CHAPTER 36

Cyber Security and Indian Cyber Laws

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Abstract

Security, safety, and privacy are essential for anyone who uses the internet. Cyber security refers to the methods, strategies, and processes used to prevent computers, programs, networks, and data from being hacked, damaged, or accessed without permission. India has laid strong foundations to defend its population from cyber crimes, all while keeping internet users' best interests in mind. Cybercrime is a sort of crime that uses computers or other electronic devices and involves the use of a system (computer) as a target, a tool, or a storage device for evidence of a crime. Many pieces of cyber law, such as the national cyber security policy and IT Act, have shown to be highly effective at keeping unwanted attackers out. Despite India's stringent anti-cybercrime legislation, the country's main issue is a lack of public awareness. Individuals fighting cybercrime should try to predict qualitative and quantitative changes in the underlying materials so that their strategies can be suitably planned to avoid giving hackers an advantage. This paper emphasizes the need of understanding the repercussions of cybercrime while keeping in mind recent activities and providing methods to safeguard an individual and/or an organization from them. This research paper includes a summary of Indian cyber laws, lists the various types of cyber security and cyber-attacks; sheds insight on India's current situation of cyber security.

Keywords: Cyber security, Cyber threats, Cyber crime, Indian cyber laws

Introduction:
The phrase "cyber security" has become a catch-all for the process of preventing every type of cybercrime, from identity theft to the deployment of international digital weapons. "The organization and gathering of
resources, processes, and structures used to defend cyberspace and cyberspace enabled systems from events that misalign de jure from de facto property rights" is how cyber security is defined. We are more vulnerable to cyber attacks than ever due to the rising usage of digital gadgets and the Internet in both our personal and professional life. It is challenging to distinguish between cyberspace and these sectors and to pinpoint the vulnerabilities because of how deeply ingrained cyberspace is throughout all other industrial sectors that enable interconnection. Cyberspace's growing complexity has opened up new economic, social, and political opportunities [1]. Protecting sensitive data and important systems from online threats are known as cyber security. Cyber security measures also referred to as information technology (IT) security, are intended to counter attacks on networked systems and applications, whether those threats come from within or outside of an organization. Cyber security is the defense against harmful attacks by hackers, spammers, and cybercriminals against internet-connected devices and services. Companies employ the procedure to safeguard themselves against phishing scams, ransomware attacks, identity theft, data breaches, and monetary losses [2]

Cyber security is a field that deals with ways to protect systems and services from malicious online actors including spammers, hackers, and cybercriminals. While certain cyber security components are built to launch an assault right away, the majority of modern specialists are more concerned with figuring out how to safeguard all assets, from computers and cell phones to networks and databases, against attacks [3]. Cybersecurity is the process of preventing hostile assaults on internet-connected systems such as computers, servers, mobile devices, electronic systems, networks, and data. Cybersecurity can be divided into two categories: security and cyber. Technology that incorporates systems, networks, programs, and data is referred to as "cyber". The safeguarding of systems, networks, applications, and information is also a concern of security [4]. The protection of computer systems and networks against information disclosure, theft of or damage to their hardware, software, or electronic data, as well as disruption or misdirection of the services they provide, is known as computer security, cybersecurity, or information technology security [5]. The technologies, procedures, and techniques used in cyber security include those that protect networks, data, and computer systems from intrusion [6]. We must categorize cyber security into several subdomains to best explain what it is and how it operates:

**Application security**: Application security refers to the integration of various protections against a variety of threats into the software and services of an organization. To reduce the possibility of unwanted access or manipulation of application resources, this subdomain necessitates cyber security professionals to create secure code, design secure application structures, implement robust data input validation, and more. The goal of application security is to keep software and devices safe against attacks. A hacked application could allow access to the data it was supposed to secure. Security starts throughout the design phase, long before a program or device is deployed.

**Cloud Security**: For businesses that employ cloud service providers like Amazon Web Services, Google, Azure, Rack space, etc., cloud security is concerned with developing safe cloud systems and applications.
Identity Management and Data Security: This sub-domain covers the procedures, protocols, and mechanisms that let the authorization and authentication of authorized users access the information systems of an organization. These procedures entail putting in place strong information storage systems that protect the data while it is in transit or stored on a server or computer. Additionally, this sub-domain employs two-factor or multi-factor authentication techniques more frequently.

