



Critical-Legal Analysis of the Use of Artificial Intelligence in India

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Abstract

Artificial intelligence (AI) is revolutionizing industries and how we live, work, and interact. It has impacted many facets of modern life. In the modern world, artificial intelligence has several applications. It is quite apparent in the areas of industry, transportation, finance, healthcare, and education, among others. Advanced artificial intelligence applications have created opportunities for high-tech crimes such as fraud, data breaches, defamation, and other financial losses.

Since technology is advancing at an exponential rate, strict rules must be enacted and put into effect in this area to prevent AI from becoming the cause of human suffering. This paper is an attempt to analyze the scope of Artificial intelligence, crimes committed using AI, and statutory provisions in this regard. The author shall be relying upon doctrinal methodology for writing this paper.

Keywords: *Artificial Intelligence, Modern, Crime.*

Introduction

Over time, human beings have started to rely more and more on technology because technology has provided ease and comfort in every aspect of life. Initially, even in the household food was cooked on an earthen stove with the help of wood and coal. For grinding spices manual grinders were there. Brooming and Cleaning was done physically and many other day-to-day activities were performed manually. With the advent of technology washing machines, induction, mixers, grinders, and vacuum cleaners replaced the manual work in the household but that too required a little human effort. But with the advent of Artificial intelligence, even that little human effort has vanished. Life has become so easy and comfortable.

Not only the common household work but even academics have witnessed a lot of advancement with the use of AI. Initially, books and research papers were written through a lot of hard work and brainstorming sessions. While preparing lectures, teachers had to go through several books and articles to brush up their knowledge but now with the application of AI one can easily get information on any topic from any field within a fraction of a seconds.

Similarly, for financial transactions one has to go personally to the bank to withdraw or deposit money, after some time ATM was introduced along with debit and credit cards. Now there are applications in the mobile phone through which transactions can be done with the ease of just one click. With the advent of AI, even the concept of automatic payments, chatbots, etc. have been introduced. So, with the least human effort financial transactions can be made.

AI has assisted almost every dimension of life but with the ease AI has offered, we have surrendered our privacy and autonomy which has widened the scope for the commission of several AI-assisted crimes.

Objectives of the Paper

This research paper is written with the following objective:

1. To understand the meaning and scope of Artificial Intelligence.
2. To determine the challenges of using Artificial Intelligence.
3. To highlight the instances of AI-assisted crimes.
4. To conduct a comprehensive study of legal aspects of Artificial Intelligence and related statutory provisions.
5. To assess the efficacy of law in combatting AI-assisted crimes in India.

Research Methodology

For writing this research paper, the author has relied upon the Doctrinal method. Data from primary sources such as Supreme court judgements and relevant statutory provisions has been cited. For secondary data, the author has relied upon books of eminent authors, research papers, thesis and authentic internet sources.

Research Questions

Through this research paper, the author seeks to find out the answers to the following questions:

1. What is the meaning and scope of Artificial Intelligence?
2. What are the main issues and challenges of using Artificial Intelligence?
3. How Artificial intelligence is assisting crimes?
4. What are the laws to regulate the use and misuse of Artificial Intelligence in India?
5. Whether the Indian laws are sufficiently deterrent to combat AI-assisted crimes in India?

Understanding the Meaning of Artificial Intelligence

The simulation of human intelligence in machines, especially computer systems, is known as artificial intelligence (AI). In this area of computer science research, techniques and software that let robots sense their surroundings, learn, and make choices to accomplish particular tasks are developed and studied. Advanced web search engines, recommendation engines, voice assistants, driverless cars, and creative tools are a few examples of AI uses. Nevertheless, a lot of AI applications are now so ingrained in daily life that they are no longer identified as such. The subject of AI research is divided into several subfields, each concentrating on particular objectives and resources.

