts fall within the preview of penal laws for which any law time being in force prescribes punishment. The scheme adopted to describe the act or omission to be attracted the attention of criminal laws is based on positive approach. Therefore in generic sense 'the act or omission that is not yet made punishable by any law time being in force is outside the scope of criminal law.' Again the definition of 'offence' is seems to be circular. Because it only says that offence is the act punishable at law.

Difference between 'Offence' and 'Crime'

Though penal statutes make use of the word 'offence', it is not synonyms with word 'crime'. Despite some common constituent elements like *'act forbidden by law'* '*legally prescribe penal liability', 'by state enactment'* are common factor of 'offence' and 'crime'. However the nature and scope of word 'offence' and 'crime' differ on various grounds.

'The difference between the two is one of (the) degree: A moral culpability is involved in a crime, such as theft, homicide; but there may not be any moral condemnation in a statutory offence, such as a violation of the provisions of the Motor Vehicles Act, or rash driving. They are, no doubt, acts prejudicial to the society, but they are punishable only because the law has prohibited certain conduct, and not necessarily because the act or omission is regarded by society as morally wrong. From the wrongdoer's standpoint, again, '*mens rea'* or a guilty intention is, generally, a necessary ingredient in a crime but not so in a statutory offence. In short, all grave offences involving moral turpitude and punishable by the State are called crimes. The object of punishing crime is to set an example, that is to say, to give a warning to persons in general not to cause such injuries affecting the interests of the community as whole; while the object of punishing

an offence is the interest of improving the social condition and efficiency.[vii]

This is clear from the above discussion that 'offence' is a wider term having extended connotation than word 'crime' and definition of offence (according to criminal law) also encompasses the criminal act. Thus offence includes 'act regarded as crime' as well as 'act punishable due to public policy' (more specifically, like negligence, accident). From the generic sense, the approach adopted in penal statutes can appreciate. Because entire legislative framework comes forward with enactments declaring certain act prohibited by law irrespective whether they fall strictly within the definition of crime. And on the contrary some act, which may fall within the definition of crime, may not occupy place in the strictly enacted statute.

When the crime has to be studied from various angles including legal one, it is required to step out of the strict legal definition. Because, in order to consider those premises of act which though not fall within the strict definition of law, but are harmful, anti-social in nature, legal definition restrict the coverage area. Again, statutes, acts, cases are too much logical where the effort has been made to analyze whether the act fall within the strict wording of printed law or not. However, from the academic point of view, it requires to study the act, its effect and harm it causes, despite printed law may not describe it.

It should also be noted down that the rules of criminal law contain only definitions of specific crime, such as criminal conspiracy[viii], obscenity[ix], theft[x], extortion[xi], Robbery[xii], Criminal breach of trust[xiii], Stolen Property[xiv], cheating[xv], Criminal Trespass[xvi], Forgery[xvii], Defamation[xviii], and Criminal Intimidation.[xix] However study of criminology reveals that legal scholars have been able to abstract certain general principles from such definitions. These general principles apply ideally to all crimes and are the criteria actually used in determination of whether any particular behavior is or is not criminal.

Thus the definition of crime (in positive way) that appears in the statutory enactment may differ from the standpoint of criminal jurisprudence. Because the coverage area of criminal jurisprudence definitely wider than merely the criminal enactments which deal criminality focusing strictly on the provisions of imposing criminal liability. So far as criminal jurisprudence is concern, the extract of the study consistent with the ideal characteristics of the

whole body of the criminal law. Thus the present research writing has been executed with the approach of 'to abstract certain general principles (that can be) apply ideally to all Cyber crime[s] and are the criteria actually used in determination of whether any particular behavior is or is not criminal'.

Then can Cyber-crime really categories as crime?

Genetically, no person can be prosecuted for an act, which is not declared as crime at the time of commission of an act. The Constitution of India also guaranteed,

Art 20: Protection in respect of conviction for offences. -

No person shall be convicted of any offences except for violation of law in force at the time of the commission of the act charged as an offence, nor be subjected to a penalty greater than that which might have been inflicted under the law in force at the time of the commission of the offence. [xx]

Thus in India, punishment without prior declaration of any acts as an offence or crime is bared by Constitutional mandate. The majority of an acts fall under new category as 'Cyber crime' is still to be declared as an offence. The Information Technology Act, 2000[xxi] has neither described the 'Cyber crime' nor categorized it. Only the punishments have been prescribed for certain act such as tampering with computer source documents,[xxii] hacking with computer system,[xxiii] publishing of information, which is obscene in electronic form.[xxiv]

However, apart from these traditional crimes there are other categories of Cyber crime that are not covered by the Information Technology Act, 2000 for e.g. Cyber stalking, vandalism, the Spam, and network worm, **Packet Sniffing, denial of service attack etc.** Cyber crime is equally harmful, anti-social having all the characteristics and qualities being declared as an offence but it is still out of the purview of the Information Technology Act, 2000 or any other law time being in force. Therefore, within the couples of years of its inception, most of the jurists are considering the Information Technology Act, 2000 as outdated.

Considering these aspects, and reading it with Article 20 of the Constitutional of India that guarantees a protection from ex-post facto law, it is difficult to treat it as an offence. Thus genetically, and strictly speaking from legal point of view, have discussed about crime in this article and analyzed it from the angle of crime may be out of the purview of legal literature.

CYBER CRIME - GRAY AREAS: A COMPARATIVE EVALUATION WITH TRADITIONAL CRIME

During the past decade, the growth in the use of the Internet and the (Cyber) space it has created, has developed from science fiction into a socially constructed reality. Cyberspace possesses some unique qualities which create a series of challenges for our existing laws.

These qualities are: its lack of respect for jurisdictional boundaries, the sheer volume of traffic that it can handle virtually instantaneously, its openness to participation, the potential for anonymity of members of the virtual community, its apparent economic efficiency. It is these very qualities of Cyberspace, which has today become its nemesis and has necessitated the need for Cyber law.

Cyber law exists at the (cutting) edge of law, where the ability of existing law to achieve its goals is challenged. In this sense the "law" in Cyber law is a much broader concept, it is "law in action" as opposed to "law in books" as it applies to situations where Law cannot cope. Moreover, the technological revolution has wrought in its wake various security issues and there was an urgent need for security experts as well.[xxv]

> i. **Present system - suits to traditional criminality & fall short for Cyber-crime**

Today, Cyber crime has settled on Indian scene. But Indian Legal System is still alienated towards it. It is expected that the regulatory mechanism should pick up the task of controlling the process before it outweigh and collapse. But in this respect, machinery of legal control is clearly seems to be lagging behind. Therefore, new development in this area posing challenges to the fundamental principles of law, which worked well before the advent of this technology. Our legal literature is worn out, if not become outdated. The present system is suitable to some extent to deal with traditional criminality only.