Information security: Data integrity and privacy are protected by information security, both in storage and in transport.

Operational security: The processes and decisions for handling and securing data assets are included in operational security. The protocols that dictate how and where data may be kept or exchanged, as well as the permissions users, have while accessing a network, all fall under this umbrella.

Disaster recovery: Disaster recovery and business continuity are terms used to describe how a company reacts in the case of a cyber-security breach or any other catastrophe that results in the loss of operations or data. Disaster recovery policies define how an organization returns operations and information to the same operational capabilities as before the disaster. Business continuity is the plan that an organization uses when it is unable to operate due to a lack of resources.

Mobile Security: As more people rely on mobile devices, mobile security is becoming increasingly important. This subdomain guards against dangers including unauthorized access device loss or theft, malware, viruses, and more for both organizational and individual data kept on portable devices like tablets, smartphones, and laptops. Mobile security also makes use of authentication and training to strengthen security.

Network Security: Hardware and software safeguards that shield the infrastructure and network from interruptions, unauthorized access, and other abuses are referred to as network security. Against a variety of dangers from both inside and outside the business, effective network security safeguards organizational assets.

Disaster Recovery and Business Continuity Planning is concerned with the procedures, monitoring, alerts, and strategies that an organization employs to deal with situations in which harmful activity threatens to disrupt operations or compromise data. Its policies provide that activities must be resumed following a disaster at the same level of efficiency as before the incident.

End-user education address: End-user education addresses the most unpredictably unpredictable aspect of cyber-security: people. By failing to follow appropriate security measures, anyone can unintentionally introduce a virus into an otherwise protected system. It is critical for every organization's security to teach users to delete suspicious email attachments, not plug in unrecognized USB drives, and a variety of other key teachings.

The protocols, monitoring, alarms, and plans that an organization uses to react when hostile behavior threatens to disrupt operations or compromise data are discussed. According to its policies, activities must be resumed following a disaster at the same level of efficiency as before the incident.
**Indian Cyber Laws:**

"Every activity and reaction that takes place in cyberspace has legal and cyber legal implications." The phrase "cyberlaw" refers to legal matters that arise in cyberspace [7]. It is a synthesis of many laws designed to address and overcome the concerns and challenges that humanity faces on the internet every day [8]. Because cybercrime is a subject that is still evolving toward specialization, there is currently no comprehensive regulation in place to address it anywhere around the globe (Paul & Aithal, 2018). However, the Government of India has the Information Technology Act, 2000 in place to govern dangerous acts on the internet that infringe a user's rights [9]. It is possible that provisions of the IPC and the IT Act that criminalize such conduct overlap at times [10][11]. Even with the most compassionate and liberal interpretation, India's existing laws could not be read in the light of emergency cyberspace to embrace all aspects relating to various internet activities [12]. Experience and sound judgment have revealed that interpreting existing laws in the context of evolving cyberspace without establishing new cyber laws will not be without considerable risks and difficulties. As a result, relevant cyber laws must be enacted.

Cyberspace activities had no legal authority or authorization under any of the existing laws. A huge majority of users, for example, use the Internet for email. Even now, email is not considered "legal" in our nation. There is no law in the country that grants email legal status and consequences. In the lack of a formal statute approved by the Parliament, our courts and judges have been hesitant to provide judicial legitimacy to the legality of email. As a result, a need for Cyberlaw has evolved [13].

Laws concerning cyberspace provide legal recognition for electronic documents as well as a framework to facilitate e-filing and e-commerce transactions, as well as a legal framework to prevent and mitigate cybercrime. In a nutshell, cybercrime is any illegal activity in which a computer is used as a tool, a target, or both. Traditional criminal behaviors such as theft, fraud, forgery, defamation, and mischief, all of which are covered under the Indian Penal Code, might be included in cyber crimes. The Information Technology Act of 2000 addresses a variety of new-age offenses that have arisen as a result of computer abuse.

