

Cyber crime

Mumukshu Balyan

B.COM LLB (H), 5TH Year, Amity Law School, Amity University, Noida, Uttar Pradesh, India

Abstract

As we all know, this is the era at which most of the products are usually made over the online platform, ranging from online transactions to online transactions. As the internet is seen as a global level, everyone can access Internet services from anywhere. Internet technology has been used by some citizens for illicit behaviour such as inappropriate access to the network of others, scandals, etc. Such illegal behaviour or Internet-related offences are referred to as cyber criminals. The term "Cyber Regulation" has been used to prevent or punish cyber criminals. We can define cyber law as part of the legal frameworks struggling to deal with the web, cyberspace, and legal problems. It encompasses a broad area, including many subtopics as well as freedom of expression, Web connectivity and use, and online security or privacy. Typically speaking, it is related to as the system law.

Keywords: connectivity, platform, speaking, Cyber crime

Introduction

Nature has talented people with the power of mind and brain which makes them different from other beings, making them superior among the universe's other living creatures. The advance of human culture ultimately led to the discovery and invention of new ideas from the need to survive to modern luxuries.

Computer and Computer communication rules are web regulations. It does not have to be stated that new systems of communication and digital technology have dramatically modified our way of life. Almost everyone is affected in today's highly digitalized world. In the way men function, a transition is observed. Virtually all shares are dermatologically transacted. Almost all organizations are relying on their computer networks, which store their data in electronic form. Most civilians use e-mails, cellular phones, and text messages. Instead of conventional paper records, businesses and customers gradually use machines to distribute and store information in electronic form. Digital signatures and electronic contracts easily transcend conventional market activities. Upon the advent of the digital era, the business witnessed a revolutionary jump in efficiency, quantity, and time. This is modernizing the way of life. Technology is already increasing and evolving. There is a curiosity in the human imagination to learn and to understand that is the hallmark of today's scientific and technical progress.

Science as a branch of information is an analysis of the natural world by examination, defining, explaining, testing and systematic work and a logical drive to discover reality outside ordinary concepts. It has brought human capabilities to new dimensions. The growth of human civilization has played a major role in science and technology. Technology may be defined precisely in the application of science and knowledge or in any way that such knowledge is achieved or applied to any particular task using a technical process. It is, therefore, human creativity that requires knowledge to broaden human capabilities or to satisfy the newly evolving needs and desires of human beings. It is also evident that

development creates improvements in the natural environment by adapting empirical expertise to human material comforts. As such, the planet has overwhelmingly gained from the advancement of science and technology with all the comforts of existence. Science directly or indirectly affects human activities in today's world. Technology and technical advances are the products of the discovery of radio, internet, television, supercomputers, etc., and many other modern structures. We now live in the digital age which plays a major role in our daily lives.

History of Cybercrime in Brief

The first cyber-attacks reported was in 1820. This is not a surprising estimation that the abacus, believed to be a primitive part of a machine, has been around since 3500 B.C. Japan, China, and Asia. The era of modern computing then started with the electronic system of Charles Babbage ^[1].

In 1820, the loom was produced by Joseph-Marie Jacquard, a textile maker in France. This framework has made it possible to repeat a sequence of moves in special fabric weaving. This led to concern among the workers of Jacquard that their traditional jobs and survival would be endangered. They performed acts of Jacquard vandalism by refusing to use the new inventions. It is the first cyber-crime to be published.

Computers have come an exceptionally long way today, with websites and nano-computers empowering each particle in a carton of water to become a computer willing to perform one billion operations per second.

Cybercrime is an evil embedded in the increasing reliance of machines on daily life. In per day and era where anything works on machines, from microwave ovens and refrigerators to nuclear power stations. Cybercrime has taken on sinister implications. In the past, big cybercrimes included hack off the Citibank. An illegal payment of US

¹ <http://www.beza.com/cybercrime/history.htm>, retrieved on 12 August, 2016 at 1:10 pm

\$10 million from the bank to a bank account in Switzerland. The attack was committed by a Russian hacker community headed by renowned hacker Vladimir Kevin. The group consisted of the security systems of the Bank. Vladimir allegedly used his workplace machine at AO Saturn, a consultancy company headquartered in St. Petersburg, Russia, to break into Citibank servers. He was eventually arrested on his way to Switzerland at the airfield in Heathrow.

Cybercrime

Crimes that exist on or use the Internet network are known as cybercrimes. That contains an array of illegal practices. The word 'cybercrime' is a paragliding concept in which multiple criminal acts may be classified. Due to the extreme internet's confidential existence, there are several alarming practices taking place in the cyberspace that can enable the offenders to engage in different forms of illegal acts called cybercrimes.

The arsenal with which cyber-crimes are committed is software, and therefore the survivors of such offences are often technologically skilled professionals who have extensive knowledge of the wireless and cellular applications. A few of the evolving cyber-crimes include e-mail, cyber-terrorism, cyber-stalking, e-mail spoofing, internet-pornography, dropping bombs, cyber defamation, symmetric viruses, worms, etc. Many conventional crimes can also be cybercrimes if engaged on or across the web. The examples are stealing, mischief; deception, fraud, misrepresentation, adultery, coercion, violence etc., both are subject to punishment under the Indian penal code.

As far as the exact concept of cybercrime is concerned, it has not yet been specified by legislation or regulation. The concept of cybercrime does not even contain the Information Technology Act, 2000. Cybercrimes, however, may be assumed to be exactly those forms of crime in which machines are either an item or an act of behaviour that constitutes a felony, or both^[2]. Consequently, any operation that utilizes computers as an weapon, as a target or as a way of conducting more crime comes under the definition of cybercrime.

