

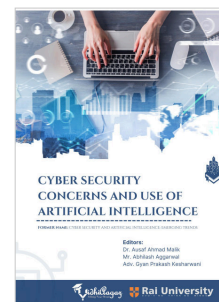
CHAPTER 2

Cybersecurity Concerns and Use of Artificial Intelligence: Two Major Forces behind the Creation of Criminogenic Society Globally

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CYBERSECURITY CONCERNS AND USE OF ARTIFICIAL INTELLIGENCE: TWO MAJOR FORCES BEHIND THE CREATION OF CRIMINOGENIC SOCIETY GLOBALLY

Maitri Shail Patel³

ABSTRACT

Every society and societal thinkings have undergone an evolutionary change over a long period of time since the terms like “**civilization**”, and “**society**” have been recognized in the several parts of the world. There have been several anthropogenic studies as well as detailed researches on various aspects which have revealed that the societies all over the globe have become “**criminogenic**” as in driven by the behaviour like that of hardened criminals where people tend to indulge in criminal activities to achieve their gruesome goals and fulfil their deepest & darkest desires marking the end of law, justice as well as humanity. There have been major factors and multi-dimensional forces responsible for the creation of such a menacing as well as troubling scenario of creation of criminogenic societies that are being experienced by the people every now and then. It is however, noteworthy that the two major forces which have contributed significantly in the creation of criminogenic societies all over the world are: **cybersecurity concerns** and **use of artificial intelligence (AI)**. It sounds very shocking or rather astounding that cybersecurity concerns and use of artificial intelligence are the two most major contributors in the creation of criminogenic societies but it's a fact that has been experienced magnanimously by the large number of the people all over the world as the everyday life has become really too dependent on technological advancement and even on the use of artificial intelligence. Until now, a lot researches have been conducted on cybercrimes and artificial intelligence. But the need of the hour is to study the socio-psychological as well as socio-legal aspect of cybersecurity as well as artificial intelligence altogether to understand that how the societies have reached here so far from what these used to be (i.e., so, far from imagination or any kind of speculation by anyone). Even the way the severity of crimes has increased, its all because of the easy access to the latest technology that's being misused as well as abused to carry out the same. With such a scenario, law, justice, and rights of the people have become endangered of being extinct. The challenge for the law-makers as well as the law-enforcers have also henceforth increased manifold. This research paper focusses on the contributions of cybersecurity concerns and use of artificial intelligence in creation of criminogenic societies globally beginning from how it actually started and then took the form in which it currently is. Also, the paper will attempt to come up with some practical solutions to this “**dual problem**” with deeper insights to the recent problem.

Keywords: Criminogenic Society, Cybersecurity Concerns, Artificial Intelligence, Dual Problem.

HISTORICAL BACKGROUND: DETAILED INTRODUCTION TO THE STUDY

Cybersecurity and **Artificial Intelligence** have been the most researched, discussed, debated, invented, innovative and the creative topics and areas of knowledge which have captured the deepest interests of billions of intellectual people from various field be it engineering & technology, fashion designing, photography, medicine, and even law and other fields all over the world including several professionals from each such field from India too, who have created their careers and professions surrounding either one of them or both of them altogether. Especially, the youth and even the generation next to **the Gen Z** which are being brought up by their mothers with the use of lullaby from YouTube and other internet

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hacks unlike the mothers of the people from earlier generations several decades back as in from **40's-50's till 90's-2000's** mothers. Even the way the fathers of generations after Gen Z managing and nurturing their families have become totally different from the earliest of the generations since 40's till 2000's.

Alongwith the burgeoning effects of both the **cybersecurity concerns** and **usage of artificial intelligence**, the most dangerous threat looming over the very existence of humanity and the sociological concept of society is the fact that with such dual advancement taking place exponentially, the societies all over the world have become **“Criminogenic”**, as in full of such a toxic environment which is making every sane individual including the teenagers, youth, and even middle-aged people as well as the old-aged people to indulge themselves in committing heinous, gruesome, severe and grave inhuman crimes for getting their whims, desires, ulterior motives, greed and revenge on anyone rather than focussing on the power of hard work, virtues, self-realization, meditation, spirituality and humanity. Every moment, every day there's such a criminal case which make all the people wonder and think while questioning in an insightful way: “What kind of progress the humans are moving towards? What are societies becoming day by day? Where would it end?and other such endless questions making everyone's faith and beliefs to shake tremendously.