Need of reformation in this regard is already overdue.

ii. In the age of ICT, threat is non-optional and bound to increase

We are aware that today, the life without computer is difficult to imagine. It is observed that, "Only a hermit would be unaware of the degree to which computers have permeated every aspect of our lives. From the cradle to the grave our activities are influenced, tracked, recorded and controlled by computers".[xxvi] Computers get associated with a person before his birth when CAT scanners detect birth defect or determine sex and remain associated for sometime even after the death till insurance issues are settled. Computers have invaded every aspect of the life and the impact has been so quick that it caught the institutions of law and justice unawares.[xxvii] Thus for modern generation, computer associated with human life from womb to tomb. The new developments are posing challenges to the fundamental principles of law, which worked well before the advent of this technology.

And with the increase in automation and use of Cyber Technology, the scope and its danger is bound to increase. No words can better describe the present scenario of technology than the following stated by Cosmos-the villain in the movie "Sneaker" in following words -

The world is not run by weapons any more, or energy or money, it is run by ones and zeroes-little bits of data. It is all electrons. There is a war out - a world war. It is not about who has the most bullets. It is about who controls the information. What we see and hear, how we work, what we think. It is all about information.[xxviii]

However, Cyber Technology throughout the world is with its full magnitude, but socio-legal awareness amongst the people is not yet highlighted. Therefore, the Cyber criminals today are wandering freely, without threat and fear. We can compare the present society with the innocent baby who is trying to play with fire-works unaware of its potential danger it may cause. The present society is also too much innocently dealing the Cyber Technology remaining deaf and blunt from the probable danger the Cyber criminality may cause.

iii. What role can Legal system be loaded with?

In modern civilized societies, 'Law' can be the most effective instrument of social control and social change. 'Law' should like filter paper, anti virus, gatekeeper and purifying machinery for Cyberspace. Therefore, if 'Law' has to fulfill social expectations, it must keep itself one step ahead, well equipped, advanced and sensitive towards social change. In modern days, 'Law' cannot afford to remain oblivious of these developments and lose relevance.[xxix] Today, 'Law' must be advanced and well prepare and acceptance of new development into the society should be under strict supervision of legal system. Legal system should armed and guard society against any probable danger from changing process. For effective controlling and safeguarding the social interest emerging from challenges of developmental process, it is expected that 'Law' must keep its supervisory eyes on all the changes before it reach for application and use in society and must be scrutinized and filtered through 'Legal' machinery before passing to social hands.

iv. New challenges before legal machinery

It is therefore, a time to redefine the role of 'Law' and legal machinery in present context. Before 'Law' loss it relevance, it must modernized, define new terminology which can suits to existing situation, develop framework and network to check challenges. Cyber crime should have its own vocabulary, terminology, jurisdiction base and each level need special attention. The situation demands that there should be a concrete effort on the part of the Lawyers, Judges and Legislature to resolve the legal issues rises while information sharing, dissemination, distribution and consumption. There is genuine feeling that the new world of digits demands training not only to the Bench and Bar but also to law enforcement agencies as new language has been introduced which has given new meaning to old words.[xxx] The Colonial law had its own working methodology. The colonial methodology restricted with conferring rights, imposing duties and creating liabilities, the responsibility with strict colonial execution, and rest things would follow. But, today, when we claim is being made to be 'welfare state', this fashionable 'colonial way' of working pattern is outdated. Affirmative action on the part of law enforcing agencies is simply a need of an hour.

v. Need of balancing offline world and online world

It is necessary today to give a thought of balancing the offline and online world. As stated earlier, the Cyber-technology has opened the entirely different

world, the space where we live in electrons, breath it and move along in the form of electrons and bytes. It has created a visual world, entirely different than our social world. The Cyber-space has computer games, conferences, chat rooms, shopping complex everything we have in real world, but with different atmospheres.

Just take an example of computer games. There are traditional games like cricket, carom, **Gulli-Danda, Kabbaddi** etc which used to be played by children with their counterparts. But computer games are being played by these kids of present generation by sitting in closed rooms without human company, and most of the time, they are even unwilling to be got disturbed, and these games hardly provide any social atmosphere which would doctrines the process of socialization. The youth, one can find, sitting hours together in closed cabin of Cyber café wandering in chat rooms, but more resembling liking sitting in toilet, because he is lacking social surrounding. It gives a sense of belongingness in different world. The kids before TV cartoon, or youth in chat rooms are playing in isolation. They are entirely in different world where they don't need their classmates, no friends, nothing, and if having, everything is imaginary! The computer games are satisfying their lust, fantasy, visualizing them as a powerful winner! Ultimately this makes them computer-worm, the kid who just likes to play with computer and don't like the company of others. Even they don't need their parents.

Today most of the parents are making complaints that their kids are becoming addict of computer games, and TV cartoon shows, and youth are computer savvy, and driving out of their bond of love. They spend maximum time before computers - surfing and fun-liking games. This is equally true with the youth who are spending their valuable time in chat room where they can meet imaginary friends and can share their fantasy. They can fall in love, share emotions, goes on dates but hardly anything is real!xxxi The social ties existed before are much more solidified, exerting social pressure, and capable of holding social members with social adhesion. Thus, a couple of generation before, man who has been ex-communication, banishment, isolation, confinement, and keeping outside the society would considered as punished and would felt lowering down of image in society. Person would have felt uneasy even to think about it. However, today, everyone is running towards electronic machine. In past, persons used to feel amusement, entertainment and consolation from social relation, today electronic toys are provided lots of amusement, visual powers and playing fun where nobody want to spare time for others, even for parents, brothers, and friends too!

In nutshell, life in virtual world is responsible for mushrooming various psychological problems amongst the generations. They are becoming addict of computers which is able to satisfy their fantasy, sometime good - sometime bad. But definitely this visual world is driving them away from real world. Though the present article has attentped the enquiry and focused from the pointing of view of the controlling criminal aspect of this Cyber-technology, but the seriousness of the problem can not be easily side-tracked. To add statistical figures, NESCOM research data forecasted that Indian Computer Market has possibility to raised 40 million Dollars by 2006.xxxii Imagine how much kids, youth and fun lover in near future will be affected by it?

Revolution in Information & Technology is admirable, but its impact on human generation cannot be blindly appreciated. It is, essential, therefore that much attention should be given to balance between visual and real world.

CYBER CRIME - WHERE THE DIFFERENCE LIE?

Consider a situation existing before a couple of years. What was the concept of securing the money? How did a few lakhs rupees in Government Treasury use to secure against theft? There was vault constructed by sturdy metal, the location of strong vault-room was either in the centre of premises or underground. One has to pass through two to three doors that were guarded by codes or locks having several keys held by different persons. There were narrow passages, dim lights and security guards patrolling aground the premises with standing orders to arrest any unauthorized, suspected persons. He would be immediately taken into custody for interrogation. Even patrolling security guards with guns had standing order to shoot the person attempting to commit robbery. Notwithstanding these safeguards, there were electric current running through the iron bars, security sirens, police dogs. And even if, the robbery would have been committed, the police machinery could seal all the barriers to trap criminals. Numbers could trace the stolen currency;

the suspected accomplice could be arrested to get any clues.

HOWEVER, WHAT IS THE SITUATION TODAY?

