
ARTIFICIAL INTELLIGENCE IN CRIMINAL JUSTICE: BALANCING EFFICIENCY WITH FAIRNESS AND ACCOUNTABILITY

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ABSTRACT

Integrating Artificial Intelligence (AI) into the criminal justice system represents both a revolutionary advancement and a profound challenge. This study examines the complex effects of artificial intelligence (AI) on a range of criminal justice-related topics, such as evidence processing, criminal investigations, predictive policing, and automated legal advice. By helping with evidence processing, expediting case management, and making more accurate predictions about criminal behaviour, Artificial Intelligence (AI) can improve the effectiveness of judicial procedures.

This study highlights the risks associated with algorithmic bias and the potential for AI systems to aggravate injustices in the criminal justice system in the absence of a legislative framework. The paper also delves into the ethical and legal challenges posed by the increasing reliance on AI, including invading privacy, the admissibility of AI-generated evidence, and the responsibility for AI-driven errors and challenges caused by using technology in a system where fairness and impartiality are paramount. This paper also suggests potential reforms or guidelines to ensure that AI is used ethically and legally within the criminal justice system and establishing robust regulatory frameworks that ensure transparency, and accountability. AI may be used for decision-making in the future, even though it isn't used in the current situation.

This paper discusses international practices in AI adoption reveals divergent approaches. This research underscores the need for a balanced approach that embraces the benefits of AI in criminal Justice while safeguarding the rights and freedoms of individuals. The paper concludes by proposing policy recommendations and future research directions aimed at harmonizing technological innovation with the fundamental principles of justice.

Keywords: Artificial intelligence (AI), criminal justice, Natural Justice, algorithmic bias, Judicial decision-making, ethical issues, legal frameworks, and predictive policing.

I Introduction

Artificial intelligence (AI) technology can be used to track content or a person's digital footprint and identify any odd activity. The purpose of law enforcement should be to prevent crime in the first place, not to apprehend criminals. There are two sides to the use of AI tools in criminal justice. Even though it has many perks, like better crime detection and fewer court proceedings, it also brings up important legal and ethical problems. Concerns like prejudice, transparency, and accountability must be addressed to guarantee that AI systems are equitable and just. Predictive policing has the potential to be a revolutionary technology that gives law enforcement the chance to reverse the trend of crime for the first time in history. However, if the information underlying this technique is erroneous any advantages will be outweighed by the risks. Motivated by worldwide developments, India has launched programs like SUPACE (Supreme Court Portal for Assistance in Court Efficiency)¹, which seek to use AI for legal research, document analysis, and case classification and AI-driven Voice Analysis Technology² used in Maharashtra during interrogations to detect stress or emotional patterns in suspects. Thus, putting these strategies into practice will aid in increasing the effectiveness of law enforcement organizations, creating AI-enabled databases, reducing procedural tasks, and boosting investigation processes. This study aims to illustrate the difficulties of artificial intelligence in this area by looking for a legal framework.

II Literature Review

1. Vedant Chaudhary (2024) - His study explores the transformative impact of AI technologies on criminal justice, focusing on areas such as law enforcement, forensic analysis, and judicial decision-making. Through a comparative analysis of AI applications across different countries, it examines how AI advancements are reshaping these domains.
2. Dhanya K S (2024) - Her study explores the consequences of implementing artificial intelligence in the world's legal systems and examined the extent to which the application of AI technologies and techniques has affected the administration of justice.
3. Another crucial area of study is how human judgment functions in AI-assisted decision-making. According to Green and Chen's (2019) analysis of judges' interactions with risk

¹ (<https://www.drishtias.com/daily-news-analysis/ai-portal-supace>, 2021)

² (<https://www.hindustantimes.com/cities/pune-news/ats-says-consent-not-required-for-voice-layer-and-psychological-analysis-on-arrested-drdo-scientist-101689964723845.html>, 2024)

assessment tools, the display of algorithmic suggestions can have a big impact on human decision-making, occasionally in methods that make biases worse.

4. In a similar vein, Osoba and Welser (2017) support the creation of AI governance frameworks that strike a compromise between innovative thinking and ethical principles. They put out a methodology that incorporates continuous assessment of AI systems, transparency, and multi-stakeholder engagement.

5. The application of algorithmic decision-making tools at different phases of the criminal justice process is one of the main topics of discussion in the literature. In their critical examination of risk assessment algorithms used in sentencing and bail decisions, Berk and Hyatt (2015) point out the dangers of sustaining systemic biases as well as the possibility of greater accuracy. Their research emphasises how important it is to thoroughly validate and continuously check these technologies to guarantee accuracy and fairness.

III Research Problem

Lack of laws and regulations governing AI tool's ethical and legal application in the criminal judicial system, thereby fostering greater transparency and fairness. Legal issues arise when there is over-reliance on AI tools.

IV Research Objective

To determine the ethical and legal issues of AI tools in criminal justice.

To determine the adoption and application of AI in the legal system

V Research Questions

- a) What ethical and legal consequences arise from using AI technologies excessively in the absence of a legal framework?
- b) How can accountability for faults in AI systems be effectively addressed within the legal system?
- c) What applications do AI technology currently serve in justice systems around the world?

VI Research Methodology

This paper utilizes Doctrinal research methodology, a tool used in legal research, to explore and support a thorough understanding of the topic. This paper uses secondary data sources such

as government publications, journal articles, websites, academic publications, and case studies to guide the research objectives and inquiries. The analysis of the study is primarily descriptive.

