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# ARTIFICIAL INTELLIGENCE IN THE INDIAN CRIMINAL JUSTICE SYSTEM: A STEP TOWARDS SMART JUSTICE OR A THREAT TO FAIR TRIAL?

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## ABSTRACT

The integration of Artificial Intelligence (AI) into the Indian criminal justice system represents a transformative shift towards data-driven governance. While AI offers significant potential to address systemic inefficiencies such as judicial delays, case backlog, and limited access to justice, its application raises serious constitutional, ethical, and legal concerns. This paper critically examines whether AI serves as a tool for “smart justice” or poses a threat to the fundamental principles of fair trial and due process.

The study explores global practices and the evolving Indian approach to AI in criminal justice, highlighting both opportunities and risks. Emphasis is placed on issues such as algorithmic bias, lack of transparency, accountability deficits, and the potential violation of fundamental rights under Articles 14, 19, and 21 of the Constitution of India. The paper argues that while AI can enhance efficiency and consistency in judicial processes, it must not undermine judicial discretion, human empathy, and constitutional safeguards.

Ultimately, the research concludes that AI should function as an assistive mechanism rather than a decision-making authority. A robust regulatory framework, ethical guidelines, and institutional oversight are essential to ensure that the integration of AI strengthens rather than weakens the justice delivery system.

**Keywords:** Artificial Intelligence, Criminal Justice System, Fair Trial, Algorithmic Bias, Judicial Discretion, Constitutional Rights, Article 21, Predictive Policing, Legal Technology.

## **1. INTRODUCTION**

The integration of Artificial Intelligence (AI) into the criminal justice system represents a paradigm shift from traditional adjudicatory mechanisms to data-driven governance. In India, where judicial inefficiency and delays have long been a matter of concern, AI is increasingly viewed as a technological solution capable of transforming legal processes. However, the adoption of AI is not merely a technical advancement; it is a structural change that impacts the very philosophy of justice.

Criminal law is deeply rooted in principles such as presumption of innocence, fairness, and judicial discretion. The introduction of AI challenges these principles by introducing algorithmic decision-making, which may lack transparency and accountability. Unlike human judges, AI systems operate on pre-fed data and patterns, raising concerns about whether justice delivered through machines can truly remain impartial.

Furthermore, the Indian socio-legal context, characterized by diversity, inequality, and systemic biases, makes the application of AI even more complex. There is a significant risk that AI tools may reinforce existing prejudices rather than eliminate them. Therefore, the discussion is not merely about efficiency but about safeguarding constitutional morality in the age of automation.

## **2. JUDICIAL APPROACH TOWARDS TECHNOLOGY**

The Indian judiciary has shown a progressive inclination towards adopting technology, particularly in response to challenges such as case backlog and accessibility. The acceptance of video conferencing, electronic evidence, and virtual hearings reflects a broader trend of digital transformation within the judicial system.

However, the transition from digital tools to AI-driven decision-making is a significant leap. While earlier technological interventions have been procedural in nature, AI has the potential to influence substantive outcomes. This raises concerns about the extent to which judicial functions can be delegated to machines without compromising the independence of the judiciary.

Additionally, courts have emphasized the importance of maintaining a balance between technological innovation and fundamental rights. The judiciary has consistently held that technology must serve as an aid to justice rather than replace human judgment. This cautious approach indicates that while AI is welcome, its application must remain within constitutional limits.

### **3. EVOLUTION OF AI IN LEGAL SYSTEMS**

#### **3.1 Global Perspective**

Globally, the use of AI in criminal justice has evolved from basic automation to complex predictive systems. In the United States, tools such as COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) are used to assess the likelihood of reoffending. However, these systems have faced criticism for racial bias and lack of transparency.

Similarly, European countries have adopted AI for administrative efficiency, particularly in legal research and case management. The European Union has also introduced ethical guidelines emphasizing accountability, transparency, and human oversight in AI systems.