The Indian scenario combined with the International Scenario needs to be henceforth studied to understand this current problem involving not only the Indian society but every society in the world to be forced to be criminogenic society due to the dual force of increasing cybersecurity concerns and use of artificial intelligence almost in everything which has sparked the major concern of the fear of extinction of human intelligence just like the cinematic depictions of this scenario in the famous Rajnikanth and Aishwarya Rai Bachchan starrer Telugu movie named “Robot”; then, in the Hollywood movie titled “the Transformers” movie; Akshay Kumar starrer Tamil movie “2.0” and Shahid Kapoor-Kriti Sanon starrer Bollywood movie “Teri Baaton Mein Aisa Uljha Jiya” and so on.

A detailed study on cybersecurity & its concerns and artificial intelligence & it's usages and then, a combined study on both in Indian perspective as well as the International/Global perspective can really be insightful, helpful as well as resourceful for understanding the factors responsible for initiating the vicious cycle of the formation of such criminogenic societies all over the world and making maximum people understand it before it's too late.

CYBERSECURITY AND ALLIED CONCERNS

Cybersecurity, as all people are hyperaware nowadays, is a very dynamic, ever-evolving and a very troubling concept that has come into existence with time as the usage of internet increased almost exponentially with its advent. There have been various discussions, talks & debates, legal considerations, researches, studies and investigative documentations regarding various allied concerns of cybersecurity like: (1) Cybercrimes; (2) Cyberstalking; (3) Cyberbullying; (4) Usage of Cyberspace; (5) Hacking; (6) Phishing; (7) Cyber Terrorism; (8) Cyber Espionage; and all the other emerging concerns with the growing use of cyberspace, and advanced technologies.

When it comes to the meaning of the term ‘cybersecurity’, it has always been mentioned that it’s infinite and enormous size have actually created a way for multiple interpretations making it a very subjective aspect. There’s no fixed meaning for it. The meaning is decided as well as determined by the users of the cyberspace be it those utilize internet spaces and various domains as online gamers, researchers, professional academicians, hackers, bloggers, social media influencers, tech savvy people, computer science students & professionals, software & hardware engineers, website/domain owners, businesswomen as well as businessmen and various others.

Now, the need of the hour is to brainstorm and list down all the possible meanings of the term cybersecurity; compile them; conceptualise it for law-making, mitigation of cybercrimes and ensuring the safety of data and virtual life everyone on social media platforms as well as websites and various online gaming servers and work websites. The subjective and diverse nature of cybersecurity needs to be embraced wholeheartedly for arriving at a conclusive, comprehensive, accurate and a precise meaning. Also, there’s a requirement of the coining as well as recognition of yet another term which is **“Cyberdiversity”** which basically means etymologically, the diversity of usage and users of cyberspace.

When it comes to defining the term ‘cybersecurity’, well, it’s mostly defined in some fixed contexts like cybercrimes, safety on the internet, data security, protection & safeguarding of sensitive data and so on. But there’s a lack of an in-depth definition of cybersecurity. To be very clear, it will be absolutely correct to mention that as compared to cybersecurity, the term “cybercrime” has become the most google searched, researched, studied, debated, discussed and the paramount concept while the truth is that it’s just a tiny unit, a mini facet and a little aspect under cybersecurity.

To make everyone understand what actually the cybersecurity is, it needs to be defined in an original, observant, innovative, dynamic and a more realistic manner. So, saying that, the term ‘cybersecurity’ can be defined as: **“The extent to which all kind of data are safe and secure from any kind of theft or harm on the diverse cyberspaces is termed as Cybersecurity.”** Although, this definition appears to be simple, it’s a step ahead towards getting deeper into it while exploring its areas and contours to understand it and its allied concerns with efficiency, precision, and accuracy.

The concept of cybersecurity originated much later than that of cybercrimes and cyberattacks alongwith it’s much later recognition. Just like in every story where the cities develop and then, they are planned by the town planners instead of town planning first and then, creation of cities, the cybercrimes and cyberattacks came into limelight and then, the concept of cybersecurity was recognized. The evolution of the concept of cybersecurity has happened mostly after 2017 when it was recognized in the developed countries first and then, in the developing as well as the underdeveloped countries and especially, after the exponential increase in the accessibility to the cyberspace with data plans in affordable prices all over the world alongwith the supremely increased use of cyberspace all over the world for even the tiniest task. The various aspects of cybersecurity have been evolving since then with the various aspects and extents of data protection, security and safety on the cyberspace in any way.

Apart from cybersecurity, the allied concerns that have been surfacing recently are Cyber Violence, Cyber Terrorism, Cyber War, Cyber Espionage and Cyber Defence. These are the tip of the iceberg of the deeper issues that are seeping in all over the world in one way or the other. Also, surprisingly, these concerns are no more alien or unknown to the people as using cyberspace has become a new-normal since a long time as in more than a decade ago.