Utilizing a computer to attack other computers is known as using a computer as a target. Ex. Hacking, Virus/Worm attacks, DOS attacks, and so forth. Using a computer to commit crimes in the real world ex. Cyber Terrorism, IPR Violations, Credit Card fraud, EFT fraud, Pornography, and so on are only a few examples.

**Problem Identification**

**Need of the study:** Cyberstalking, bullying, trolling, morphing, and phishing are the most common types of cybercrime in India. However, our current legal system does not protect many of them. As a result, a provision in the Information Technology Act of 2000 must be introduced that contains all rules about the protection of electronic equipment, as well as a clause that focuses on legal backing so that evidence can be utilized in courts. It was discovered that no standard operating procedures have been developed to deal with cybercrime. Officers must be well trained in the development of SOPs and the implementation of created protocols. Another big issue is the absence of officers in cyber cells. As a result, capable officers with
enough knowledge of various cybercrimes as well as the technical expertise of exploiting computer resources, ethical hacking, and so on must be posted.

The lack of standardization in international collaboration has been noted. When cybercrime occurs in another country, the procedure becomes more complicated and various requirements must be followed. Due to cross-border legal difficulties, Foreign Service providers are not as forthcoming during inquiries. It is suggested that legislation governing the decoding of IP addresses for service providers be changed and that all service providers locate their servers in India to track IP addresses for a faster and more thorough investigation. There must be a cross-national probe. To successfully combat cybercrime, a transnational treaty must be inked.

Objectives

● What is cyber security?
● Which are the latest cyber security threats and cybercrime-related cases in India?
● What are the cyber Laws of India?
● How to improve cyber security awareness and cyber laws?

Discussions:

● What is cyber security?

Cyber security is the use of technology, processes, and policies to prevent cyber assaults on systems, networks, programs, devices, and data. Its goal is to limit the risk of cyber assaults and secure systems, networks, and technology from unauthorized use [14]. A cyber or cybersecurity threat is a harmful act that aims to harm data, steal data, or otherwise disrupt digital life. Computer viruses, data breaches, Denial of Service (DoS) attacks, and other attack vectors are examples of cyber dangers [15][16].

● Which are the latest cyber security threats and cybercrime-related cases?

Any illicit conduct involving a computer, device, or network is considered a cybercrime. Cybercrime can be divided into three categories: computer-assisted crimes, offenses in which computers themselves are targets, and offenses in which computers are only incidental to the crime rather than the primary focus.

Common cyber threats: Malware, such as ransomware, botnet software, RATs (remote access Trojans), rootkits, spyware, Trojans, viruses, and worms are examples of common cyber threats. access via remote backdoors. Formjacking is the practice of injecting harmful code into online forms. installing unauthorized bitcoin mining software, or crypto-jacking. Attacks called DDoS (distributed denial-of-service) flood networks, systems, and servers with traffic to take them offline. attacks on the DNS (domain name system), which manipulate the DNS to reroute traffic to malicious websites[17].

Types of cyber threats:
1. **Cybercrime**: Cybercrime refers to individuals or groups who attack systems for monetary gain or to cause disruption.

2. **Cyber-attack**: Politically motivated information collection is common in cyber-attacks.

3. **Cyber terrorism**: The goal of cyber terrorism is to generate panic or dread by undermining electronic systems.

Here are some common methods used to threaten cyber-security:

**Malware**: Malware is a term that refers to malicious software. Malware is software designed by a cybercriminal or hacker to disrupt or damage a legitimate user's computer. It is one of the most common cyber dangers [18]. Malware, which is commonly sent by an unsolicited email attachment or a legitimate-looking download, can be used by cybercriminals to gain money or in politically motivated cyber-attacks.

There are some different types of malware, including:

- **Virus**: A virus that attaches itself to a clean file and spreads throughout a computer system, infecting files with malicious code.

- **Trojans**: A form of malware that masquerades as genuine software. Users are duped into downloading Trojans onto their computers, which then inflict damage or collect data [19].

- **Spyware**: A program that covertly records everything a user performs for hackers to profit from it. Spyware, for example, could record credit card information.