The above definition of cybercrime clearly indicates that a very thin line of demarcation exists between conventional crime and cybercrime. The sine qua non for cybercrime is that the virtual cyber medium, i.e. the computer, should be involved at any stage.

The simple and comprehensive definition of cybercrime should be "unlawful activities of which the computer is either an actor"^[3] or a victim^[4] or both." Cybercrimes are also a offense against a machine, a machine device or a computer network.

Cybercrime as described globally by the United Nations Congress on Cyber Crime Prevention and Care of Offenders^[5] comprises the following two categories:

1. Cybercrime, in a specific sense, is a cybercrime and includes any illegal conduct directed at it. at the protection of cyber systems and the data collected by them by electronic operations.
2. Cybercrime, in a wider context, includes all cyber-related offenses involving any criminal activity carried out by or in connection with a system or network, which include crimes such as unlawful property and the drive train or application of information through a computer system or network.

In the Indian sense, cybercrime can be defined as a general and wilful ignorance action or default that adversely affects an organization or a person's computer systems and makes it criminal under the Information Technology Act, 2000 or Indian Penal Code.

Cybercrimes can also include traditional criminal acts such as burglary, extortion, forgery, vandalism, slander, etc., they are both prohibited under the Indian Penal Code. In reality, the abuse of software, machines or the Web has contributed to a variety of breaches which were illegal due to the advent of social media, but which were illegal under the Information Technology Act, 2000. It will also not be right to claim that offences committed exclusively under the IT Act are regarded as 'computer offenses' in so far as the Indian Penal Code still includes a range of such offences as e-mail spoofing, offensive e-mails, computer defamation, etc^[6].

Many officials claim that a particular definition of cybercrime is a misnomer since there is no accepted legislative concept of this crime. We claim that the idea of cybercrime is not fundamentally different from that of a traditional crime, since both require cheating or omitting, which leads to violation of the law and means retribution.

The term cybercrime typically refers to a wide variety of illegal acts directly linked to computers and networks in telecommunications facilitating their use. Nonetheless, it is widely agreed that the term "cybercrime" encompasses any illegal act perpetrated using or against computer technologies within it. Therefore, it should be evident that the emphasis has so far been on the practical concept of cybercrime rather than on a generally acceptable legal interpretation.

Reasons for Cyber Crimes

Until undertaking on the different ways of cybercrime and the ways in which they are perpetrated, it would be fitting to focus on the key reasons for an exponential increase in cybercrime in recent years^[7]. The key explanation for this can be quickly mentioned: -

1. The computer has distinctive properties in maintaining the information in a small space. This enhances awareness to be more easily retrieved and extracted via physical or virtual medium.
2. Computers are easy to access and therefore illegal access can be quickly bypassed using advanced cyberspace technology.
3. The machines operate on sophisticated operating systems consisting of millions of instructions. The cyber offenders exploit the fallibility of the human

² Pawan Duggal: Cybercrime (2003) p. 17

³ Cybercrimes which involve computer as a tool are usually modification of conventional crimes ' such as drug-trafficking, on-line gambling, financial fraud or forgery, cyber defamation, pornography, intellectual property crimes, cyber stalking, spoofing etc.

⁴ Cybercrimes where computer is a target include sophisticated illegal activities such as unauthorised access to networks or computer systems, e-mail bombing, Trojan attacks, data diddling, denial of service attack, Internet time theft, logic bombs, virus or worm attacks.

⁵ Tenth U.N. Congress on Prevention of Crime & Treatment of Offenders was held in Vienna on April 10-17, 2000.

⁶ Suri R.K. & Chhabra T.N: Cybercrime (Reprint, 2003) p. 45

⁷ Prof. N.V.Paranjape, 'Criminology and penology with Victimology' Cental Law Publication, 16th edition, 2014, page -165.

- mind and penetrate the computer system.
4. Some of the operating system's basic features are the evidence is lost with no time. Criminals take into consideration the importance of obstructing prosecutions long after the offense was conducted and make it more complicated for investigating authorities to collect sufficient information and convict the offender.
 5. The smallest error on the part of the computer consumer in protecting the protection of the computer network will have disastrous repercussions because the cyber thief will obtain unlawful access and illicit control of the computer system in order to accomplish his evil scheme.

Cyber Criminals

The cyber offenders form specific groups/categories. Such distinction can be warranted depending on the topic they have in mind^[8]. The above are the Cyber Criminals group:

1. Children and Adolescents between the age group of 6-8 years

Easy explanation for this form of trend of criminal conduct in children is shown mainly because of the inquisitiveness in learning and discovering stuff. Another cognizant motive could be to prove outstanding among other kids in their party. Often the cause can also be psychological. The Bal Bharti (Delhi) case, for example, was the product of the criminal's abuse of his friends.

2. Organized Hacker

In the most part, these types of hackers are working together to achieve those goals. The goal might be to appease their political philosophy, fundamentalism and so on. Pakistanis are deemed the world's greatest hackers. They primarily target Indian government sites to achieve their political goals. NASA and Windows are both under pressure from hackers.

3. Professional Hackers/Crackers

Their design is motivated by their income value. These kinds of hackers are mainly used to encrypt rivals' sites and accurately, dependable, and valuable information. They are often used to break the employer's scheme, effectively as a tool to make things easier by finding loopholes.

4. Discontented Employee

The category includes all persons who have either been rejected by their employer or who are frustrated with their insurer. They usually hack their employee's system to revenge.

Classification of Cybercrime

The main problem confronting the legislation is keeping up with technology. When thinking of Internet-related offences, certain typical offenses, such as theft, should be regulated by current technologically based criminal codes while slander is perpetrated through the internet. Those are offences containing many of the characteristics of offline offenses; the main exception is that their committee uses the internet as support. The electronic offences have been categorized into the following category for ease.