Today, the Cyber-Technology has entirely changed the concept of security and safety. Printed currency is transformed into electronic bytes and capable of moving through optic fibers. Now one can have a simple ATM card, which carries Crores of rupees, and e-banking has facilitated the withdrawal of amount from any place, even from any corner of the world! The currency is in the form of electronic bytes and can be flow through wire, can be transferred by satellite transmission and capable to carry on a simple Credit/Debit cards. But can we rest assure about the safety of these digital money? Though being controlled by bank's server? Does bank server secure as strong vault-room *were*? How much security aspects of previous days are significant today? Today anybody can hack, intrude in the bank website and make changes to commit theft. No need to have physical presence! No need to breaks locks, no need to have duplicate keys, even no need to have identity cards, need not have to face patrolling guards, no fear of guns, checking at barriers, chasing by dog squad, check posts, or tracing by currency numbers! Today one can easily breaks strongest firewalls of bank server. What is needed? A few lines of programming!

It is therefore taken into consideration that the study of any sort of crime is continuous process. Whatever best study made in past may be good but not relevant during the course of time. This is equally true with other dynamic concepts, because it require continuous indomitable perseverance. The study material of this subject is continuously subjected to change and therefore, it needs a fresh look each time. The study material of crime is just like a flow of current stream where present will be soon imbibed by recent past. Also in this electronic age, concepts are subjected to the change with electric speed.

Thus, the Cyber-Technology has made the life transactions more dangerous and deadliest in modern days, because it has entirely changed the concept of money, property, security, safeguard and has brought everything at the stake! In the Cyberspace, nobody is safe, nobody can feel protected! Today, even one cannot sleep quietly with the thought that his money is safely laying in his bank account? Really does one think that he, his

money, or even banks, which were once having safest lockers, has remained as strong enough to protect his money? Just read any newspaper! Go to columns covering news relating to Cyber crime, relating to economic frauds through ATM (Automatic Teller Machine).

Guess, this is only one example of Cyber crime related to money transactions, thousands of new types are yet to describe, yet to emerge and yet to face!!

INDIAN LEGAL SYSTEM – NEITHER INDIGENOUS NOR MODERN

According to Puchta, "Law of the nation grow with the people, strengthen with the nation as it strengthen and lastly die away when nation lost its nationality".[xxxiii] Thus basic thrust of those thinkers who belongs to Historical School feel that law of the nation reflect true picture of nationality and by studying law, one can understand the socio-political situation existing into society. However, the statement does not appear true if scrutinize with the Indian scenes. As Indian Legal System reflects colonial dominance, present laws of the nation neither provide true picture, nor display reality. This is equally true with respect to criminal justice system in India.

i. Intricacy in pursuing Law as a mirror image of social reality

In India, while attempting to define legal terminology from social point of view always encounters some cynicism, particularly to figure out the concept like crime. While attempting to understand and conceptualize legal mechanism for socially correlated issues, it come across with some difficulties and necessitates stepping out of legal reservoir to make this article more relevant. Because Indian Legal system reflects, peculiar colonial influence and culminated to define law in way of Austinian logical rationalization. Thus development of Indian legal system, during pre-colonial and post-colonial period manifests the dogma of imported rhetoric idealization and nationwide generalization of law in Benthamite way that makes it difficult to discover indigenous characteristic features and appreciate it as well. Particularly, when we envisage the purpose and functionalistic approach of law for social reformation and renovation like, **'law as an instrument of social change',** OR **'Law as a product of culture and tradition',** assigning socio-functional role (and

values) to **'law',** the careful study reveals some objections.

ii. Colonial impact on India Legal System make it alien for natives

Another problem of Indian legal system is that of colonial impact on legal system. From Language to Law in Indian Legal System, everything manifest colonial influence. This makes Indian Legal System alienated to indigenous society. In India most of the laws are either of British origin or passed during the first three decades after Independence. During the colonial period, though some development was took place, but it was enacted focusing the interest of ruler. Thus law enacted during this period supported colonization and true spirit of law as an instrument of social development was totally sidetracked. In the first three decades after independence, though the effort had been made to make overall system socially compatible, the computers were not dawn on the scene.

Therefore, the law passed during this period totally unaware about computers, and it is equally true about the system develop during this period.[xxxiv] Thus the period when computers had not made so much of influence as we see today and Internet, during this period, simple did not exist.

Most of the existing laws assume physical environment, geographical boundaries, and tangible documents as prime concern and created jurisdictional limitations for administration of criminal justice system. As against this, in a digital world every thing is recorded in digits, without any respect for political boundaries and can be modified, altered and replaced without any murmur.[xxxv] Born as part of an intelligence military system, Internet has become an essential means of communication and information with great democratic potential as an organizational tool for social movements challenging the domination of political and economic power.[xxxvi]

iii. Law incompatible with society & understanding Society by reading law is futile

Commenting on the difficulties encountered to understand India from legal standpoint, Mark Galanter remarked-

The attempt to use law as a path to the understanding of modern India (Indian law as well) encounter skepticism from several quarters. Before proceeding to examine the possible significance of legal studies, I shall attempt to state (and label) these objections -- which derive, in turn, from the nature of legal materials, from their relation to society and from the peculiar features of Indian law. First, **legal materials are normative rather than descriptive**. They are so immersed in technicalities and at the same time so given to rhetorical idealizations as to obscure rather than reveal social realities. Second, **doctrine does not necessarily reflect practice**. The actual behariour of regulators and regulated does not necessarily bear any constant relation to doctrine; doctrine, therefore, provides no reliable index either of actual pattern of regulative activity or of the degree of conformity of the behaviour purportedly regulated. Third, **nationwide generalizations are of little value**. India is a vast and heterogeneous society. Since the law largely ignores local conditions in favour of nationwide generalizations, it is of little value in understanding local conditions and inevitably obtrudes misleading generalizations. Finally, **Indian law is foreign**. Much the greater part of modern Indian law is palpably non-Indian in origin and it notoriously incongruent with the attitudes and concern of most Indians.[xxxvii]

Therefore it is felt indispensable by present researcher to touch the facet of 'Cyber crime' *and* mechanism of its legal control from various perspectives; sometime within periphery of legal circumference and sometime stepping out of it. This article deals with concepts like Cyber crime from the viewpoint of components of 'Criminality' at national and international level and at the same time the impact of 'Globalization' and 'Information Technology'. In addition, what so far this trio offered to Legal system to cope up with the problem of 'Cyber-criminality' in India. It underline theme is, how far the present legal system need to upgrade to deal with the crime of new millennium.

iv. Indian legal system - A compound mixture of traditional and Modern

It is interesting to note down that Indian society is neither completely modernized, nor completely traditional one. We fail to accept modernized thought and fall short to reject colonial past. Therefore, here we are having advance law dealing with computer virus and hacking passed in third millennium[xxxviii] and also the law dealing crime like thug[xxxix], the crime, which is hardly exist today.