These international experiences highlight a critical lesson: while AI can enhance efficiency, its misuse can lead to systemic injustice. Therefore, global practices serve as both a model and a cautionary tale for India.

#### **3.2 Indian Scenario**

In India, AI adoption is still at an experimental stage. Tools like SUPACE are designed to assist judges rather than replace them. This reflects a cautious and controlled approach, which is appropriate given the complexities of the Indian legal system.

However, the absence of a comprehensive legal framework governing AI poses a significant challenge. Unlike data protection or cyber laws, there is no specific legislation regulating the use of AI in judicial processes. This regulatory vacuum creates uncertainty and increases the risk of misuse.

## **5. NEED FOR AI IN INDIAN CRIMINAL JUSTICE SYSTEM**

The need for AI in the Indian criminal justice system arises primarily from structural inefficiencies. The enormous backlog of cases not only delays justice but also undermines public confidence in the legal system. AI has the potential to streamline processes, reduce delays, and improve overall efficiency.

Moreover, AI can play a crucial role in evidence analysis, particularly in complex cases involving digital data. With the increasing prevalence of cybercrime, traditional investigative methods are often insufficient. AI-based tools can assist in analyzing large volumes of data, identifying patterns, and generating insights that would otherwise be difficult to obtain.

However, the adoption of AI must be guided by a clear understanding of its limitations. Efficiency should not come at the cost of fairness. The primary objective of the criminal justice system is not merely to dispose of cases quickly but to ensure that justice is delivered in a fair and equitable manner.

## **6. IMPORTANCE OF AI INTEGRATION**

The importance of AI in criminal justice lies not only in its ability to enhance efficiency but also in its potential to transform the quality of justice delivery. By providing data-driven insights, AI can assist judges in making more informed decisions. This can lead to greater consistency and predictability in judicial outcomes.

Additionally, AI can significantly improve access to justice. In a country like India, where legal literacy remains low, AI-powered tools can help individuals understand their rights and navigate the legal system. This democratization of legal knowledge is a significant step towards achieving substantive justice.

However, it is important to recognize that AI is not a substitute for human empathy and moral reasoning. Justice is not merely a technical process; it is a human endeavor that requires sensitivity and understanding. Therefore, the role of AI must be carefully defined to ensure that it complements rather than replaces human judgment.

## **7. APPLICATIONS OF AI IN CRIMINAL JUSTICE**

The applications of AI in criminal justice are diverse and continuously evolving. Predictive policing, for instance, uses data analytics to identify crime-prone areas and allocate resources accordingly. While this can improve efficiency, it also raises concerns about profiling and discrimination.

In judicial processes, AI can assist in legal research by quickly identifying relevant precedents and statutes. This can significantly reduce the workload of judges and lawyers, allowing them to focus on substantive issues.

AI is also being used in surveillance and investigation through technologies such as facial recognition and biometric analysis. While these tools can enhance security, they also pose serious privacy concerns. The lack of regulatory safeguards increases the risk of misuse and abuse of power.

## **8. CHALLENGES AND CONCERNS**

The integration of AI into the criminal justice system is fraught with challenges that extend beyond technical limitations. One of the most significant concerns is the potential violation of fundamental rights, particularly the right to privacy and fair trial.

Algorithmic bias is another major issue. AI systems are only as unbiased as the data they are trained on. In a society marked by social and economic disparities, there is a high risk that AI systems may perpetuate existing inequalities.

Furthermore, the lack of transparency in AI decision-making processes makes it difficult to ensure accountability. Unlike human judges, AI systems cannot be cross-examined or held responsible for their decisions. This raises serious questions about the legitimacy of AI-driven justice.

## **10. CRITICAL ANALYSIS**

A critical examination of AI in criminal justice reveals a fundamental tension between efficiency and fairness. While AI offers numerous advantages, its limitations cannot be ignored. The reliance on data-driven decision-making may lead to a mechanistic

approach to justice, where individual circumstances are overlooked.