- Conventional computer crimes involve cyber bullying, program forgery, cyber harassment, web stalking or assault, internet theft, financial violations, online gambling, and illegal drug sales.

- Crimes on computers such as web hacking or illegal users, service denial.
- Crimes related to data devastation or modification: viruses or worms or Trojan or logic bomb, internet hour theft, data dodging, salami attacks, steganography, etc.
- Electronic stamped crimes: spamming by attack.

Cyber Terrorism

To date, the most disturbing element of the crimes perpetrated via the Internet and other media has been those of attempts to jeopardize the protection and stability of the state or its ties with other nations, or the harmony and tranquillity of the common man or national security or public order and morality; and of violence in community or portions of it, to mention just a handful. Terrorism committed through amenities made accessible to the cyber world is what can be called cyber terrorism. ITAA, 2008, tried intricately to explain this satanic term by incorporating section 66 F.

In a nutshell, cyber terrorism is an act that injures India's security, the lives of its citizens or their properties, and international relations; by obtaining, refusing, or contaminating knowledge in a digital network, and utilizing it. Anyone engaging or attempting to commit cybercrime shall be punished by imprisonment and may amount to life imprisonment. It is possibly because cybercrime, as described in the Act, is likely to draw both Indian and foreign nationals into its net; and late international developments seem to suggest an apparent abhorrence of the death penalty. Accordingly, the offer of a death sentence to cyberterrorists will only weaken the chances of its implementation, especially for those foreign nationals who do not approve of the death penalty under domestic law^[9].

Challenges of Cybercrime

The global expansion of the Internet and the network has led to a new type of crime widely known as cybercrime. Financial and protection processes are often influenced by the impact of these crimes., as the alarmingly growing aspects of extreme militant computer theft and terrorist operations are controlling the infrastructure of the country and presenting a challenge to national stability that is threatening its internal and international peace. Cyber law studies by Mc Connel International (USA) concluded that 'cyber criminals worldwide are lurking on the Internet as a threat to corporate financial health and an emerging threat to national security. Intellectual property misuse and stealing of proprietary data and computerized documents to corporations, firms, banks, financial organizations, etc. Cybercrime knows no geographic boundaries. This has proven to be a boom for the delinquents who carry out illegal internet activities There is no risk of being recognized or found. The inability of law enforcement officials to know the actual functioning of the Internet further exacerbates the issue. Outstanding effort from cybercrime shall be classified as:

- Legal issues that depend on the legal standards to be included as a method for prosecuting and controlling computer crimes.
- Technical risks require a well-trained and very well-equipped coherency of researchers who function and

⁸ Parthasarthi Pati, Cyber Crime, 2003

⁹ Dr. J.P. Mishra "An Introduction to Cyber Law", Central Law Publication, 2nd ed., 2014

- synchronize at national and international level.
- Technological barriers that obstruct the attempts of law enforcement authorities to apprehend and convict cyber offenders.
- In cases of cybercrime involving multiple jurisdictions there is no criterion for deciding which country is competent to deal with such cases
- Lack of regional cyber-crime cooperation.
- National approach to international or transnational criminal activity.
- Lack of regulatory uniformity at national level.

The global viewpoint of cybercrime prevention and control legislation makes it evident that the increasing danger affects the countries all over the world. In the Indian setting, despite the fact that the Information Technology Act, 2000 has been instituted as a thorough law to manage digital offenses, much of the time it has no pertinence. Taking a gander at the provincial parts of these violations and jurisdictional issues inside nations just as the fluctuation of their digital principles, without successful all-inclusive digital enactment, the question of online transactions and responsibility for activities carried out in cyberspace remains hazy^[10] and unclear.

Cyber Laws: A New Beginning

Cyberspace is an emerging digital medium, and requires a set of laws to regulate cyberspace human behavior. The body of those laws can be called cyber laws. Note that the basic goal of cyber laws is to regulate human behavior rather than technology. Cyber regulations are rules that are technologically-intensive, promoting the usage of technologies but not abuse. The idea is to articulate that there is rule of law in cyberspace^[11].

Cyberspace needs cyber-law. Suggesting that cyber laws are intended to simply test human actions in cyberspace will be a misnomer. Any physical act; which is translated into a violation of any a person's right in digital media (cyberspace) would be treated as a violation of cyberspace. Let us not ignore that it is the web and its implementation of technologies that distinguishes cyberspace from the real world. For instance, A, a person with a fraudulent motive uses a computer or computer network to defraud another user, B then in such a situation A. Possibly punishable under cyber law. It was his actions in the physical world that have manifested itself in cyberspace.

Defining Cyber Law

The term "cyber law" encompasses all instances, laws and statutory requirements that concern persons and organizations that regulate entrance into cyberspace, have access to cyberspace, build the equipment and software that enable users to access cyberspace or using their own computers to go 'online' to reach cyberspace.

If one looks at the aforementioned definition, the basic concept of cyber laws revolves around the phrase: 'Cyberspace access.' How should one navigate into cyberspace? The user interface requirement is:

- a. A computer system with a modern facility, a landline

- phone and a network service provider Internet hours usage package; or
- b. A multimedia machine with a modem and a internet link from a network service provider^[12].

Without these basic hardware and software tools, cyberspace could not be accessed. Public and private organizations in the form of states, device suppliers and mobile service vendors serve as gatekeepers in cyberspace. Access is granted to those who have the necessary tools to access cyberspace. Clicking a mouse or punching keystrokes will open the cyberspace arc gates for users. It's just a 'click-of-a-mouse' that distinguishes an person from physical space to cyberspace. Any illegal, wrongful or dishonest act committed in cyberspace would be covered by the provisions of cyber law. Nonetheless, cyber law will expand its authority to both man and machine (computer) and thereby legitimately connect both people and computers to cyberspace^[13].