This clearly shows that the Indian Legal system is trying to balance between traditional old pattern and struggling hard to switch over the new one. It is also

keep into mind that merely the new legislation does not solve the problem of modernization. It requires that system should be modified from the top to bottom level. Legislation is only one part of the legal system. To change the system to make it compatible for new emerging problems, it is essential that it should be changed at every level, including substantial and procedural level too.

CYBER-CRIMINALITY, GLOBALISATION AND RELATED ISSUES

Marshal McLuhan in his book Understanding Media said that due to invention of new technology used in the communication mechanism the **'World is reduced to global village'**. And it is true to some extend. Today, accessibility to any corner of the world with the help of wireless technology is easily possible. Globalization has shrunken the world and bring world into closed room and can be remained present everywhere by sitting before computers. The Globalization and Information & Technology has added different flavours to Cyber-criminality. This give different dimensions to the concept Cyber crime. It is essential to view Cyber crime from various angles like criminality, globalization and Information & Communication Technology.

Today, technology has already changed the concept of time and space. One can remain present anywhere, anytime, and participate. In read sense, today, the world is shrinking into space and time. With the above vision, in forthcoming sections, issues relating to criminality, Globalization and Information & Communication Technology have been discussed.

CYBER CRIMINALITY - NATURE AND SCOPE

i. Criminality is omnipresent - Crimeless society is a myth

Crime is a socially correlated phenomenon. The confirmation of crime-existence can be substantiated from each representative snaps of 'society' reflecting different developmental span. With time, changes occur in the nature, scope, and definitions of crime for given society. Crimeless society is a myth and it is non-separable component of society. Crime, despite branded by various expression, *such as philosophically* - as human weaknesses, masked demon, necessary social evil *or explained scientifically* - as genetically disorder,

anthropological disproportionate variation, psychological abnormality, impact of imbalance human composition, always has proved existence with varied degree of rationalization, changing definitions, fluctuating magnitudes, compatible with politico-psychological recognition. Nature of crime, whether simple or complex, depends upon the nature of society.

Thus within the simplest form of society, simple crime exists and as society grows up towards more complexities the magnitude of criminality also attain corresponding complex level. At the same time, preventive and corrective machineries of society are always following up the crime and delinquencies in society. In short, criminality is a relative phenomenon that depends upon not only of the time and of space but influence by the various socio-economical and political riders, as well as even population of the society. In short, study about crime requires verifying all those factors influence and contribute it.

i. The Advanced age and automation process has create fertile land for Cyber-criminality

The age of automation, with stepping scientific advancement, produces new social, economic, and political problems, where the technology instead of providing solution, is an instrumentality of new complex situation to be dealt with. In the present scenario, the legal system though equipped with its tool of logic and reasoning, finds it unable to apply the same efficiently to the arising situation where the facts and even law is difficult to understand and apply. In the words of William Zelermyer, -

'We live in an age of automation. The displacement of human hands by machines has been going on at an accelerated pace. The washing machine has replaced the scrubbing board; the automatic transmission, the shift stick; the typewriter, penmanship; the computer, the pencil. Speed and efficiency have become prime objectives. The machine has outdone man in physical matters, but it is conceived, fed, and controlled by the human mind. New social, economic, and political problems arises with each scientific advance, but no mental machine has yet been devised to grapple with them. An electric saw may produce a swift and clean cut, but the mind travels a longer course and views the scenery on the way. As King Solomon well knew, no satisfactory decision could be

produced by the sharp blow of an axe. We have no coin-operated courts. Univac may make predictions but cannot make decisions. The formula of logic is the closest we come to automation in thinking, but its power as an instrument is limited by the scope and accuracy of its premises as well as by the object sought to be achieved.[xl]

Modern society is on the peak of its advancement. We have already switched over to the electronic age leaving behind electric age. Vast communication facilities have reduced the world into global village. Scientific and technology help human being to exhaust its entire limit to taste the fruits of development. Today, it is possible to access any corner of the world (or visually remain present) by sitting in a room. Today, technology has liquidified the barriers of time and space. Are we at the vanishing point?

i. Global connectivity via internet has proved boon for Cyber criminality

Today, feasibility of global connectivity has been facilitated by Cyber-technology. The Internet permits netizens to interact and transact with one another across (and beyond) geographical boundaries with luxurious ease. Internet networking provides its users the ability to migrate from one website to another almost without realizing the complexity (and other legal complexities too) of the software tools that makes this possible.[xli]

Conventionally, geographical and territorial fragmentation of world by national boundaries and segregation of community on national and territorial index provided at least a facility of deciding jurisdictions of legal systems. However, global connectivity helps to evaporate artificial boundaries and via Internet, you can have your (visual) presence at any time and place.

Internet is a borderless world in the world of geographical borders, which has given rise to one of the most debated problems of determining jurisdiction in disputes pertaining to cross border transactions over the Internet. When we are using the technology consummated globally, it is difficult to control it by local governance, not compatible with cross-border governance.

i. 'Peace-Period' motivated technological inventions and shrink world into global village

Advent of Technology has also provided room to some evils to be crept in. With every invention, uses and misuses are always clubbed together. Similar is the case with Cyber-technology. No doubt, that Cyber culture provides us an electronic base of interaction vis-à-vis electric speed to our impulses that is entirely useful in every walk of life. Nevertheless, the evil effect like Cyber crime also crept in and now we are facing great threat of its impact on world society. Particularly when we are dealing in a globalize village, where mechanical automation is occupying a greater part of human life giving way for more and more scope for mechanical dependence of human being, the human society posing great threat from the categorical criminality like Cyber crime.

ii. Trans-national criminality - the International concern for Cyber crime

The present millennium affected by the process of globalization where there is echoing of information-superhighway within the whole community, the matters seems to be more complicated. Because as known from its trans-national nature, Cyber crime is global phenomenon. The terminology is totally borrowed and its application package entail barrier less jurisdiction.

During the past decade, the growth in the use of the Internet and the (Cyber) space it has created, has developed from science fiction into a socially constructed reality. Cyberspace possesses some unique qualities which create a series of challenges for our existing laws.[xlii]

Under these situations, the traditional way of nation wide generalization of definition of crime seems to not workable. Particularly with respect to those crimes falling in the categories of trans-national criminality pose some challenges. In different words it can be put as follows:

[Thus] the difficulties lies in properly defining the laws needed to allow for Cyber criminals' apprehension and prosecution. While seemingly a straightforward task, difficult issues are raised. One is whether the definitional scope of Cyber crime should include only laws that prohibit activities targeting computers or should outlaw crime against individuals affected through the computers as well,

such as Cyber stalking and Cyber terrorism. Another is whether these laws should be focusing Cyber crime specifically targeting only crimes committed by exploiting computer technology. Is it, for example, necessary for a country to add a "computer fraud" offense if it has already outlawed fraud? Both these issues are national in scope and go only to the nature of legislation a nation should adopt.[xliii]

Therefore, to wrap Cyber-criminality within national pocket would make regulations irrelevant. It is essential to think about to give international recognition for defensive mechanism against Cyber crime.

ii. Some incidences of Cyber-criminality - The threat is not imaginary

Therefore, though Cyber-stalking is not a new phenomenon, and in real life there are not a less incidences of stalking, the sea change has occur in the phenomenon due to vast difference transpire in Cyber-stalking due to the specialty that Cyber-technology produce for these criminality in general and Cyber-criminality in particular. Thus Cyberspace has proved a boon to these deviants.

