Integration of Artificial Intelligence in New Criminal Laws in India: Challenges Ahead

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Abstract: *Artificial Intelligence (AI) is traversing through various sectors including the field of law enforcement. Legal processes, policing, surveillance, collection of evidences, data gathering can be done easily by the Artificial intelligence. AI has the potential to transform the Indian Criminal Justice System into a technologically driven justice delivery system. India has moved forward into the digital era with the introduction of new criminal laws which came into force from July 2024. The Bharatiya Nyaya Sanhita (BNS), the Bharatiya Nagarik Suraksha sanhita (BNSS) and the Bharatiya Sakshya Adhiniyam (BSA) are the three new criminal legislations which emphasizes the use of technology in criminal justice system. The legal system in India is thereby undergoing a paradigm shift with these three new laws which aims at modernizing the criminal justice system by replacing the Indian Penal Code (IPC), the Criminal Procedure Code (CrPC) and the Indian Evidence Act. Integration of AI in to criminal justice system is an inevitable fact now and therefore it becomes very important to know its implications. This paper attempts to examine the interface of AI with the new criminal laws while balancing the efficiency, transparency and effectiveness of criminal justice system while upholding the rights and ethical standards intact.*

Keywords: Artificial Intelligence

I. INTRODUCTION

New Criminal Laws: An Overview

Bharatiya Nyaya Sanhita (BNS):

The Bharatiya Nyaya Sanhita (BNS) has replaced the Indian Penal Code (IPC), which has governed criminal laws in India since 1860. Various reforms are being introduced in BNS which are aimed at decolonizing the criminal justice system the new law is all set to address the emerging challenges such as cybercrimes and terrorism. The BNS is divided into 19 chapters having 356 clauses covering offences, punishments as well as general principles of criminal law such as mens-rea, actus reus, causation, defences etc. the BNS prescribes five types of punishments: death, imprisonment for life, imprisonment (rigorous or simple, fine and community service. The key feature of BNS is that it introduces the concept of minimum and maximum sentence for every offence in contrast to the IPC wherein only maximum punishment was mentioned. It also provides for mandatory compensation to victims thus upholding the interest of victims.

The BNS defines a broader range of offences including offences against state, public tranquility, human body, property, public health, safety, morals etc. with some changes and additions. For instance, the BNS repeals the sedition law which was quite controversial and replaces it with new offence of waging war against Indiaand its allies. The BNS also introduces new offences such as cyber-crimes, terrorism, hate speech, sexual harassment t workplace, acid attacks etc and modifies some existing offences such as rape, murder, theft etc to make the more comprehensive to cope up with the present societal needs. Therefore it is evident that, the BNS has updated punishments and procedural guidelines, the main focus of the BNS is on accountability and speedy justice. It has incorporated offences which are relevant to modern challenges such as digital frauds. As India is marching towards digitalization, our laws must match the India's contemporary socio-political and socio-legal landscape.

Bharatiya Nagarik Suraksha Sanhita (BNSS):

The BharatiyaNagarik Suraksha Sanhita (BNSS) replaces the Criminal Procedure Code (CrPC). The law redefines the processes involved in criminal investigations, arrests, trials and sentencing. The main focus is to make the legal procedures more accessible, transparent and efficient with strong focus on safeguarding the rights of both victims and the accused. The BNSS emphasizes on incorporation of digital and forensic tools into law enforcement procedures making room for AI-driven innovations to improve investigative accuracy and efficiency.

Bharatiya Sakshya Adhiniyam (BSA):

The BSA is a reformed version of the Indian Evidence Act which modernizes the process of collecting, analyzing and presenting the evidences in court. BSA emphasizes the incorporation of digital evidence thus recognizing the growing need for AI-driven tools in forensic analysis, collection of data and verification of evidences in criminal cases. BSA is a landmark legislation in recognizing the relevance of AI and digital tools in securing accurate evidentiary value based on principles of justice and fairness.