Applications of Artificial Intelligence

AI has vast dimensions and it is assisting mankind in almost all possible sectors which are quintessential for human existence. It can provide Virtual Assistance (e.g., Siri, Alexa, Google Assistant). Several service providers are using AI Chatbots for Customer Service etc. However,

the author is willing to highlight certain prominent areas where the application of Artificial intelligence is significantly considerable:

1. **Healthcare:** The medical field in India is advancing as a result of the implementation of artificial intelligence (AI) in healthcare facilities. AI is being used by many prestigious hospitals, including AIIMS, APOLO, FORTIS, MAX, and TATA, to diagnose illnesses, treat patients, and conduct medical research. AI-driven diagnostic technologies, such as computer-aided detection systems, are being utilized to increase the speed and accuracy of diagnosing illnesses like tuberculosis and cancer. Healthcare professionals may anticipate patient outcomes and optimize treatment strategies with the aid of predictive analytics, while AI-powered chatbots and virtual assistants are improving patient engagement and experience. Moreover, precise and minimally invasive surgical operations are made possible by the employment of robotic devices with AI assistance. To facilitate remote consultations and increase access to high-quality healthcare services, Indian healthcare facilities are also utilizing AI for telemedicine.
2. **Finance:** The way average people handle their finances has completely changed as a result of the introduction of artificial intelligence (AI) into the banking industry. Financial services are now more easily accessed, tailored, and easy thanks to AI-powered solutions. Examples of virtual assistants that offer round-the-clock customer service include Eva from HDFC Bank and SIA from SBI. These assistants assist users with transactions, account management, and investment advice. Users can effortlessly manage spending, receive bill reminders, and make payments with AI-driven chatbots like ICICI Bank's iPal. Furthermore, quick loan approvals, credit scoring, and customized financial advice are offered by AI-based services like Paytm and ZestMoney. Mobile wallets that use AI to detect fraudulent transactions and improve security include PhonePe and Google Pay. Moreover, robo-advisors with AI capabilities, such as FundsIndia and Scripbox, provide low-cost portfolio management and investing guidance. Even filing taxes has become easier through AI-assisted platforms.
3. **Education:** The use of artificial intelligence (AI) in education has revolutionized the environment for learning in India, from primary to higher and technical education. AI-powered adaptive learning systems, such as e-khoolⁱ, Courseplay, Paradiso LMS provide extensive learning experiences for students based on their capabilities and learning styles. AI-powered tools such as 'Teacher.ai'ⁱⁱ assist teachers in monitoring student progress. In higher education, AI-assisted platforms such as Coursera and edX provide online courses and degree programs, extending access to high-quality education. AI has also experienced widespread use in technical education and collaborative research.
4. **Transportation:** India's transport system has changed significantly as a result of the application of artificial intelligence (AI). Intelligent transportation systems (ITS) with AI-powered flow optimization minimize travel times and congestion. For example, the AI-driven system of the Mumbai Traffic Police examines real-time traffic data to control signal timings and reduce latency. Road closures, traffic, and the time of day are all taken into account by AI-assisted route optimization applications, such as Google Maps and Waze, to provide drivers with the most efficient routes. Cities like Bengaluru and Delhi are testing autonomous vehicles, such as self-driving cars and buses, which offer increased safety for the public. Indian Railways and other organizations utilize AI-driven predictive maintenance solutions to identify possible equipment breakdowns and minimize downtime.

5. **Cybersecurity:** Artificial Intelligence (AI) has become increasingly popular in India as a means of strengthening cybersecurity defenses. AI-driven technologies are being used to identify and stop ransomware, phishing, and malware attacks, among other advanced cyber threats. AI-driven technologies are used by the Indian government's Computer Emergency Response Team (CERT-In) to monitor and assess cyber threats in real time, facilitating quick incident response. Systems such as the Reserve Bank of India's usage of AI-assisted security information and event management (SIEM) can detect possible vulnerabilities and anomalies, enabling preventative actions. Chatbots powered by AI, such as CyberDome, educate and assist citizens about cybersecurity.

AI-Assisted Crimes in India

AI-assisted crimes are becoming more common in India due to rapid digitalization and increased use of AI. Threats of this nature can affect the nation because of its large population, low level of digital literacy, and weak cybersecurity infrastructure. Moreover, social media sites have been misused to disseminate false information, defamation, and fake videos inciting societal unrest and influencing elections.

It is evident that misuse of AI may result in Physical harm (e.g., autonomous vehicle accidents), Economic harm (e.g., AI-driven financial losses), Emotional harm (e.g., AI-generated defamation), or Privacy harm (e.g., AI-powered data breaches).