Consider some incidences of Cyber-criminality that can be happened to anybody:

Mr. X shocks to see that his 14 years old girl is watching porn, obscene and vulgar websites, though due to her tender age she should not have to access to such porn materials. **This is an example of Pornography.**

Mrs. P starts to receive obscene calls from the person asking her to meet in deserted place and they are ready to pay for that. First she ignores such calls, but when inquired about it, she shocks to listen that the callers are getting her photos and telephone ID from the website where the information has pasted that she is a secrete slut and anybody can have her if ready to pay. When she makes complaint to police, it has been traced out that somebody has pasted it on the website. As website is registered in America, nothing can be done. Website owner refuses to provide the name of culprit. **This is an example of Cyber-Stalking.**

Mr. A finds that whenever he starts using his computer, one massage uses to appear on his screen and he is unable to avoid it's repeated appearance. While inquiring about, it reveals that virus has infected his computer. Might be due to

any websites or e-mail he has received! **This is an example of Virus transplantation**.

Mr. D finds that outstanding balance of his ATM card is debited by thousands of rupees. When inquires about, bank has informed him that as per bank's statement, on a particular date he withdraw the amount but in fact Mr. D never! Banks official personal fear about the money theft committed by anybody by using fake password of Mr. D. **This is an example of ATM fraud.**

Mr. T complains that his computer system is running deadly slow. It has been observed that his machine memory has full off swam/worm, which eat up the maximum machine memory making the process deadly slow. **This is an example of worm/Spam.**

When concerned police officer tries to match the fingerprints of culprit with that of fingerprints available in his computer, he is unable to extract data and file is unable to open. It has been discovered that somebody has tampered the data and either extracts useful data or destroys it. It is advised by experts that he will have to re-enter the entire data, which may cost several hours' manpower, money power and mental harassment. **This is an example of Data tampering/theft of data.**

A famous website of TV new channel having electronic news agency is unable to access by netizens. It is either displaying unreadable data or giving 'error' massage and unable to display on the computer screen. It is revealed that somebody had hacked it. It causes tremendous lost of time, manpower, money, market and reputation to the news agency. **This is an example of hacking.**

Mr. H has purchased Internet hours for surfing the Internet from his home. But to his surprise, after surfing few minutes, he receives massage from ISP (Internet Service Provider) that his time of surfing is over. After investigation, he comes to know that somebody has committed theft of his Internet hours from different computer using his password and Internet ID. **This is an example of theft of Internet Hours**.

Mr. G approaches to his bank for withdrawal; however, he is informed that his balance was almost 'nil'. His bank account is displaying the entries that money has been already withdrawn from his bank account a couple of days earlier. It is afterward unearthed that one of the bank intruders (might be

employee or even outsider having frequent and convenient access to the server) fraudulently misappropriated and transferred the fund from the account of Mr. G to another's account. It is learnt afterward that the programming into the Bank computers and making miner changes in the software running the computer systems of the bank has materialized the transfer. **This is an example of e-fraud.**

These several examples can be quoted here which are based on the real incidences. However, main gist of these problems lies in computer related crime that is now dawning into reality in the Cyber-space and it requires urgent attention.

GLOBALIZATION: CONCEPT NATURE AND SCOPE

i. Globalization - Dismantling national barriers

Globalization implies dismantling of national barriers to carry on production and distribution activities with the objective of deriving optimal benefits in the production and distribution.[xliv] The process of globalization is, basically, termed to be phenomenon correlated with economical activities as the motivational factors for globalize activities is moneymaking or profit making. Nevertheless, it affects and impresses its impact on other section of life. Thus as it basically understood, the process of globalization starts with economical interests of the front fostering other interest within.

ii. The Neo-Globalization - Old wine in new bottle

This is, in generally, wrong conviction that globalization is a modern process. Actually, it is an old wine in new bottle. Thus when East India Company was incorporated on 31st December 1600 A.D. with prime objective to trade in the eastern part of the world, keeping economic interest as objectives on their memorandum, but while solidifying those objectives in colonies, gradually other interests were crept in and their activities were not restricted to trading activities. During the course of time, these European countries were engaged in the battle amongst themselves and with native rulers. Race of grabbing more and more territories was begun. In Asian and African continent, these European countries were fighting for their illegitimate share. And in India, ultimately Britisher emerged as fortunate invader and succeeded to overthrow

French and Portuguese and Duchess except in few parts. The process was common throughout the world except European continent and even America was soon grabbed by British Empire under their reign.

Though America soon overcame the foreign rule, other poor nations were not enough fortunate to overthrow iron pawn of these powerful and advanced European giants. Particularly, Asian and African nations were fallen pray to these rulers and get exploited almost till middle of 20th century and it was only after the Second World War they could breathe the free air of independence after fall of big powers. The course adopted by these European Big-powers to find out routes for the nation for trading purpose and search for the market, which could provide raw material for their industries as well as serve as consumer market for their industrial product can be conveniently termed as "Globalisation".

Therefore, even though today, the globalization seems to be new in its forms and features, but it is old wine in new bottle, only with following variations.

iii. Neo-Globalization - Its new variations over the past

Recent wave of globalization is restricted only to acquire the territory and established the rule over the provinces. During 15th and 16th centuries, globalization took place in curiosity of new territories, for new business opportunities by undertaking valiant voyage by European nations followed by military operations. Operations under physical observation were unique key of medieval wave of globalization.

Today, the situation is entirely changed. Technology has provided drastic dimensions breaking the bond of time and space restrictions. Anybody can be acquired character of omnipresence just by remaining connected through networking. Thus, the territory has lost its importance and value. Today, physical barriers are meaningless as nobody is interested in occupying the land. There is no military invasion, no king, not a single royal troop, nor a need of battle necessary to penetrate into land. But there is multinational companies having huge amount and technology to invest and well equipped with money-power, machine-power and muscle power too!!!

Secondly, in recent wave of globalization, 'electrons' are sufficient medium for globalizing the world.

Today, technology has changed the concept of time and space. Anybody can access any corner and block of the world sitting in closed room without being remain present there. Therefore, National boundaries are meaningless and only electrons are sufficient tools that are helpful instrumentality for giving a sense of visual reality.

Thirdly, the driven force of neo-globalization is backed by economic interests, not by military forces. Thus, today, multi-national companies are on the front taking every chance of reaching every corner of the world. These multi-national companies are too much powerful and giant, that they don't need permission as sought by East India Company by **Mughoul Badshaha Jahageer**, rather they has started adopting a tactics of compelling underdeveloped and developing nation to mould their economic policies suitable for their economic interest. Most of the time, these companies diplomatically put on the mask of funding International Organizations like World Bank, International Monetary Fund, WTO to ensure back-door penetration. Thus, gradually the government of the developing and under-developed nations becomes puppet in the hands of these Multi-national Companies.