- **Ransomware**: Malware that encrypts a user's files and data and threatens to delete it unless a ransom is paid [20].

- **Adware**: Advertising software that has the potential to propagate malware [21].

- **Botnets**: Cybercriminals employ malware-infected machines on networks to do tasks online without the user's permission [22][23].

- **SQL injection**: An SQL (structured language query) injection is a type of cyber-attack that allows a hacker to take control of a database and steal information from it. Using a malicious SQL query, cybercriminals exploit vulnerabilities in data-driven systems to install malicious code into a database [24]. This provides them with access to the database's sensitive information.

- **Phishing**: When fraudsters send emails that look to be from a reputable company and ask for sensitive information, this is known as phishing [25]. Phishing attacks are frequently used to trick people into divulging personal information such as credit card numbers and passwords [26].

- **Man-in-the-middle attack**: A man-in-the-middle attack is a type of cyber threat in which a hacker intercepts communication between two people to obtain information [27]. On an unsecured WiFi network, for example, an attacker could intercept data passing between the victim's device and the network [28].

**Denial-of-service attack**
A denial-of-service attack occurs when thieves flood a computer system's networks and servers with traffic, preventing it from fulfilling legitimate requests [29]. This makes the system unworkable, prohibiting an organization from doing essential tasks [30].

**Cases related to cyber security and cybercrime in India:**

According to the National Crime Records Bureau (NCRB), India reported 50,035 cybercrimes in 2020, 44,546 in 2019, and 27,248 in 2018, according to NCRB. 4,047 cases of internet banking fraud, 2,160 cases of ATM fraud, 1,194 cases of credit/debit card fraud, and 1,093 cases of OTP fraud were reported in 2020. According to NCRB data, there were also 578 instances of fake news on social media and 972 occurrences of cyberbullying and stalking of women and children [31].

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of cyber-crimes reported across India</th>
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<tbody>
<tr>
<td>2018</td>
<td>27,248</td>
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<tr>
<td>2019</td>
<td>44,546</td>
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<tr>
<td>2020</td>
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**1) SONY.SAMBANDH.COM CASE**

This case is considered the first cybercrime case in India. In this instance, Sony India Private Limited, which operates the NRI-targeting website www.sony-sambandh.com, filed a complaint. After making an online purchase, the service enables NRIs to mail Sony products to their friends and relatives in India. The business agrees to deliver the goods to the designated beneficiaries [32].

In May 2002, someone used Barbara Campa's login information to access the website and place an order for a Sony color television and a cordless phone. She provided the information of her credit card for payment and asked that the item be sent to Arif Azim in Noida. The transaction was completed after the credit card company cleared the payment. The company delivered the materials to Arif Azim following the necessary due diligence and verifying procedures. The business used digital photos to show that Arif Azim had approved the delivery of the product when it was made. The sale was completed at that point, but after an additional 1.5 months, the credit card company notified the business that the transaction had been done without authorization because the true owner had denied making the purchase. The business had complained to the CBI about internet cheating, and the CBI had filed a case under Sections 418, 419, and 420 of the IPC (Indian Penal Code). Following an investigation, Arif Azim was taken into custody. Investigations revealed that Arif Azim had access to the credit card details of an American citizen while working at a call center in Noida, which he then used fraudulently on the business' website. The color television and cordless phone were retrieved by the CBI.
Because the CBI had evidence to support its claims, in this case, the accused confessed to being guilty. Arif Azim had been found guilty by the court under Sections 418, 419, and 420 of the IPC; this was the first instance in which a cybercrime conviction had been made. The court believed that a compassionate approach was necessary because the defendant was a 24-year-old lad and a first-time offender. As a result, the defendant was released by the court after serving a year on probation. Sections 67 and 70 of the IT Act are also used in some cases. In this instance, hackers break into a website and change the home page to a pornographic or offensive one.