Building Blocks of Cyber Law

Cyber law is a new branch of law and is growing very quickly. It is important that one is acquainted with the three fundamental building blocks of internet law, including computer law:

a. Netizens

Cyber regulation adopted an extremely critical principle to netizens. Who are they, huh? Which country do they belong to? Are they recognized as citizens by the Constitution of their country? Will they have any human rights? Do they have fundamental duties, too?

A Netizen is a World Wide Web (Internet) inhabitant. In the Indian setting, even though the Information Technology Act, 2000 has been instituted as a thorough law to manage digital offenses, much of the time it has no pertinence. Taking a gander at the provincial parts of these violations and jurisdictional issues inside nations just as the fluctuation of their digital principles, without successful all-inclusive digital enactment. This acknowledges no man-made or territorial borders. There's no limit to what a netizen will achieve. The most interesting aspect of being a netizen is that he could be an anonymous, nameless and faceless person if he wants to, and still can, engage in all kinds of activities.

A netizen differs from a citizen in that a netizen, unlike a citizen, has no constitutional guarantees. No Constitution acknowledges netizens as residents and gives them civil privileges and duties. The constitution of a nation shall denote a particular geographical region. It's meant or meant to be the people who reside within that geographical area. Netizens, the commuter of modern highways, are essentially nameless, faceless nomads who traverse the globe for convenience. Yet one does not ignore that in cyberspace, netizens live, humans may not, and of these netizens, cyber laws have come into being.

b. Cyberspace

Cyber law is a cyber-space law. But cyber laws should not only govern whatever is performed in cyberspace alone. As it is impossible to distinguish between real space and cyberspace, it is only appropriate for cyberspace to contain events that have existed in physical space only previous to

¹⁰ Jim Puzanghere: US law Maker Clainouring to regulate Internet, San Jose Mercury News, April 9, 1999.

¹¹ Vakul Sharma "Introduction to the Cyber World and Cyber Law ", pages no 6-19.

¹² Id at 8.

¹³ Ibid.

cyberspace entry^[14].

Cyberspace is a crucial building block of computer regulation. In reality, one of the most significant facets of cyber law is to serve as a link between physical space and cyberspace in order to control the interaction between man and machine. Cyberspace is, in a sense, a man-made computer universe that reshapes itself regularly. Is the question whether it should be regulated by a physical set of laws already in existence or whether it should be regulated by a new set of laws? This is important to remember that the current cyber rules are an extension of the existing rules of cyberspace. Those are the 'analogue-seeking' rules. Of example, because there is a contract law between the consumer and the seller in the real universe, the same contract law will be taken into consideration as there is e-commerce between the consumer and the seller in the online market place.

Cyber space is linked to the physical environment by what is technically known as partial space, which enables people to see what is inside it. They can be one way, like television, two-way, like phone, or multi-way, like the internet. Briefly explained cyberspace may be defined as a virtual colleague where the world's knowledge services come together without being seen or sensed^[15].

c. Technology

Cyber laws are technology-intensive laws. They're all about technology and its applications. Cyber Laws set criteria for agreed human conduct in cyberspace.

There is actually a two-technology law school: one is named Technology Related School and the other is Technology Neutral Court. The question is what type of regulations will be introduced, and why? Technology Specific School argues that only one set of technology or technology standards should be recognized by law. In other words, the law treats other standards as illegal, non-binding and therefore not permissible. The major benefit of this school is that it is creating a single technology platform for the entire society. The main drawback of this school is that it kills technological advancements and helps to create a monopoly company that is bad for the society.

Technology Neutral Education believes that the legislation will stay impartial when it comes to providing equal consideration to some norms of science or technology. It treats all technology or technology standards in the same way. The law does not discriminate between technologies. The main advantage of this school is that it helps to provide the community with efficient and useful technology.

The main drawback of this school is that it creates multiple technology platforms and may increase the costs of technology assimilation for the entire community^[16].

It is necessary to note that both innovation-specific legislation and technology-neutral legislation will coexist at any given time. It is also seen that industrialized nations with a larger technology consumer base have a plurality of emerging innovations, whereas developing regions with a smaller technology user base have a single basic development framework to continue from^[17]. The theory is that technology is at a disadvantage in a developing world and thus there are limited consumers, while in a industrialized nation there are a vast number of users and

there is a technical sophistication and thus a multiplicity of technology channels. For example, technology-related legislation only gives legal status to digital signatures generated using unique technologies. Digital signatures generated using some other technologies not required by law will be deemed invalid. These limits will not be enforced under a technology-neutral regulation system. Digital Signatures or (Electronic Signatures) generated by any technologies will be welcome.

In India, we are pursuing a development policy. According to the law (Information Technology Act, 2000), digital signatures using the prescribed asymmetric cryptosystem standard are considered legally valid. The usage of some other form will make the digital signature null. Before this Act came into effect, the usage of technology was comparatively small, however with the passing of time in India technological maturities have risen, and this is why the latest Information Technology (Amendment) Bill, 2006 supports migration to a technology-neutral system.

Jurisprudence of Indian Cyber Law

In the Indian setting, even though the Information Technology Act, 2000 has been instituted as a thorough law to manage digital offenses, much of the time it has no pertinence. Taking a gander at the provincial parts of these violations and jurisdictional issues inside nations just as the fluctuation of their digital principles, without successful all-inclusive digital enactment^[18].