Lastly, the modern globalization attacks on money, market, consumers, commodity, and resources as against the preceding process of globalization, which was characterized, by attacking on Rulers, and their territory.

iv. Neo-Globalization - Its effect on world scenario

Consequently, globalization has entirely changed the world scenario. Moreover, this gives raise a complex situation over the traditional one. Because due to technology, the entire co-related concept can be differently interpreted. What are the products? Who are the sellers? How can be consumers protected against the services providers? Which rules should be made applicable to? Who are Masters & Labourers on net? Because, in Cyberspace, lot of points needs to be considered.

Though the process of networking in Cyber-space is in its formative years, still it has intensely changed the rules regarding business, communication, product, jurisdictions, and overall, scope for criminality in Cyber-space. And as maximum transactions and business has been carried out via web-pages it provides lot of scope for criminals and wrong-doer to hide behind the fake identity, lot of

scope are there where nobody can search him, and police machinery can compete against time factor, too to search criminals on the net.

As the process of globalizations mainly revolves round the economic activities (though it touches other aspects of life too!) it is necessary to consider the driven principles of New Economy in Cyber-Space in the age of globalization and scope to deal the Cyber-criminality.

v. Driven forces of Cyber-Technology

It should be borne into mind that economic interest is basically the driven force behind Cyber-technology and automation process. As reiterated earlier at number of occasions, information is basic resources for survival in competitive modern world. The winner of the competition is decided by possessing potentiality of manipulation, the way of accessing and utilizing market information. The technology that helps to assimilate the information fast and effective manner, therefore, bound to get importance in modern world. And thus, Cyber-technology, which has ability to support the market, has no alternative. The purpose and support provided by Cyber-technology is beyond imagination, the potential disturbance it caused is comparative low. Thus economic equation of profit and loss favours the acceptance of automation process. Speaking with example, banks that adopted Cyber-technology, the automation process, computerized data and internet connectivity is in position to spread over the world provide 24 hours services, low cost due to paperless data storage, and no dependency on manpower, no unions, no red-tapism. Thus the bank depends upon the new technology has better chances of survival though it has threat from hacker, intruders, electronic fraud. But comparatively this cost is low and any bank can prefer the computerization of its branches.

On the other hands suppose banks refuse and resist the process of automation, computers, internet connection due to fear of Cyber crime, can lag behind in the competition and reduces to satisfy only local costumers which would be very less in numbers. The services provided by these banks may restrict a few hours a day and there is lots of problems have to face due to traditional way of dependency on the manpower.

In short, there is no reserve gear to the Cyber-technology and Cyber crime, only one way is out to protect and curb the Cyber crime. Today, the mechanism we have to develop keeping in the view

of globalization. Any banks, institution, government office, universities, railways should develop its system considering the globalize world as its market. Think that one has to be in the globe and will remain in the globe despite there are threat of global criminality, like Cyber one. There is no way to go back into 'Jungle', no way out.

Thus globalizations has made Cyber-criminality easy, fertile and greater magnitude and left no option to reverse back.

vi. Cyber-Technology & Globalization - fuel to the fire

It is interesting to consider the impact analysis of Cyber-technology on globalization and vice versa. Both the process has it's own impact but in present scenario the perfect tie of both these process added new dimensions and directions. The process of globalization has acquired greater magnitude due to the Cyber Technology. At the same time what is the basic requirement of globalization has been, Cyber-technology provided fertile platform for its growth.

There is a total transformation of paper-based technology to paperless technology in the area of e-commerce. Cyber-technology facilitates e-transactions, money transfer across the world. Today, due to Cyber-technology there is complete change in the meaning and methodology of various terminologies in the field of e-commerce. For e.g. currency, note, denomination, cheque, draft, banking all concepts has undergone complete transformations.

What changes at all occurs at the melting points of Cyber-technology and process of globalization? Lets us considering following points.

GLOBALIZATION IN CYBER-WORLD - A PANDORA'S BOX

i. Matter Doesn't Matter in Cyber-space.

Today, in Cyber-space the concept of matter and its corresponding value has entirely changed. Therefore, it is not essential that heavy, sizable, weighty, solid commodity cost more. Thus, big machinery may be cheaper than computers and computers may cost less than the software's used in it. Therefore, as in Cyber-space we can deal in Crores of Rupees by simple transactions and just within software maximum risk has involved. Moreover, we don't have facilities available in Cyber-

space to control the things similar with that of physical world. In short, the modality applied in the physical and real world is not applicable in Cyber world. In physical world we can control automobile, machinery, commodity and check it against loss, misuse, theft, and procedure to deal with traditional criminality has its own way of search, arrest etc. But the same procedure is difficult to follow on the networking where criminals are difficult to locate, and even impossible to identify!

ii. Global village: The shrinkage of space, time and territory.

Networking has entirely given a new opportunity for the business has changed the traditional bond with space and time. Via networking, it is possible to access customer worldwide and at any corner. It is not important to have show-rooms, big hoarding on the side by the roads, to have physically located shop so that customers can visit and required to open shop open during market hours. This traditional condition have now changed in the networking where any person can remain available round the clock on the networking and able to access from any corner of the world. The entire networking world is market and customers' connectivity is possible around the globe. E-business on network neither requires a fix location nor binds to fix time schedule. It is truly said that Cyber-world has changed the concept of time, space and location in the sphere of marketing.

But the several issues have been raised due to this changed scenario. First, concerning about the location - the issue can be raised about what rules and regulations that should be made applicable? Because, traditionally, the court is bind by the jurisdictional limit, either pecuniary or territorial while entertaining the briefs arising out of legal disputes. It is statutory limit on court's power. Therefore, court's jurisdiction to take cognizance of dispute is based on the location of the dispute. However, in Cyber-space, it is difficult either, to fix the location of the wrongdoer in several cases, and while in some cases even-though it is possible, he might be sitting in the other corner of the world.

Secondly, the criterion of 'space' applicable in traditional legal system has entirely meaningless in Cyber-space. Cyber-space is full of web pages, without any limitation. Traditionally, law has concerned about the space. In market, rules and regulations are applicable on the basic that where

the shops, showroom, industrial unit is situated and how much space it occupy.

Even in case of dangerous or volatile products are produced and placed far away from the 'living' area. Again, in traditional legal system, it matter that whether the place is 'public' or 'private'. How to judge the valuation? Is it possible to treat it agricultural land or Non-agricultural land? How can we decide the value of 'inches' of land available in Cyber-space? Nevertheless, in Cyber-space how can one decide about it? It needs a serious consideration.

Thirdly, time is important aspect and one of the criterions for many statutory considerations. Time matters, because it is one of the criterions to apply for limitation. In Cyber-space, anybody can remain present for every moment. Again due to electronic-speed, subjected to congestion in network, it is difficult to follow the time-schedule on the Cyber-space that causes difficulties in framing the legal issues in legal disputes in general and offences in particular.

iii. Information that matters in Cyber-space

Information is becoming the lifeblood in Cyber-space. It is easy to circulate and make available within the network. Anybody either consumer or curious net surfer can access to it. One of the utilities of information in networking is its accessibility. The information that is kept in the 'pocket form' in various computers or hubs can be accessed from any corner of the world.