Integration of AI in Indian Criminal Laws: Opportunities and Challenges

The Digital India vision is strongly reflected in the new criminal laws since all trials, inquiries and proceedings, recording of evidence, examination of parties, issuance, service and execution of summons and warrants and many other processes are to be carried out electronically. There are so many opportunities for AI to be incorporated into the criminal justice system thereby making the system more accurate and powerful. However there are certain challenges which should not be ignored while integrating AI into new criminal laws. Some of these opportunities and challenges are summarized as follows:

Opportunities:

Artificial Intelligence and Prevention of Crime:

Artificial intelligence basically help law enforcing agencies in policing, identifying crime spots and deploying resources more efficiently. AI algorithms can predict the probability and pattern of crimes to be committed based on the earlier data and pattern. In such situations police can take swift action and can prevent the criminals from committing the crime. Thus, the objective of BNSS to improve the preventive measures and speed up the investigation is fulfilled. The monitoring of public spaces and identifying the suspects could be done with the help of AI driven surveillance systems using face recognition, gait analysis and pattern recognition. However, this may result into potential biases and over-policing which may affect public in general and marginalized communities in particular. While AI is very useful in ensuring public safety it must be used cautiously and responsibly.

Incorporation of AI in Investigation of Crimes:

New criminal laws emphasizes on the use of technology in investigation of crime which is a very crucial part of criminal justice system. In this regard, AI tools become very useful in analyzing large volumes of data such as financial records, phone logs and CCTV footage which is many times faster than human investigators. AI can help in detecting various patterns in cyber crimes, financial frauds and other newly evolving complex issues where manual investigation becomes difficult as well as time consuming. This aspect aligns with the objective of BNSS to ensure speedy justice and that of BSA to recognize digital evidence in trials and investigation.

AI tools can also assist the forensic experts in analyzing digital and other evidences more effectively. For instance, with the help of AI algorithm the images can be enhanced and voice quality of conversations recordings can be increased. The other examples include, DNA analysis, gunshot detection, crime forecasting etc. Benefit of AI in DNA Analysis is noteworthy because it has an unprecedented impact on the criminal justice system. The pattern signature in gunshot analysis offers another area in which AI algorithm is used to help law enforcement in investigation. In criminal justice system, the job of analyzing large volume of data for predictive analysis rests mainly with police personnel and other professionals who must gain expertise over many years of experience. However this work is time consuming and subject to errors, also requiring lot of patience and precision. With the help of AI tool, it becomes possible to analyse large volumes of legal, social and economic data with ease.

Relevancy of AI in Judicial Processes:

The role of AI in legal research is also very significant. It helps judges and lawyer in searching relevant information from vast field of law i.e. case laws, legal texts, treatise, case precedents and statutes. This helps in speeding up of legal procedures resulting in speedy justice which is the main aim of the BNS and BNSS. AI can also assist in sentencing by providing data-driven recommendations based on previous judgements and established legal standards.

Managing Evidences through AI:

The important process in criminal justice system and under law of evidence is that of collecting, storing and analyzing evidence. Digital forensics can be benefitted by from AI by automating data recovery from devices ensuring and verifying the authenticity of evidence. In addition to that, AI can help assess the credibility of witnesses by analyzing their behavior and speech patterns. This is in consonance with the BSA's mandate of modernizing evidence laws by providing conducive framework for introducing AI-driven tools in evidence management.

Role of AI in Preventing and Regulating Cybercrimes:

The multifariousness of cybercrimes has been increasing very fast which has become one of the greatest challenges at the global level. The borderless nature of these crimes makes it difficult to investigate and to book the culprits. AI can play a substantially crucial role in monitoring online activities such as, detection of fraudulent transactions and identifying malicious software. Cybersecurity systems established under the Artificial Intelligence can help in preventing cybercrimes like hacking, phishing and data breaches. Moreover AI can assist in monitoring and regulating social media platforms for hate speech, fake news, online radicalization and identity thefts which may result in terrorist acts. These are the emerging threats to peace and tranquility as well as national security of the country. New criminal laws focuses on combating newly emerging crimes which could be achieved to some extent by the AI-driven tools. Hence the new legal framework must incorporate within it a robust mechanism in which AI may be used drastically for prevention and regulation of cybercrimes.

Challenges:

Although every day holds the potential for new AI application s in criminal justice system, there are many challenges with respect to integration of AI in assisting the criminal justice system and thereby improving the public safety. These could be summarized as follows:

Accountability and Criminal Liability:

There is no transparency in the decision making process of AI systems which raises concerns about accountability and liability aspects. The traditional criminal responsibility is tightly connected with human activity and ethics. In the BNS and other existing criminal laws, the blame for crimes as well as criminal responsibility lies with a rationale and voluntary control of the actions of a defendant. In addition, the very notion of criminal responsibility is based on the principles that presupposes human actors as rational controlling responsible for wrongful actions. Criminal liability implies a mental factor that can be intention, knowledge, or recklessness and a physical one that will cause harm or unlawful results. These situations are based on the principles of mens rea and actus reus which is totally absent in the case of AI. Hence its incorporation into the contemporary criminal liability law poses complications that are still not fully apprehended by the existing legal system. In many cases where AI- driven tools are involved it becomes very difficult to impose the responsibility. For instance if an AI tool make faulty recommendation that leads to wrongful arrests or convictions, it is not clear as to who would be held responsible. To overcome these challenges, the BNS, BNSS and BSA must clearly outline the legal accountability frameworks for AI system. It must be used as an assistive tool with the ultimate power of decision-making resting in human hands in order to ensure the protection of individual rights.

Risk of Bias and Unfairness:

AI system if not handled properly may lead to many complexities. One of the primary concerns with AI in the criminal justice system is the risk of bias. AI systems based on historical data may continue to be driven by the same if it

happens to have existing bias. For instance, if certain communities have been historically over-policed, AI system may continue to recommend higher policing levels for those areas thus affecting the rights of people of that communities. In country like India where significant diversity exists, any tool that implements AI for policing or hiring, and at the same time discriminates in a manner that it is based on the sample results, then it would be open to the possibility of legal challenge under the discrimination laws of the country. Therefore addressing AI bias requires transparency in AI algorithms, regular audits, and ongoing efforts to improve the diversity of training. The BNS and BNSS must include within it provisions to monitor and regulate the use of AI in a manner that ensures fairness and prevents discrimination.

Right to Privacy and AI:
There are numerous privacy concerns associated with the integration of AI. The AI-driven surveillance system, especially facial recognition and mass data collection tools, raise serious privacy concerns. In a country like India, where data privacy laws are still not fully ripe, the use of AI must be carefully regulated to prevent misuse and protect rights of citizens. There is a need to strike a balance between enhancing and enforcement capabilities and protection individual's right to privacy. AI surveillance should be used within clearly defined legal boundarie with robust mechanism to prevent abuse.

Legal and Ethical Concerns:
There are concerns regarding AI's ability to make moral and ethical decisions, especially in situations where human emotions, cultural context and empathy play a role in judgements. In such situations the ethical use of AI in criminal justice extends beyond privacy and bias issues. As mentioned earlier, AI lacks the ability to understand nuance, which is often critical in legal decisions. At the same time, laws such as BSA must ensure that AI-driven evidence collection and tools of analysis should meet high standards of accuracy and reliability thereby preventing wrongful convictions based on faulty AI assessments.

II. CONCLUSION

The integration of AI into the criminal justice system faces both, the opportunities and challenges. There are many opportunities and prospects which one can foresee but the challenges are also not less in number. More precisely, to modernize the entire criminal justice system in a country like India having diversified culture is no easy task. The advent of technology holds the potential for new AI applications in criminal justice system in order to improve and ensure public safety. AI could detect crimes that would otherwise go undetected and help in ensuring greater public safety by investigating potential criminal activity thereby enhancing faith of the people in law enforcement machinery. AI has the potential to be the indispensable part of our criminal justice system by making law enforcement, investigations and judicial processes more efficient and by allowing criminal justice personnel to perform their function in a better way to maintain public safety.

Hence, the new criminal laws must be designed to accommodate AI in a manner that enhance its benefits while safeguarding rights of the individuals and ensuring fairness in the administration of justice. AI can become a powerful tool in the journey of criminal justice system towards modernization if proper regulations, specialized training and ethical concerns are strictly and rigorously followed keeping in view the principles of justice and human rights.

Recommendations:
While incorporating AI system, clear standards regarding transparency, auditability and accountability should be mandated by law.

The new laws particularly the BNS and BNSS, should incorporate AI-specific regulations that guide its use in policing, investigations and judiciary.

There is a need to train the law enforcement officers, lawyers and judges with the specialized knowledge for better understanding of the implications of integration of AI into the criminal justice system.

The BNSS can make provisions for regular AI training programmes so that criminal justice professionals become well equipped to handle AI-driven tools.

AI is integrated into BSA to modernize the Indian Evidence Act. Hence the AI tools used for DNA analysis, facial recognition and digital forensics should meet rigorous legal standards to be admissible in the court of law.

The new criminal justice system is evolving with the integration of AI. Therefore a careful balance must be achieved between technological innovation and protecting rights of individuals. Care should be taken that the use of AI should not violate the fundamental rights of human beings.

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