The IT Act was changed by the 2002 Negotiable Instruments (Amendments and Miscellaneous Provisions) Act. Which additionally executed the idea of programmed tests and shortened sweeps?

Data Technology (Use of Electronic Documents and Digital Signatures) Rules 2004 set out the legitimate reason for the issuance of records to the State just as for the permit expenses of the State. It likewise accommodates instalment and receipt of charges from government bodies.

The Information Technology (Certifying Authorities) Regulations, 2000 also came into force on the same day. Such Regulations provide for the training, collection, and operation of Certifying Authorities (CAs). Such regulations have set out the basic criteria, protocols and protection practices to be followed by the CA. Similar statutes were revised in 2003, 2004 and 2006 respectively.

The Need for Cyber Jurisprudence

The machine has picked up ubiquity in all aspects of life as the new thousand years starts. This incorporates the utilization of PCs by people associated with the commission of violations. Starting today, machines play a significant situation in almost any violations they have submitted. Each activity taken isn't really a PC wrongdoing, however it means that law requirement needs to turn out to be significantly more PC based just to stay aware of the criminal class.

As indicated by Donn Parker, "Without precedent for mankind's history, PCs and PC advances make it doable to complete an offense and not exclusively to submit it. Wrongdoer may pass a full wrongdoing in programming starting with one then onto the next, so each move can be changed or customized to one's own needs.

The primary recorded cybercrime happened in the year

¹⁴ Supra note 23 at 8

¹⁵ Asian School of Cyber Laws: Fundamental of cyber Law (2005) p. 93.

¹⁶ Ibid.

¹⁷ Supra note 23 at 9.

¹⁸ Rohas Nagpal "7 years of Indian Cyber Law" (e-Book). Page no. 3-5.

1820, the entire time of present-day PC frameworks started with Charles Babbage's scientific motor. We can envision how old the historical backdrop of cybercrime is, or how old it is. Cybercrime is an indecent that has its starting points in the developing reliance on PCs in current society. In a second where anything from microwaves and coolers to atomic force plants is working on machines, cybercrime has grown upsetting repercussions.

Most of what is referred to as cybercrime is a real violation of long-standing criminal law willing to commit using computer systems or communication systems. Computer-based crime issues would never entail the development of a statutory criminal law; instead, they indicate the need for stronger and more efficient forms of foreign collaboration to implement current laws.

At the opposite side, there are current and extreme difficulties raised by ambushes at machines and data systems, for example, malignant interruption, malware spread, and disavowal of administration assaults. Such assaults ought to be successfully precluded any place they may emerge. Simultaneously, it ought to be noticed that occasionally the best method to battle such an ambush is to quickly actualize vital countermeasures to reduce the effect of arranged at this point unsure assurance of information ^[19].

In India, the Information Technology Act, 2000 and the Cyber Security Act, 2015 of the United States manage the heft of digital violations, including electronic source records control, interruption, digital following, digital crouching, information altering, digital diffamation, Trojan attack, digital imitation, web time taking, email ridiculing, email death, and digital psychological oppression, however the reality remains this is required to battle this.

The requirement for new digital statute therefore ingrains the requirement for differentiating the customary criminal law from the PC rules. Around a similar period, it must have the option to handle the association of digital laws that may be pertinent to customary criminal activities, for example, the IT Act 2000, and has additionally called for changes to the IPC, the Stamp Act, the Banking Companies Protection Act, and so on.

That is progressively noteworthy, be that as it may, is that, thinking about the speed and multidimensional development of rising innovation, joined with its exponential usage in for all intents and purposes each region, it is essential and important to be set up to actualize and execute certain laws that are equipped for overseeing potential abnormalities in a significant and careful way.

Notwithstanding disposing of digital hoodlums and killing digital fear mongering, it will be sensible to keep on fighting this is the time of innovations and advancements and to save the creativity of creators and to safeguard their advantages in the cutting edge world, a progressively point by point case law on digital laws should be treated in an increasingly careful way, along these lines accommodating immovability.

This can be accomplished suitably through the consolidated and devoted endeavours of both the legislature and people in general (specialist organizations and end-clients) together. In spite of the fact that the administration endeavours to build up and improve the digital structure, residents will view it as their own property and conform to every single

vital law and conventions to safeguard the holiness of their own web room. While most websites and service providers typically allow the public to exchange accident information, use data and malware detection, direct feedback from the public to enhance functionality and provide real-time monitoring through direct use in cyberspace will prove vital to government, law enforcement agencies and programmers to create an even safer Web.

Information Technology (Certifying Authority)

The 2001 Regulations came into power on 9 July 2001. They accommodate extra specialized principles and methodology to be applied by the CA.

Two significant CA rules have been given. The first is the Guidelines for presenting a permit application to work as a Certifying Authority under the IT Act. These Guidelines were given on 9 July 2001.

Next is the Requirements for the Issuance of Credentials and the Withdrawal of Credential Lists to the Manager of Certifying Authorities for Publication in the National Registry of Digital Certificates. We were discharged on 16 December 2002.

Rules of the Cyber Regulations Appellate Tribunal (Procedure) 2000 additionally went into power on 17 October 2000. These guidelines set out the arrangement and the working of the Cyber Regulations Appellate Tribunal (CRAT) whose essential job is to hear claims against the sets of the Adjudicators The Cyber Regulations Appellate Tribunal (Salary, Allowances and Other Terms and Conditions of Service of the President) Rules 2003 set out pay rates, stipends and different terms and conditions for the President of the Court of Appeal..