Thus irrespective of the place of net surfer or the location of the information, it can be brought on the screen of the terminal. It is now only make accessibility of information quickly, but make overall system user friendly. The search engines that make the categorization of information websites according to key words for user add maximum utility of Cyber-technology.

Thus information has value on networks. The power of Cyber-technology rest with the information it is capable to provide. Therefore, though misleading, Cyber-technology is seems to be synonyms with information technology. But needless to add, Cyber-technology has much more scope than merely information-distributing machinery. Basically, today Cyber-technology is utilized to shift statistical, mathematical, logical work of workman.

iv. Changing concepts of value, values and valuables

In Cyberspace, there is complete change of the concepts like **value, values** and **valuables**. The **VALUE** of any material has undergone drastic change in Cyber space. Now the size of article is not important. Previously, the automobile is more costly that bi-cycle. But today, the computer is more costly than automobile and the computer program written in few lines are even more costly than computer itself. Therefore, the dimension of value has undergone drastic change in Cyberspace.

In the traditional market there are lot of thing, which is depended upon the relationship of buyer and seller. In past the credit system was existed where words were valuable, reputation of a person had market value (Not his salary or bank account), each person had his different reputation which govern the relationship. Thus traditional market had some developed **VALUES** and these values were respected everywhere. Most of the time, the products were sold because seller, though he would not be the producer of that product, guaranteed about its creditability.

Those days were known for the faith in the seller rather than product. But at present, the Cyber-space has shrunken the world to great extent. There is no value to words, personal reputation, identification or even guaranteed. These words become meaningless. Prior to that, the buyer-seller relationship does extinct with the process, but it continued. Buyer-seller relationship was not like a customer-shopkeeper relations, but there was a social bond strengthening it. However, presently, the selling process is not bound to these considerations and there hardly social relations amongst buyer-seller exist any more. Thus values that were important consideration in past lost its importance in Cyberspace.

Next is a **VALUABLES**. In Cyber-space, the golden article or diamond necklace is not valuable. It is the information, knowledge and programmes that facilitate towards desirable result are valuable than even products. Therefore, the websites providing more facilities, programming that generating better results are more valuable than other things.

Thus, in Cyberspace the terms like values, value and valuables has got different meanings and dimensions.

v. Cyber-space is a departmental store

Today, in the era of globalization, Cyberspace has become just like a departmental store where you can order anything and you will have it! It is just like a complex where you can wander, surf and get everything. At the same time, very less regulating agencies are there which can prevent you. There is no Cyber policing, no traffic rules, no body is watching netizens, despite it even minor can have access pornographic material. Therefore, in this respect, Cyberspace is the entirely a different place where the rules of this offline world do not apply, at least till this moment.

vi. Regulating the competition - The world market is at stake

In Cyberspace is full of competitors. For securing customers, one has to tile hard. Once upon a time, companies had to compete with others in the same city or region, but now they have to compete with companies around the world. With the limitations of geographical boundaries eliminate, competitors that one never dreamt about are suddenly possible. Thus in Cyberspace one has to compete for customers around the globe. Amazon.com is a digital library, not only computers with bookstores in this country, but with books, stores all around the world.

vii. Not 'Global village, but Global den'.

Marshal Mcluhan in his famous book *'Understanding Media'* had said that due to modern means of communications, the world is reduced to a 'Global village'. But due to computer revolution of 20th century and information technology, the world is again reduced to 'Global den' where you can access it sitting in the closed room. Thus by sitting in front of computer in bedroom, one can make transactions, deposit money, withdraw & transfer it from bank account, give the advertisement of product which can be circulated all over the world, and also can communicate with your relative residing in opposite part of the globe! Thus, today, the fashionable concept like 'Global village' has become outdated and replaced by 'Global den'!

It is crystal clear from the above discussion that under the process of globalization national boundaries are vanishing away. Particularly in Cyber space where the technology does not respect the geographical barriers, the fate of security and safety aspect are always at stake. The threat will be bound to increase with the increasing use of technology and with process of speedy automation;

conversion of each data and everything into electronic form will have no alternatives. Therefore, it is high time to devote a considerable time for security the Cyber space. Controlling the movement is not a easy task, but we have to do it! There is no alternatives for it!

viii. Information Technology: the life blood of modern era

The last decade of the twentieth century witnessed an exciting and exhaustive explosion in the arena of information amplification. Generally information means the data that is put into a meaningful and useful context.[xlv] From time immemorial man has been using certain signals to amplify the information such as bonfires, semaphores, drumbeats, etc. All served as signals of some kind of information. Later it became an accepted fact that information is the vital resource in developmental activities. As a result of this, more and more devices were introduced such as telecommunication, mass media, computers and internet.[xlvi]

New communication systems and digital technology have made dramatic changes in the way of living. A revolution is occurring in the way people transact business. Businesses and consumers are increasingly using computers to create, transmit and store information in the electronic form instead of traditional paper documents.[xlvii] This is an age of Information Technology. The rule of 'survival of fittest'[xlviii] remains unchanged, but its definitional rider-cum-dimensions differ in present context. Today, one can remain fit and sustain in competition not with the help of muscle power or weapons, but only with the help of information. Today only information can ensure the survival. Such is the essentiality of information. It is information that comes first, and then knowledge follows. Therefore, information is pre-requisite condition for knowledge. Thus, despite it is old saying that 'knowledge is power', but without information, knowledge loss its relevance. Apparently, the technology that generates, stimulate, diffuse and distribute information fast is best suited in present world. Commenting on the importance of information, the Standing Committee on Science & Technology, Environment & Forests for examination and Report while referring 79th Report on the Information Technology Bill, 1999[xlix], stated as follows :-

In the present day world, it has been the electronics and now the Information Technology (IT), which influence our life the most. There is

hardly any area of human endeavour where electronic gadgets have not reached. There is barely any industry that does not depend, for its efficiency and productivity, on the application of electronics in its different manifestations. Technology has emerged as the vehicle of rapid change in the work culture and the way mankind communicates in the century. India has been no exception to this phenomenon. Whether in the field of telecommunications, roads, ports or air travel, the hallmark has been more efficient and cost effective technology. Thus from slow-moving majestic automobiles the country has moved to smart and fast technologies, which have given us much, more advanced vehicles, coal guzzling steam locomotives, which have been replaced by electric traction engines.[i]

This is clearly evidenced that world is now moving through the transition stage and soon there will be a complete transformation. The tiny electrons have capability to change entire world. Evidently, law has taken the cognizance and the national legal machinery is warming up to get ready to fight with Cyber criminality. In fact, it is moral as well as legal duty of 'LAW' itself to react in time so as not to loss its relevance with social pace.