2) Andhra Pradesh Tax Case
After detaining the proprietor of the plastics company in Andhra Pradesh, the Vigilance Department found cash totaling Rs. 22 in his home. They requested his evidence of undeclared money. The suspect provided 6,000 vouchers as proof of the deal's validity, however, it was discovered following a meticulous study of the vouchers and the data on his computers that each one had been produced after raids. The suspect had been utilizing phony digital vouchers to display sales data and evade taxes while operating five businesses under the cover of a single corporation. As a result, when department personnel gained access to the suspect's computers, the state's businessman's dubious business practices were exposed.

3) Bazee.com case
The CEO of Bazee.com was imprisoned in December 2004 for simultaneously selling a CD that included obscene material on the internet and in a market in Delhi. Following an intervention by the Mumbai Police and Delhi Police, the CEO was later released on bail.

4) Extortion case experienced at Greater Hyderabad Municipal Corporation (GHMC)
A data entry worker with the GHMC in Hyderabad was apprehended by cybercrime police, along with his sibling, for dishonestly issuing a Property Tax Identification Number (PTIN) for a parcel in Rajendra Nagar. The GHMS website was previously accessed by an outsourcing worker named Jay Chand Velaga, who fraudulently altered the data and provided door numbers and PTINs for property to benefit himself and his brother [33].

5) Mobile Banking Fraud Cases
Mobile banking entails that the bank will have a website via which it may offer its clients practically all of its services [34]. Customers can use bank services including money transfers, recharges, and payments while sitting at a distance using a smartphone or laptop. The usage of this program is growing as a result of how user-friendly it is. Recently, banks that offer mobile banking have had a lot of trouble with their online services due to rising concerns about digital privacy and security [35]. Banks must therefore offer safer and more secure online banking services. Hackers, money-launderers, and identity thieves are concentrating on other routes and developing novel attack types so they can avoid being easily caught by conventional fraud
detection systems. Due to the rise in fraud, bank customers are now using online banking services less frequently [36].

6) Digital Fraud instances
A so-called entrepreneur who defrauded over 7 lakh individuals online under the guise of "Social Trade" was charged with fraud totaling Rs 3700 crore. Aadhar scam of Rs. 1.3 lakh was reported at ICICI Bank as a result of the concern over integrating radar with a bank account. An unauthorized person impersonated a bank employee and tricked bank clients by obtaining their OTP. Aadhar scam warnings had been given to LIC. To deceive LIC customers and steal their money, some con artists create bogus websites [37].

- What are the cyber Laws of India?
Cyber laws refer to the legal issues surrounding the use of communications technology, particularly "cyberspace," i.e. the Internet [38]. It is an intersection of numerous legal topics, including intellectual property, privacy, freedom of expression, and jurisdiction, rather than a unique field of law like property or contract. In essence, cyber law seeks to reconcile the issues posed by human behavior on the Internet with the historical legal framework that governs the physical world.

The Information Technology Act, 2000 (hence referred to as the "IT Act") and the Rules established their makeup of India's legal foundation for cyber law. The primary legislation that addresses numerous Cyber Crimes, associated penalties, intermediary compliance requirements, etc. is the IT Act.

Information Technology Act, 2000
The monitoring, decryption, and information gathering related to digital communications in India are heavily regulated by the Information Technology Act, 2000 (the "IT Act"). The Central Government and the State Governments may give directives for the monitoring, interception, or decryption of any information communicated, received, or stored through a computer resource, according to section 69 of the IT Act. In comparison to the Telegraph Act, Section 69 of the IT Act broadens the grounds for which interception may occur.

Therefore, Section 69 interception of communications is done in the interest of:

- The sovereignty or integrity of India;
- Defense of India;
- Security of India;
- Friendly relations with foreign States;
- Public order;
- Preventing incitement to the commission of any cognizable offense relating to the above; and
- For the investigation of any offense.
The Information Technology Act, 2000 ("IT Act"), which went into effect on October 17, 2000, contains cyber legislation in India. The main purpose of the Act is to provide legal recognition to electronic commerce and to facilitate the filing of electronic records with the Government.

The following Act, Rules, and Regulations are covered under cyber laws:

1. Information Technology Act, 2000
2. Information Technology (Certifying Authorities) Rules, 2000
3. Information Technology (Security Procedure) Rules, 2004
4. Information Technology (Certifying Authority) Regulations, 2001

The IT Act is the salient one, guiding the entire Indian legislation to govern cyber crimes rigorously [39].