Data Technology (Other forces gave on the Cyber Appellate Tribunal by the Civil Court) Rules 2003 furnished the CRAT with some extra powers. On 17 March 2003, the Rules on Information Technology (Qualification and Training of Adjudication Officers and Manner of Handling Enquiry) 2003 were received. Such rules set out the certifications and ability of the Adjudicators, whose essential obligation under the IT Act is to mediate cases, for example, unlawful passage, illicit replicating of records, malware transmission, disavowal of administration ambushes, organize demolition, machine misuse, and so on. These principles likewise accommodate the way and method of examination and arbitration by these officials ^[20].

The enrolment of arbitrating officials to decide the destiny of multi-crore PC wrongdoing cases in India was the result of open intrigue claims by Asian School of Cyber Law (ASCL) graduates. For right around 2 years after the section of the IT Act, the Government had not named the Adjudication Officers or the Cyber Regulations Appellate Tribunal. This provoked ASCL understudies to record a Public Interest Litigation (PIL) in the High Court of Bombay requesting the arrangement of the Adjudication Officers at the earliest opportunity. The High Court of Bombay, in its request for 9 October 2002, guided the Central Government to pronounce the determination of news media adjudicators to inform the news regarding the choices. The Division of the High Court of Mumbai, comprising of Hon'ble Justice A.P. Shah and Hon'ble Justice Ranjana Desai, have mentioned that the Cyber Regulations Appellate Tribunal be framed inside a reasonable course of

¹⁹ Term paper on Cyber jurisprudence: www.assignmentpoint.com:retrived june 28,2016.

²⁰ Supra Note 30 at 4.

events.

Following this, the Central Government gave a request dated 23 March 2003 naming the "Secretary of the Department of Information Technology of every one of the States or Union Territories" of India as Adjudicator Officers.

The Regulations on Information Technology (Security Procedure) 2004 became effective on 29 October 2004. They set down standards on safe computerized marks and secured paper records. The Information Technology (Other Standards) Rules, 2003 are additionally pertinent.

A fundamental request covering the obstructing of sites was discharged on 27 February 2003. The Code Emergency Response Team (CERT-IND) can inform the Department concerning Telecommunications (DOT) to obstruct the site. The Indian Criminal Code (as corrected by the IT Act) punishes various digital wrongdoings. These incorporate imitation of electronic records, digital misrepresentation, annihilation of electronic proof, and so forth. Virtual verification will be gotten and demonstrated under the steady gaze of the court in consistence with the standards of the Indian Evidence Act (as changed by the IT Act). The arrangements of the Banker's Book Evidence Act, as altered by the IT Act, are pertinent on account of bank records. Full arraignment into electronic offenses will be acted in consistence with the guidelines of the Code of Criminal Procedure and the IT Act. The Indian Reserve Bank Act was additionally adjusted by the IT Act ^[21].

Cybercrime: Evolution or Neo-Criminology

Advances of information technologies and the Internet have contributed to a vast range of offenses which have created an ever-increasing incentive for offenders to participate of illicit activity, which computer crimes are no different. In the last quarter of the twentieth century, there were a variety of innovative forms in which cyber-crime offenders find it convenient to break through cyber-crime networks and the internet, which could be viewed as a modern form of white-collar crime. Such offences have global consequences that threaten the national economy and business projects. Crimes are not limited to any specific region or jurisdiction and can be perpetrated within a fraction of a second, involving people that could be thousands of miles away. The unusual characteristic of such neo-crimes is that although the attacker understands what he is doing, the victim can remain totally oblivious or naive without realizing that he or she has been abused by the unknown perpetrator of the crime. This assumes, however, that this modern variation of offenses has presented a significant obstacle to law enforcement authorities and that it is important to establish a neo-criminological method to coping with such Internet crimes. The threats raised by computer-related neo-crimes are enormous. They cannot be adequately handled by existing methods implemented by the police and other law enforcement organizations, so they require a whole different approach focused on current technologies and techniques.

Another issue that needs to be re-considered in the context of cybercrime is that the conventional concept of *mens rea*, which has been an essential ingredient in crime, is hardly applicable to crimes such as hacking, e-mail bombing, spoofing, etc. when committed by adolescents who are generally minors. As a matter of fact, the cyber-crimes

committed by these teenagers are so harmful to society that the damage caused by them is irreparable, yet they remain outside the jurisdiction of criminal law because of their minor age. Such problems also require a neo-criminological solution to the battle against cyber-crime, which is extending its reach with recent advances in digital technology and data science.

Cyber Law – A separate discipline

Cyber law can be described as a cyberspace rule that is a non-physical terrain generated when two or more computers are connected together. Online systems create a cyberspace ^[22] in which computer users can communicate with each other. Considered from this point of view, the word cyber law applies to the legislation on machines, computing networks which cover any actions that take place in relation to knowledge processed, shared or accessed through a computer device ^[23].

The ever-increasing use of computers and the Internet has provided enormous scope for computer abusers to carry out their illegal activities for personal gain, revenge for rivalry or for political or commercial purposes, and for innocent people to become potential victims of their criminal acts. The need for time was therefore a separate law to prevent and control cyber-crime. Deeply responding to cyber-crimes and criminals, many countries have enacted cyber laws that specifically address cyber-crimes, while others have made cyber-crimes punishable under their existing criminal laws. This is scarcely important to clarify that cyberspace does not accept any geographical borders, thus, a individual qualified in electronic operations in India will easily dupe an individual with a bank account in the U.S.A. by moving millions of rupees to another bank in England in no time, with the aid of his laptop and mobile phone ^[24].

Again, ultra-fast connectivity and privacy in cyberspace also enables cyber offenders to stay anonymous and untraceable for crimes perpetrated via virtual networks ^[25]. Other sensitive environments where cyber offenders typically work include infringements of intellectual property rights and the right to privacy, which involve specific security legislation to comply with and arrest such offenders.