Some of the AI-assisted crimes may be highlighted as follows:

1. **Cybercrimes:** The application of artificial intelligence (AI) in cybercrimes has increased in India, bringing serious risks to both personal privacy and national security. One significant incident that was covered by the media was the "Deepfake" video fraud, which used artificial intelligence (AI) to create videos of well-known Indian politicians and celebrities that were shared on social media, causing controversy and false information.ⁱⁱⁱ The Delhi Police uncovered an AI-powered "sextortion" scam in which hackers employed AI-powered technologies to produce sexual content and blackmail victims.^{iv} Another incident involved AI-assisted "voice phishing" attacks, where scammers used AI-generated voices to impersonate government officials and dupe citizens. The Indian Express reported on an AI-powered "ransomware" attack on the All India Institute of Medical Sciences (AIIMS) in 2022, where hackers demanded a hefty ransom in cryptocurrency.^v These incidents demonstrate the growing concern of AI-facilitated cybercrimes in India, which require urgent attention from law enforcement agencies and cybersecurity experts to mitigate their impact.
2. **Financial Frauds:** There have been numerous instances of financial scams in India carried out with the use of artificial intelligence (AI). A 68-year-old man received a call from his son residing in Dubai claiming that he required some money since he was in some trouble. The voice was AI-generated and it was a scam to defraud the victim to extract money.^{vi}
3. **Social Media Manipulation:** The use of artificial intelligence (AI) in criminal activities has proliferated on Indian social media platforms, endangering both public safety and national security. Elections are being influenced, disinformation is being distributed, and public opinion is being shaped by algorithms and bots driven by AI. Artificial intelligence (AI)-generated false news and deepfake films have been shared on social media sites like Facebook, Twitter, and WhatsApp, inciting violence and escalating tensions between people.
4. **Drone-Related Crimes:** Drone-related crimes have increased in India, where criminals are using artificial intelligence (AI) to carry out their illicit schemes. Drones with artificial intelligence capabilities are being used to smuggle weapons and other illicit

goods both domestically and internationally. Drones with AI capabilities are also being utilized for espionage. These drones have been seen in close proximity to government and military institutions that are of great importance. Additionally, illegal monitoring is being carried out by AI-powered drones, violating people's privacy and jeopardizing national security.

Legal provisions for the use and misuse of Artificial Intelligence

In India, the legal framework for AI is still evolving. However, there are some existing laws and regulations that address the use and misuse of AI:

1. **Information Technology Act, 2000:** The most significant piece of legislation in India that addresses cybercrimes, including those that use artificial intelligence (AI), is the Information Technology Act, 2000 (IT Act). Although AI is not specifically mentioned in the Act, cybercrimes involving AI can be addressed by its provisions. Relevant sections of the IT Act include:
 - a) Section 43: This section deals with unauthorized access, damage, or disruption of computer systems, stealing of information, alteration or destruction of information which can be applied to AI-powered hacking or malware attacks.
 - b) Section 66: This section provides punishment for computer-related offences provided under section 43 of the Act. Therefore, this may be equally applicable to unauthorized access, data theft, or damage using AI.
 - c) Section 66A: This section provides punishment for sending offensive messages which can easily incorporate AI-generated audio/video or text messages.
 - d) Section 66D: This section provides punishment for cheating by impersonation using computer resources which may also include AI-generated Clone voice calls and messages used for spreading fake information or to defraud the victim.
 - e) Section 66E: This section provides punishment for violation of privacy by sending or publishing private area pictures of the victim without consent. It shall also include fake pictures and videos of the victim generated using AI.
 - f) Section 66F: This section provides punishment for Cyber Terrorism which may also include AI-empowered terrorist activities including the use of AI-assisted Drones endangering national security.
 - g) Section 67, 67A & B: These sections provide punishment for pornography including child pornography. Hence, it may also include deepfake videos spreading obscene content.
 - h) Section 79: This section provides punishment exemptions for intermediaries (e.g., social media platforms), but also holds them accountable for failing to remove unlawful content, including AI-generated deepfakes or hate speech.
2. **The Bhartiya Nyaya Sanhita 2023**, which has replaced the Indian Penal Code (IPC) specifically does not deal with AI-generated cyber-crimes but the provisions relating to defamation, publication, and dissemination of obscene material, forgery or any offence committed against mind, body, property, or reputation committed with the help of AI shall be punished in the same manner as if it was committed by the offender in the ordinary course.
3. **Copyright Act, 1957:** This Act protects original literary, dramatic, musical, and artistic works, and therefore any such work which is generated by using AI in contravention of the Copyright Act shall be dealt with in accordance with the provision of the Act.