- CYBER VIOLENCE: It is another recently originated and evolved term which is one of the most challenging concerns allied with the cybersecurity. The term “cyber violence” basically, means using cyberspace for attacking someone’s dignity or data causing an emotional hurt or a mental trauma for altruistic and selfish motives.
- CYBER TERRORISM: As the term suggests, it’s about misusing and abusing the accessibility of the diverse cyberspace for creating a terror and havoc amongst the masses of public causing severe data harm as well as psychological trauma leading to devastation of integrity and security of several nations all at once.
- CYBER WAR: Nowadays, the cyberspace is not being used only for creative ways but also, in a highly destructive manner as in fighting psychological wars for hacking into other countries’ firewalls and secured domains to steal the sensitive and secret information with a malevolent intention of misusing the weaknesses against them for making them crippled and disabled. The wars that are nowadays, fought on the cyberspace with even more evil strategies and cruel tactics are known as Cyber War.
- CYBER ESPIONAGE: The companies’ data including its trade secrets, intellectual property protections, and other sensitive data are being attacked, stole, misused and used cruelly for removing them out of the corporate competition. This is termed as Cyber Espionage.
- CYBER DEFENCE: It is a term which refers to the ways of defending one’s cyberspaces for ensuring safety, security as well as the protection of the data smartly, strategically and efficiently.

ARTIFICIAL INTELLIGENCE (AI) AND IT’S USAGES

Artificial Intelligence (AI) as the term suggests, it **means** artificially created, developed, curated algorithms and are altogether compiled in a way to create an intelligent and smart beings by the human beings themselves. Also, it can be simply and generally **defined** as: **“a perfect blend of artificially curated algorithms, programmed intelligence, high-tech software and a capability of acquiring other intelligence on its own and which have been developed for making the lives of all the humans easy by reducing their workload, and saving their time, money, and energy.”**

Artificial Intelligence has been in exponential use at a global level since it’s origination in the developed nations like China, Japan, U.S.A., and others. This technological advancement has been utilized at a deeper level in the developing countries and especially, in India since the first robotic advanced surgery happened in the **All-India Institute of Medical Sciences (AIIMS), New Delhi** in the first time in the **year 2006**. The surgery was performed by **Dr. Prem Nath Dogra**, a urologist, who used a four-armed

robot. The surgeon monitored the robot using a surgical console, similar to an airplane pilot in a cockpit.

Here are some other milestones in the history of robotic surgery in India:

- **2000:** The FDA approved the da Vinci system for urologic robotic surgery
- **2007–2017:** A decade of rapid growth in robotic surgery in India
- **2023:** 66 robotic surgery centres in India, 71 robotic systems installed, and over 500 doctors trained in robotic surgery

Robotic surgery is used in a variety of medical fields, including urology, gynaecology, orthopaedics, laparoscopy, thoracoscopy, and arthroscopy.

Not only this, but even the search engines that we use on our PCs, Laptops, Desktops, iOS cellphones, and Android Smartphones like Google Chrome, Microsoft Edge, Mozilla Firefox, etc. not only make our research study, our search for the required any kind of information as well as the collection and data compilation easier than ever. Also, they are one of the several forms of artificial intelligence at work where these search engines store every detail about the users and based on it's search history and interests, it designs their personal news feed and even newer search recommendations.

Similarly, the shopping apps like that of Myntra, Amazon, Meesho, Zepto, Blinkit, Big Basket, Swiggy Instamart, etc. too, collect the information based on users' search and shopping history and send the regular notifications about the suitable shopping schemes luring to keep shopping often and often. Even the cars are nowadays laced with all advanced and artificially intelligent features like the 360-degree cameras to check out the traffic in all 4 directions at once without causing spondylitis as in pain the neck at all and self-drive mode or auto-drive mode for longest car trips ever in any place in the entire world.

The traceability of every human being in any part of the world has become very easier than before as anyone can be located precisely with the help of the Global Positioning System (GPS) that's the default feature in almost all the android as well as iOS smartphones and also in most of the food delivery apps, shopping apps, Internet Search Engines, Google Timeline Features and all the Social Media Apps like the Instagram, Facebook, Snapchat, X (Twitter), and so on. It's all a big thanks to the advancement of artificial intelligence over a long period of time.

The artificially intelligent electrical gadgets like the hairstyling machines and the dry as well as wet vacuum cleaners manufactured by the most renowned company named Dyson alongwith the Robotic Cleaning Machines and Smart Machines for cleaning which have not only eased the burden of household work but also have revolutionized the conventional lifestyle of most of the human beings nowadays. Also, the wave of digitalization of banking, payments, finances and transactions which boomed from India in the form of UPI through various platforms like Paytm, PhonePe, etc., and so on, has taken a massive and an enormous form as it's webs have spread far and wide throughout the globe, is also, another form of artificial intelligence in action.