Cyber Law in India

There was no special and autonomous cyber law in India prior to the promulgation of the Information Technology Act 2000 ^[26], and all computer related offences were prosecuted under the standard criminal rule, i.e. the Indian Penal Code, 1860. Nevertheless, digital technology developed by data networks has continued to have an influence on any area of culture and government throughout the new millennium. Since increasing reliance on e-commerce and e-governance, a variety of legal concerns related to the usage of machines and Web or remote computing systems, such as infringements of IPR, copyright, freedom of speech, authority, etc., have arisen which could not be remedied by current law, as cyberspace

²² Cyberspace is not restricted to internet alone, but in its wider sense, it includes computers, computer networks, software data etc

²³ Asian School of Cyber Law: Fundamentals of Cyber Law (2005) p. 4.

²⁴ Abdul Kalam: The Law of Cyberspace (Published by Institute of Training and Research, U.S.A.; (2006) p. 12

²⁵ Ibid.

²⁶ The Information Technology Act, 2000 received the assent of the President of India on June 9, 2000 and came into force w.e.f. October 17, 2000, it consists of 94 Sections in 13 Chapters and four Schedules

²¹ Supra Note 30 at p.5

has no territorial limits or physical features of any sort. This posed practical problems for law enforcement agencies in the field of cyberspace transactions for citizens within the country as well as for countries outside the country. While, in basic terms, the Internet consumer is bound to the rules of the State in which he / she resides, this general rule is in question when conflicts are transnational in nature.

It is accurate that, at a period when digital technology was evolving, no one really thought that it might be exploited discreetly by Internet users for illegal activities, but history has proven that the environment of the Internet still has a dark side, giving birth to a whole type of crimes called cybercrime. It is in this sense that the Act on Information Technology was passed by the Indian Parliament. The objectives of the Act as set out in the statement of objects as follows:

“The Act to give lawful assurance to exchanges helped out through electronic information transmission and different types of electronic correspondence, for the most part alluded to as ‘electronic trade,’ which incorporates the utilization of choices to paper-based methods of correspondence and putting away of records, to energize the electronic documenting of documentation with the State, organizations and to additionally correct the Act.”

A simple reading of the Declaration of Artifacts of the Act will show that the Information Technology Act was initially adopted to promote arid e-commerce^[27], which had gathered traction as a consequence of the transition from conventional paper-based electronic management approaches to digital networks. The Preamble of the Act requested:

- a. Ensure legal recognition for e-commerce;
- b. Facilitate the online registration of records with government departments;
- c. amend the Indian Evidence Act, 1872, the Reserve Bank of India Act 1934, Indian Penal Code, 1860, and the Bankers Books Evidence Act, 1891^[28], and
- d. Ensure effective provision of government services by accurate online records^[29]

The Act thereby provides for a legislative process in which to give moral sanctity to all written documents and all operations carried out through electronic means.

It should be noted that the Information Technology Act 2000^[30] enacted by the Parliament is largely based on the Model Law on e-commerce developed by the United Nations Commission on International Trade Policy (UNCITRAL) of which India is a signatory. The activities of the Act in resulting years exposed certain lacunae and intrinsic shortcomings which blocked its smooth activity and were along these lines altered in 2002 and again proposed to be revised by the 2006 Information Technology (Amendment) Bill, which was concluded by Parliament on

24 December 2008 and got the consent of the President of India on 5 February 2009. The change Act means to close the holes in the present law on data innovation so as to make it progressively effective.

Global Concern for a Uniform Cyber Law

Despite concerted attempts on the part of the United Nations to put out robust security legislation that could be universally applied to all countries for the prevention and regulation of computer crimes, the reaction of the Member States has not been quite positive, as there is no common consensus on the topic of monitoring and mitigating such crimes. The obvious reasons for this variation in the approach to cyberspace crime are the differences in the organizational structure of the various legal regimes. While a range of international agreements and treaties have been developed to create a common legal framework for the prevention of borderless cybercrime, such initiatives have not been effective owing to a lack of co-operation and action on the part of the Member States.

Furthermore, since there is no uniformity as to the concerns and sensitivity of countries to cyber-crimes due to variations in their socio-economic and cultural conditions, countries that are not much affected by these crimes are bound to react differently from those that are seriously affected by them. Under these circumstances, it is futile to expect all countries to have a uniform approach to the prevention and control of cybercrime. Maybe that is the key explanation for the absence of meaningful collaboration on the part of various governments to implement universal security regulation that should be universally applied to all countries in the world. Although cyber law has yet to evolve on a global scale, countries all over the world are increasingly aware of the urgency of such legislation as a result of the growth of the Internet, which provides innumerable opportunities for criminals to engage in a variety of criminal activities that have transnational or international implications.

World Trade Organisation (WTO)

Trade - based aspects of protection of intellectual property (TRIPS) have been specifically discussed by the WTO. WTO treaties, such as the General Agreement on Market and Duties (GATT) and the Agreement on Trade - Related Intellectual Property Rights (TRIPS), contend with infringements^[31]. Area 5 of Article 61 of the TRIPS Agreement requires a legal system for the barrier of licensed innovation rights. It expresses that 'Individuals will accommodate criminal strategies and authorizations to be applied in any event in instances of wilful exchange mark imitation or pilfered copyright on a business scale. The cures accessible will incorporate jail or potentially observing fines adequate to guarantee that they are dissuasive as per the degree of punishments applied for wrongdoings of relating gravity. In circumstances where relevant, the cure accessible will likewise include the seizer, seizure and pulverization of the imperfect items and all things considered and executes the common utilization of which has been made. Part States may accommodate criminal strategies and approvals to be applied in different

²⁷ E-commerce refers to transactions out by means of electronic data interchange and other means of electronic communication which involve the use of alternative to paper-based methods of communication and storage of information.