Section 43 – (Damage to computer, computer system, etc) Applicable to people who damage the computer systems without permission from the owner. The owner can fully claim compensation for the entire damage in such cases.

Section 43A – (Body corporate failure to protect data)

Section 44(a) – (Failure to furnish document, return or report to the Controller or the Certifying Authority)

Section 44(b) – (Failure to file any return or furnish any information, books, or other documents within the time specified)

Section 44(c) – (Failure to maintain books of account or records)

Section 45 – (Where no penalty has been separately provided)

Section 46 – (Tampering with Computer source documents)

Section 66 - Applicable in case a person is found to dishonestly or fraudulently commit any act referred to in section 43. The imprisonment term in such instances can mount up to three years or a fine of up to Rs. 5 lakh.

Section 66 A- Hacking with Computer systems, Data alteration, etc

Section 66B - Incorporates the punishments for fraudulently receiving stolen communication devices or computers, which confirms a probable three years imprisonment. This term can also be topped by an Rs. 1 lakh fine, depending upon the severity.

Section 66C - This section scrutinizes the identity thefts related to imposter digital signatures, hacking passwords, or other distinctive identification features. If proven guilty, imprisonment of three years might also be backed by Rs.1 lakh fine.

Section 66 D - This section was inserted on-demand, focusing on punishing cheaters doing impersonation using computer resources.

Section 66 E-Publishing obscene images

Section 66 F - Cyber terrorism

Section 67 - Publishes or transmits unwanted material

Section 67 A - Publishes or transmits sexually explicit

Section 67 B – Abusing Children Online

Section 67 C - Preservation of information by the intermediary

Section 70 - Unauthorized access to the protected system
Section 71 - Misrepresentation to the Controller or the Certifying Authority for obtaining a license or Electronic Signature Certificate
Section 72 - Breach of Confidentiality and Privacy
Section 73 & 74 - Publishing false digital signature certificates

- **How to improve cyber security and cyber laws awareness among the people?**

The advancement of information and communication technologies is increasing rapidly. As a result, the number of Internet users has skyrocketed. Most users, on the other hand, are unaware of how critical it is to maintain personal data privacy on the Internet, especially as technology advances. Furthermore, consumers have come across a variety of risks related to the Internet, but they may not be aware of them. As a result, determining the risk associated with user behavior is critical [40].

Government agencies and the commercial sector have both committed substantial resources to ensure data security [41]. However, technology alone will not be enough to fix the problem because humans are the primary target of cyberattacks, and this is frequently overlooked. As a result, an information security policy must be established to ensure the security of information and assets by providing an operational framework in addition to laws, regulations, and best practices for the proper use of information technology [42]. There are still cyber incidents even when training programs are in place; that is, training programs may not be effective enough to tackle the problem of cyberattacks [43].

**Recommendations:**

For a solid cyber security policy to be successful, every corporation needs to train its employees about cyber security, corporate regulations, and incident reporting. The finest technology measures may be breached by staff members who engage in negligent or malevolent behavior, costing a lot of money in security breaches.

To decrease security infractions, it is helpful to provide workers with security training and awareness through seminars, lectures, and online courses. Update your operating system and software to take advantage of the most recent security patches. This is the most common safety precaution. Using antivirus software to identify and get rid of undesirable threats from your device is also helpful. To ensure the highest level of safety, this software is constantly updated. To identify security issues early in a secure environment, every firm makes sure to conduct regular security inspections of all software and networks. Application and network penetration testing, source code reviews, architecture design reviews, and red team evaluations are a few common types of security reviews. Furthermore, enterprises should prioritize and address security vulnerabilities as soon as they are found.

It is advised to always use lengthy passwords with numerous letter and symbol combinations. It ensures that the passwords are difficult to guess. Cyber security professionals always warn against opening or clicking email attachments from unknown senders or unfamiliar websites because they could be malware-infected. Additionally, you should be cautioned against using unsecured networks because they put you at risk for man-in-the-middle assaults. Every firm needs to regularly back up its data to prevent sensitive information
from being lost or recovered after a security breach. Backups can also assist in preserving data integrity during cyber attacks like SQL injections, phishing, and ransomware.