Leading Judgements

The Supreme Court of India has delivered several judgments addressing the misuse of Artificial Intelligence (AI) and emphasizing the need for regulatory measures. Some notable judgments include:

1. ***Justice K.S. Puttaswamy (Retd.) v. Union of India***: The court recognized the right to privacy as a fundamental right, which has implications for AI-driven data collection and processing.^{vii}
2. ***Bharat Jatav v. State Of Madhya Pradesh***: Taking into account the growing crime rate due to unlimited AI use, the court observed that the "Rule of Law" and the "Adjudication Process" cannot be left to the whims of outdated methods of investigation and prosecution when Artificial Intelligence, Robotics, and Drone Technologies are commonly used by the criminals. Law enforcement machinery along with the courts cannot be solely dependent on witness testimony; rather, they must be grounded on scientific methods. Trial judges, public prosecutors, and police officers must possess a thorough understanding of forensic science concepts and instruments.
3. ***Akshay Tanna v. John Doe & Ors***: In this case, a deepfake video was produced using artificial intelligence to imitate the plaintiff falsely and entice people to invest their money with those who falsely claim to be associated with the plaintiff. Therefore, it is directed that the Department of Telecommunications, Ministry of Communications, Union of India, and the Ministry of Electronics and Information Technology, Union of India, respectively, issue the necessary notifications and directions to all telecom and internet service providers and Domain Name Registrars in India, in order to permanently block, delete, and remove access to all phone numbers, websites, domain names, and other content that is found to be misusing the Plaintiff's name.^{viii}
4. ***Ms. Aaradhya Bachchan and Anr v. Bollywood Time & Ors***: Mumbai native Aradhya Bachchan, a student at Dhirubhai Ambani International School, has filed a complaint (through her father Abhishek Bachchan) against unidentified people spreading damaging and fraudulent videos about her on YouTube. These videos used altered images to give the impression that the subject was seriously unwell; some even claimed that she had passed away. Also, the videos request that viewers subscribe. The girl alleges these videos violate her right to privacy and also infringe Rule 3(1)(b)(iii) of the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.^{ix}

Challenges

A famous quote 'Science is a good servant but a bad master' is truly evident in the application of Artificial intelligence. It's one of the best scientific creations where machines can think and act like humans. But unchained use of artificial intelligence has opened doors for innumerable threats. The biggest challenges associated with Artificial intelligence are:

1. AI has become the greatest threat to mankind because there is no specific and stringent law to regulate the use of Artificial Intelligence and to fix the liability of the offender as well as service providers.
2. Moreover, there is an urgent need to fix the liability and accountability in AI decision-making. For instance, accidents are caused due to AI-driven cars or trains.
3. To deal with AI-assisted crimes India requires not only specific legislation but also well-equipped and well-trained Cyber police.
4. There is a need for balancing innovation with stringent and effective regulation.

5. The scope and jurisdiction of AI is unlimited. There is a need for international cooperation in this regard.

Conclusion & Suggestions

Like every other invention, the concept and creation of Artificial intelligence was aimed at assisting mankind. Artificial intelligence enabled the machines to think like humans. The sole purpose was to enhance the productivity of human efforts and to provide ease and comfort. The growing misuse of Artificial intelligence has put the safety of mankind at stake and therefore it has become the need of the hour to regulate the use of Artificial intelligence so that people may not be victimised any further by the use of artificial intelligence. The author submits the following suggestions in this regard:

1. To strengthen the regulatory framework, the Government must revise the existing IT Act and pass a law specifically addressing crimes facilitated by AI.
2. The Government must invest in providing the latest tools and equipment to the cyber police and training the investigating agencies to deal with AI-assisted crimes more efficiently.
3. The Government must take steps to enhance digital literacy in the Country to make people aware of AI-assisted crimes.
4. The Government must adopt measures to combat AI-assisted crimes in collaboration with international agencies and other nations of the world.

References

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