²⁸ Infra Chapter VII.

²⁹ Consequent to the passing of the Information Technology Act, 2000, the Government of India framed rules under the Act for regulating the application and providing guidelines for certifying authorities.

³⁰ The rules made under the Act were called the Information Technology (Certifying Authorities) Rules, 2000 which came into force on October 17, 2000. Another set of rules called the Cyber Regulation Appellate Tribunal (Procedure) Rules, 2000 were also enforced on the same date.

³¹ See Charles C. McMains, "International Intellectual property protection and Emerging Computer Technology: Taking TRIPS on the Information Superhighway", Villanova L. Rev. (1997)

instances of encroachment of licensed innovation rights, specifically where they are carried out eagerly and on a business scale.

With regard to the free flow of data, the WTO discussed privacy concerns. In the GATT agreement, the WTO acknowledged privacy concerns as a justification for restricting the outward flow of data^[32].

World Intellectual Property Organisation (WIPO)

WIPO's purpose is to better secure intellectual property in the world, has taken steps to combat cyber-piracy. WIPO released, as early as 1978, model requirements for the protection of computer programs close, but more extensive, to the protection of copyright. Later, in 1983, the WIPO Group of Experts suggested that neither the special defense system nor the treaties be regarded at that point, but that, if possible, the same would be regarded at a later level.³³ However, a joint assembly of WIPO and UNESCO took place in Geneva in 1985. Most of the participants found computer programs to be works that warrant copyright security and only a limited amount of participants opted for unconditional sui generis security.

The WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) were implemented at a WIPO diplomatic conference in December 1996. These agreements allow for the preservation of copyright to copyright content disseminated through global networks. The Treaty obliges the parties to provide legitimate safeguards against circumvention of technological controls, including the encryption used by authors in relation with both the exercising of their rights and the removal of changing documents, such as some information concerning the works of their author, which are necessary for the protection of their rights.

Conclusion

Cybercrimes stemmed from the development of a computer network. The Internet has become pervasive and omnipresent in the current millennium. It has also taken with it fresh challenges historically unknown to humanity. Across a way, the Internet is analogous to "open seas" where no one regulates it, so it is used by people of all nationalities. The word 'cybercrime' covers a range of illegal activity in cyberspace via global contact and knowledge through the Internet. This is an intrinsic evil embedded in the growing reliance of humanity on machines in modern life, the reason being that computers, though being high-tech devices, are dangerous. This is an intrinsic evil embedded in the growing reliance of humans on computers in modern life, the explanation being that devices, though being high-tech resources, are extremely fragile. Therefore, whether there is a scam or criminal activity involving the usage of a computer, it is a cyber-crime. It is for this reason that 'cybercrime' has been defined as 'an unlawful act in which the computer is either a weapon or a target, or both.'

The threat of cyber-crime is not confined to one or two countries, but the planet as a "technological scorn" faces this gigantic problem. India is no exception to the danger of this system. However, as a mechanism for the detection and regulation of Internet crimes, the Parliament enacted the

Information Technology Act 2000, which came into force on 17 October 2000. The Act categorically defines cyberspace violations such as electronic source document tempering, hacking of computer networks, violation of privacy and secrecy, etc. It is not like there was no law in order to deal with these offences until the bill. The Indian Penal Code, 1860, also included rules for the detection and regulation of computer crimes, but it was not considered to be adequate to cope with all kinds of cyber-crimes. The basic reason is that at the time the Indian Penal Code was introduced, no one knew about the computer or the Internet. Jurisdictional problems that obstruct the effective management of cyber-crime prosecutions are the product of pervasive inter-connectivity between computer networks and support for services such as telecommunications, website distribution, etc. The Authority is, in fact, a legal concept that refers to whether a court has the power to adjudicate, i.e. whether it has personal jurisdiction to enforce a case and municipal control over the location or area where the crime is perpetrated or where the parties involved reside. In the case of a cross-border cyber war or abuse, there is also a matter of law to which the nation concerned may apply.

References

1. Kamal Ahmad: The Law of Cyber-Space (U. N. Institute of Training & Research), 2006.
2. Dr. Amita Verma. Cyber Crimes and Law (Central Law Publications), 2009.
3. SK Bansal. Cyber Crimes (A. P. H. Publishing Corporation, Delhi), 2003.
4. Dr. RK Chaubey. An Introduction to Cyber Crime & Cyber Law (Kamal Law House Kolkata), 2008.
5. Dr. Farooq Ahmad: Cyber Law in India: Law on Internet, 2nd Edition (Pioneer Book Publication, Delhi), 2005.
6. Nandan Kamath. Law Relating to Computers Internet & Commerce, 2nd Edition (Universal Law Publications Co. Delhi), 2000.
7. Rahul Mathan: Law Relating to Computers and Internet (Butterworth, New Delhi), 2000.
8. RC Mishra. Cyber-Crime: Impacts in the New Millennium: Ist Ed. (Author's Press, Delhi), 2002.
9. R. Nagpal: What is Cyber Crime, 2003.
10. BB Nanda, RK Tiwari. Forensic Science in India: A vision for 21st Century (Select Publishers Delhi), 2001.
11. Ashish Pandey. Cyber-Crime - Deviation and Prevention (J.B.A. Publications), 2008.
12. Dr. NV Paranjape. Criminology & Penology: 14th Ed. (Central Law Agency, Allahabad) 2008.

³² Prof. Dr. Ulrich Seiber, Legal Aspect of Computer-Related Crime in the Information society, COMCRIME Study, 1998.000

³³ See Ibid