Apart from almost infinite number of usages, the advancement as well as the development of artificial intelligence, a lot of hot and debatable questions having the scope of various futuristic researches like: “Will artificial intelligence be taking over the human intelligence? Will the world have a dramatic, shocking yet a really devastating ending as shown in the “Transformers’ Movies?”and so on. Also, the artificial intelligence has been discovered as being one of the two major forces alongside cybersecurity concerns responsible for the criminogenic society every passing moment, and every day. Let’s study and understand in-depth as to how is that possible and think of something to solve this hovering menace for the future.

FORMATION OF A CRIMINOGENIC SOCIETY EVERY MOMENT & EVERY DAY: REALITY CHECK AND AN IMPORTANT CONCLUSION ALTOGETHER

The term “**Criminogenic**” means as “in something of a criminal, or an illegal nature” therefore, a “**Criminogenic Society**” can be precisely defined in a general norm as “a society where people are driven by their malafide intentions and malevolent intentions to achieve their end goals by indulging in committing crimes, illegal acts as well as the offences just for the sake of their emotional satisfaction in the form of revenge, greed, etc., and so on.”

Nowadays, with the multi-variate and the exponential development as the advancement of technology in almost all possible aspects possible or even unimagined 3-4 decades ago, there have been several factors behind the conversion of the current society into a criminogenic society globally out of which the two major forces which have led to the creation of this most futuristic and a challenging problem are: **Cybersecurity & Allied Concerns** and **Artificial Intelligence & It’s Usages**.

Actually, the advancement of Artificial Intelligence (AI) with the creation of various pathways for commission of the most severe, heinous, gruesome, and inhumane cybercrimes with the creation of artificial bots as in artificial humans, with fake identities as real as the natural humans which can lead to problems in tracing the real offenders as well as the criminals and such things happen on the infinite cyberspace as it is misused in several ways apart from being used in various ways as mentioned in the earliest section of this research paper.

Easy accessibility of the enormously infinite cyberspace in the form of reasonable data plans have actually been very conducive for the misuse of artificial intelligence which does not necessarily have to be devastating and destructive as contrary to the original intention behind the creation as well as the development in this direction when it actually began in the late 2000’s and especially, later than the year 2014.

The dual forces of Artificial Intelligence (AI) & It’s Usages as well as the Increasing Cybersecurity & Allied Concerns have actually led to re-wiring of the minds of all the fertile, creative, innovative and humanely intelligent brains of the people of every age group especially, the youth i.e., 18-35 years of age group in such a destructive manner that every second or third person keeps on thinking as a criminal mastermind for the sake of a psychological kick from euphoria resulting from the malevolent intention of seeking revenge, satisfying the never-ending greed for easy money, for land extortion, and so on

where the humanity seems to end and the dark era of sins, greed, and all the negativity seem to begin in the very same moment at a speed which every single heart beats in the entire world.

People have become highly temperamental, sentimental, fickle-minded, crazy, maniac, impatient, unstable as well as psychologically criminogenic and almost completely devoid of humanity with the increased influence of the cyberspace and artificial intelligence in various forms like:

1. Social Media and it's addiction;
2. Screen Addiction due to abuse of Android Smartphones, Laptops, PCs, Desktops and so on;
3. Misuse as well as the Abuse of the Resourceful and enormously Infinite Cyberspace;
4. Excessive Release of Adrenaline, Dopamine, Serotonin and other Endorphins due to Excessive Usage of Social Media, OTT Platforms, and all the various forms of the infinite cyberspace as the Brain gets overloaded with the Junk Thoughts as food rather than organic, creative, natural and humanly intelligent ideas and thoughts;
5. Online Trends like Celebrating Festivals alongwith the Organizing Various Social Events as well as Corporate & Work as well as the Educational Events and other kinds of Events on Virtual Platforms like Zoom, Google Meet, Skype, and so on;
6. Enjoying Everything on the Various Kinds of Screens while depriving one's own self of nature's bounty, humanity, social connection and an art of leading a real life in a true sense as in having an innovative and a dynamic routine including family trips, casual outings, spending time with family, friends as well as all the loved ones in any possible way;
7. Cyberspace and Artificial Intelligence have created such attractive and addictive apps, softwares as well as the games that keep everyone hooked to their smartphone screen making them actually dumb, slow and devoid of common sense, locomotive senses, and all the reflexes leading to the end of true Human Intelligence Quotient (IQ).