CONCLUSION

It is crystal clear from above discussion that Cyber criminality is spreading with leaps and bounds whether able to get timely legal response or not. Unfortunately, the difference pace of development of Cyber technology with controlling mechanism lead to imbalance in execution and implementation. The wide gap of technological understanding between Cyber criminals and legal executions are making problem worst. The legal response by the world community is at very superficial level, but situation is alarming and need serious attention. The potential capacity these electrons having within them to destroy the world are beyond imagination. We have already witnessed an example of 'the power of electrons' in the form of 'Uranium Bomb' that had caused massive massacre at Hiroshima and Nagasaki in August 1945.[ii] Now the same electron based technology is being used in Information dissemination.

Secondly, the globalization has made the issue more complicated and apprehending. Now with addition of 'Silicon', the entire world transcend to 'Electronic conductivity' facilitating free flow of information. There is maximum thrust on the technology for its use upto its maximum. This makes use of Computer Technology more crucial and Cyber crime inevitable. Globalization in fact has provided a launching pad for Computer Technology. Today, technology is globally consummated but locally governed. If global consumption of technology cannot be restricted, it is governance, which should be upgraded to global level. In nutshell, the threat should be timely estimated, and effectively tackle.

Thirdly, beside food, shelter & clothes, Information has become the fourth index of basic needs for survival, not only for individual, but every society and nation. In fact, world has realized that information is pre-requisite need for knowledge, and knowledge is power. To be remained equipped with information is need of an hour and necessary for survival.

Thus to be remained powerful, one should be equipped with information. Therefore, there is growing necessity has been felt for fast, speedy, easily capable of manipulation, storage technology become non-option and when computer were invented, world community visualize a future of information into technology.

Thus Information Technology and Globalization lead superhighway on the path of development and progress. Now Cyber criminality has now become non-separable part and if global consensus is in favour adaptation of Globalization & Information Technology, Cyber criminality has to be accepted as non-optional phenomenon as an integral part of it. Cyber criminality is now as real as Globalization and Information Technology, and there is hardly any way out. Only way out is to overcome the threat pose by Cyber Criminality, face it without ignoring it!

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[iv] Indian Penal Code, 1860 Section 40.

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[vi] S. 2 (n) of Criminal Procedure Code, 1973. See also General Clause Act, 1897 S. 3 (38)

[vii] Infra 5

[viii] Infra 4, Section 120B of IPC, 1860.

[ix] Infra 4 S. 292-294 of IPC, 1860..

[x] Infra 4, S. 378 of IPC, 1860.

[xi] Infra 4, S. 383 of IPC, 1860.

[xii] Infra 4, S. 390 of IPC, 1860.

[xiii] Infra 4, S. 405 of IPC, 1860.

[xiv] Infra 4, S. 410 of IPC, 1860.

[xv] Infra 4, S. 415 of IPC, 1860.

[xvi] Infra 4, S. 441 of IPC, 1860.

[xvii] Infra 4, S. 463 of IPC, 1860.

[xviii] Infra 4, S. 499 of IPC, 1860.

[xix] Infra 4, S. 503.

[xx] Art. 20 of the Constitution of India 1950.

[xxi] See, Chapter XI of he Information Technology Act, 2000.

[xxii] Ibid 21, Section 65.

[xxiii] Ibid 21, Section 66.

[xxiv] Ibid 21, Section 67.

[xxv] See http://pgd.iiita.ac.in/index_files/about.htm Article entitled, *'Cyber Law & Information Security',* The Official Website of Indian Institute of Information Technology Allahabad, Accessed on 27 April 2005, 07:44:49 a.m.

[xxvi] Scot, Computer Law Vol. (I) at p. 41. See also, Dr. Farooq Ahmad : Cyber Law in India (Law on Internet), Pioneer Books, Delhi pg. 5

[xxvii] Computer Associate Int, 1, Inc V. Altai, Inc; 982F, 2d 693.696 2nd cir. 1992. See also Dr. Farooq Ahmad : Cyber Law in India (Law on Internet), Pioneer Books, Delhi pg. 5

[xxviii] "Sneakers" A movie by MCA/Universal, 1992. See also Dr. Farooq Ahmad : Cyber Law in India (Law on Internet), Pioneer Books, Delhi pg. 4

[xxix] Dr. Farooq Ahmad : Cyber Law in India (Law on Internet), Pioneer Books, Delhi pg. 5

[xxx] Infra 29, Pg. 5

[xxxi] See, the Article by Jaishree Desai *'ABHASI JAGACH DHOKA'* (Danger of Visual World) in Daily **SAKAL** (Marathi daily Aurangabad Ed. Sunday 15th May, 2005. Pg. 8.

[xxxii] Infra 31.

[xxxiii] A German Jurist and disciple of Savigny, Great profounder of Historical School of Jurisprudence.

[xxxiv] For e.g. Though Criminal Procedure Code, 1973 was come into existing in 1974 when computers were dawning in some of the corner of the work, but no reference has been made about the computer technology.

[xxxv] Infra 29, Pg. 5.

[xxxvi] See, http://www.choike.org/nuevo_eng/informes/2450.html accessed on 22 September 2005, 21:52:07.

[xxxvii] Galanter Marc : Law and Society in Modern India , Oxford University Press pg. 3. Originally appeared in *Languages and Areas: Studies presented to George V. Bobrinskoy (1967).*

[xxxviii] Infra 21, S. 65 & S. 66.

[xxxix] Infra 4.

[xl] Zelermyer William : Legal Reasoning – The Evolutionary Process of Law, Prentice-Hall, Inc., Englewood Cliffs, N.J. 1st ed. 1960 pg. 5.

[xli] Narayan Asit & Thakur L K: Internet Marketing E-Commerce and Cyber Laws, Authorspress Delhi, 1st ed. Pg 1

[xlii] Infra 25.

[xliii] Jain Atul: *Cyber Crime - Issues Threats and Management* Vol. 1, Isha Books Delhi, pg. 27.

[xliv] Gupta Mrs Rohini Suri & Dr. Amrik Singh Sudan : Issues in Globalisation - An article published in book entitled, 'Globalisation and Indian Economy : Issues, Strategies & Perspectives' published by Apratim Publication, Aurangabad pg. 8. Paper presented in the International Seminar on 'Globalisation and Indian Economy' organized by Dept of Commerce, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 11th - 12th Mar 2002.

[xlv] Diwan Parag, & Shammi Kapoor, *Cyber & E-Commerce Laws,* Bharat Publishing House, 2000, p. 1.

[xlvi] Menon Shailaja, Protection of Intellectual Property in Cyber Space, p. 1.

[xlvii] Satya Prasad T.V.R., *Law Relating to Information Technology (Cyber Laws),* Asia Law House, Hyderabad. 1st Edn. Pg. 1.

[xlviii] Rule propounded by Charles Darwin on evolutionary development of species.

[xlix] See, http://rajyasabha.nic.in/book2/reports/science/79report.html Accessed on 22.07.2004

[l] Infra 49.

[li] On 6th Aug, 1945 and 9th Aug, 1945, America dropped thrown a Uranium Bomb on Japan at Hiroshima & Nagasaki. It cost thousand of lifes nearly 6 million. In that process, there was a use of Electron so as in the Cyberspace where electrons are used, only technology differ, basic remain same.

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