To summarize, while a crime-free society is ideal and merely a dream, there should be a continuing effort to keep criminalities at a minimum by the application of rules. Crime based on electronic law-breaking is expected to increase, especially in a society that is becoming increasingly reliant on technology, and lawmakers will have to go the extra mile to keep impostors at bay. Technology is always a two-edged sword that may be utilized for both good and evil purposes. Steganography, Trojan Horses, Scavenging (and even Dos or DDos) are all technologies that are not crimes in and of themselves, but when they fall into the wrong hands with the purpose to exploit or misuse them, they fall under the category of cyber-crime and become serious offenses.

Now, this is the time for governments around the world, including India, to understand that both emerging and developed countries would benefit from a secure cyberspace. Governments urgently need to implement well-developed cyber security policies in light of the fast expanding risks to national security in cyberspace. The national cyber security policy should include education, research and development, and training in cyber security.

**Conclusion:**

In recent years, numerous cyber security challenges have been exacerbated by the growth and spread of new technology. The human race now faces serious challenges from cyber security. Cybercrime prevention is essential for a nation's social, cultural, and security aspects. In this essay, in-depth the characteristics of cyberspace and defined cyber security in terms of its global requirements have been discussed. According to important data, India ranks third in the world for internet usage and also faces a cyber security issue. The best defense against cyber risks is a combination of cyber security measures and educated and informed users. Starting small and concentrating on the most important assets is always an option. As the Cyber Security program develops, scaling the efforts is then possible. The only way to combat harmful threats and attacks is to allow security programs to develop so they can take on the most recent and emerging dangers head-on or, at the very least, stop them from succeeding in the first place.

Cybercrime is punished in India under vague or obsolete rules, owing to the country's fragmented legal landscape. Due to its ambiguous character, entities are frequently unable to derive normative guidance from the often bewildering tapestry of regulations, resulting in inefficient implementation.

For the growth of India's cyber security regime, a comprehensive and instructive cyber security law, backed by specialist regulation on an as-needed basis, is critical. Otherwise, judges, enforcement agencies, and regulators will continue to try to reshape old legislation in unforeseen ways while attempting to address many of the constantly emerging cyber security challenges.

As a result, rulers and lawmakers must work hard to guarantee that technology grows healthily and is used for legal and ethical economic progress rather than illegal behavior. The three stakeholders, namely the rulers, regulators, lawmakers, and agents, should be responsible for it.
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Holambe, S.N., *supra* note 6, at 1255.


*Id.*


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Article 5(1) of General Data Protection Regulation, 2016.

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Article 57 of General Data Protection Regulation, 2016.
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X xv Personal Data Protection Bill, 2019, § 3(14), No. 373 Bills of Parliament, 2019 (India).
Personal Data Protection Bill, 2019, § 3(15), No. 373 Bills of Parliament, 2019 (India).
The term "Superintendence" is not defined in law. The Supreme Court construed the term in its decision in Writ Petition (Criminal) Nos. 340-343 of 1993, pp. 66-73. The Supreme Court declined to accept a wide interpretation of the term "superintendence." According to the Supreme Court's understanding, the superintendence was broad in nature and would not entail the government providing directives or directing police investigations. Previously, the NPC considered the phrase to mean that the State Government's power of supervision over the police should be limited in order to ensure that police performance is strictly in conformity with the law (National Police Commission: Second Report, August 1979, p 29-30).
The phrase ‘general control and direction’ is not defined in the legislation.

The Himachal Pradesh Police Act assigned the function of the State Police Complaints Authority to the State Lokayukta vide Section 93.

The state of Uttar Pradesh presented an affidavit before the Supreme Court arguing that there are enough processes in place to deal with police misbehaviour.

Jammu & Kashmir has petitioned the Supreme Court to stay the execution of the state's instructions.

Subordinate rank means below the rank of Inspector of Police.


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