Moreover, the use of AI raises ethical questions about the role of technology in governance. Should machines be allowed to influence decisions that have profound implications on human lives? This question becomes particularly important in the context of criminal law, where the stakes are exceptionally high.

Therefore, the integration of AI must be approached with caution. It is essential to establish clear guidelines and safeguards to ensure that AI is used in a manner that enhances justice rather than undermines it.

## **11. SUGGESTIONS AND RECOMMENDATIONS**

To ensure the responsible use of AI in the criminal justice system, it is necessary to adopt a multi-dimensional approach. First, there must be a comprehensive legal framework regulating the use of AI. This framework should address issues such as accountability, transparency, and data protection.

Second, there is a need for capacity building within the judiciary and law enforcement agencies. Judges and lawyers must be trained to understand and effectively use AI tools.

Third, ethical guidelines must be established to govern the use of AI. These guidelines should emphasize fairness, non-discrimination, and respect for fundamental rights.

Finally, public awareness and participation are essential. The use of AI in criminal justice should not be a purely technocratic decision; it must involve broader societal engagement.

Another important recommendation is the establishment of an independent **regulatory and oversight body** specifically for Artificial Intelligence in the legal and criminal justice system. Such a body should be responsible for auditing AI algorithms, ensuring compliance with constitutional principles, and preventing misuse of technology by state authorities.

It should also mandate periodic reviews of AI systems to identify biases, errors, and unintended consequences. Additionally, this authority must ensure that all AI tools used

in judicial and policing functions adhere to standards of transparency and explainability, so that decisions influenced by AI can be scrutinized and challenged in a court of law. This would not only enhance accountability but also strengthen public confidence in the justice delivery system.

## 12. CONCLUSION

Artificial Intelligence represents both an opportunity and a challenge for the Indian criminal justice system. While it has the potential to address long-standing issues such as delays and inefficiency, its misuse can have serious implications for fundamental rights and the rule of law.

The future of AI in criminal justice lies in achieving a balance between technological innovation and constitutional values. AI must be used as a tool to assist human decision-making, not replace it. The ultimate goal should be to create a system that is not only efficient but also fair, transparent, and just.

In conclusion, AI should be seen as an enabler of justice, not a determinant of it. The human element must remain at the core of the criminal justice system, ensuring that justice is not only delivered but also perceived to be fair.

A crucial dimension in evaluating the role of Artificial Intelligence in the criminal justice system is its compatibility with the **Indian constitutional framework**. The Constitution of India guarantees fundamental rights such as the **right to equality (Article 14)**, **freedom of expression (Article 19)**, and most importantly, the **right to life and personal liberty under Article 21**. Any technological intervention, including AI, must operate within these constitutional boundaries.

The right to a fair trial, which is an integral part of Article 21, may be significantly impacted by the use of AI in judicial processes. If AI systems are used for decision-making or risk assessment without transparency, it could violate principles of natural justice, particularly the right to be heard and the right to reasoned decisions. Algorithmic opacity may prevent an accused from understanding the basis of a decision, thereby undermining procedural fairness.

Additionally, the use of AI in surveillance and predictive policing raises concerns regarding the **right to privacy**, which has been recognized as a fundamental right by the Supreme Court in *Justice K.S. Puttaswamy v. Union of India (2017)*. Unregulated use of facial recognition and data analytics may lead to excessive state surveillance, threatening individual autonomy and dignity.

From the perspective of **Article 14**, AI systems must ensure non-arbitrariness and equality before the law. However, biased datasets and flawed algorithms may lead to discriminatory outcomes, disproportionately affecting marginalized communities. This raises serious constitutional concerns, as any form of automated discrimination would be violative of the equality doctrine.

Therefore, it is imperative that the integration of AI into the criminal justice system be guided by **constitutional morality**, ensuring that technology strengthens rather than weakens fundamental rights. The development of AI policies must incorporate safeguards such as transparency, accountability, and judicial oversight to remain consistent with constitutional mandates.

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