VII Artificial Intelligence Usage in the Criminal Justice System

Crimes have an impact on a country's reputation, economic development, and quality of life. Advanced technologies and inventive techniques for enhancing crime analytics are required to safeguard communities and secure society from criminal activity. AI has shown itself to be a beneficial tool for legal procedures. AI's use in the criminal judicial system has expanded. Globally, artificial intelligence (AI) tools have been introduced to eliminate imbalances that still exist in the criminal justice system. Numerous pending cases, the amount of manual labour necessary to carry out procedural processes, a lack of technological expertise in the investigation process, etc. are some of the limitations faced by the Criminal Justice System.

Artificial Intelligence is being used in legal research and case management. Legal professionals can use these tools to streamline administrative procedures, find important precedents, and analyze large volumes of legal data. The Supreme Court's effort to improve legal research and document analysis through the use of AI (SUPACE).

Since 2012, predictive policing technologies have been created and implemented in US cities like Chicago, Los Angeles, New Orleans, and New York³. According to reports, the United Kingdom, China, Denmark, India, and the Netherlands have implemented predictive policing systems locally. In order to discover patterns and possible crime hotspots, AI algorithms examine past crime data. By using this data, law enforcement may more efficiently allocate resources in an effort to stop criminal activity. The Delhi Police's Crime Mapping, Analytics, and Predictive System is a major step toward predictive policing.

A step toward more precise and effective forensic investigations is represented by CFSL's application of AI for forensic analysis. AI is employed in fingerprinting in many different ways, including drug recognition, DNA sequencing, fingerprint generation, evidence analysis, and document credential recognition.⁴ Photographs of crime scenes can be analyzed by AI algorithms to find important details like fingerprints, weapons, and patterns of blood droplets. Forensic analysts can recognize and classify objects in photos with high accuracy by using convolutional neural networks (CNNs). These algorithms can help with crime scene

³ (Rahman, 2021)

⁴ (Kavita Saini, 2024)

reconstruction and event sequence comprehension.⁵ Fingerprint analysis mostly depends on forensic specialists' knowledge. This procedure can be automated by AI-based fingerprint identification systems, which can accurately compare digital fingerprint scans to extensive databases. These methods help speed up identification and decrease human mistake.

Trinetra, an AI-enabled program that has a database of almost 5 lakh criminals with facial recognition capabilities, has been assisting the police department in Uttar Pradesh⁶. In 2017, Delhi Police partnered with AI Vision, a facial recognition program from INNEFU Labs that provides body and gait analysis. An artificial intelligence start-up based in India, INNEFU, is taking leverage of the country's fast growing need for facial biometrics by testing its technology on Indian faces.⁷ The Kolkata Police in India is currently increasing the use of AI-powered CCTV cameras for crime detection⁸. In Gujarat, police were able to identify and prosecute a citizen who had spit on and damaged public property with the use of an AI-powered CCTV camera⁹.

Due to its success in these domains, Artificial Intelligence (AI) is being promoted for use in courts to help judges speed up different legal procedures in order to solve the problem of growing pendency. AI is already saving legal professionals, such as law firms and solicitors, time and money. For example, legal professionals increasingly employ automated voice processing software to speed up note-taking and drafting. In a recent challenge between attorneys and an AI-powered mechanism to predict case outcomes, the AI-powered processor demonstrated the ability to do so with an accuracy of 86.6%, which was equivalent to the 66.3% accuracy of attorneys.¹⁰ This illustrates how lawyers will utilize AI in the future to counsel clients on the optimal legal course of action.

In *Jaswinder Singh v. State of Punjab*, the Punjab & Haryana High Court employed artificial intelligence to gather opinions on a criminal case. The high court validated its ruling on an accused person's bail application via ChatGPT. This is the first time ChatGPT has been utilized in India to make a decision about a bail application.¹¹

⁵ (Durrani, 2024)

⁶ (TRINETRA, an AI app for Uttar Pradesh Police Department, 2018)

⁷ (RIGANO, 2019)

⁸ (Kolkata cops to use camera with AI to detect crime, 2018)

⁹ (Gujarat: Ahmedabad Police to get high-tech Command and Control Centre with AI Integration, 2024)

¹⁰ (Maddipati Sri Seshamamba, 2022)

¹¹ (Prabhu, 2023)

7.1 A Few Instances of Artificial Intelligence being used in the Legal Field:

With the aid of an AI-enabled robot chatbot named "**FaXiaotao**,"¹² which provides clients with case analysis and assists them in finding attorneys, Wusong Technology in China is aiming to digitise the way courts operate.

In order to enhance its corporate/M&A business, the Singapore-based Wong Partnership also adopted AI technologies from London-based **AI firm Luminance**. The company employs technology to highlight parts of mergers and acquisitions transaction documents that need human inspection and involvement and to do due diligence on them.

At the Beijing Intermediate People's Court lawsuit centre, a robot named **Xiao Fa** was placed into service. It can respond to enquiries orally, receive input on its screen via a touchscreen or keyboard, and print papers¹³.

Supreme Court Vidhik Anuvaad Software, or SUVAS, is a technology that helps translate verdicts from courts into various languages by using artificial intelligence. This is another important attempt to make justice more accessible.

Law bot pro¹⁴, a website that is an AI-powered bot that can answer legal queries related to Indian Laws and give you answers relevant to questions

China declared in December 2019 that "**Internet courts**,"¹⁵ which do not require residents to appear in court, are currently deciding millions of cases. The "smart court" consists of artificial intelligence (AI)-powered non-human judges and enables participants to register their claims online and have their cases decided in a virtual courtroom.

Start-ups like **Near Law, Indian Kanoon, and Case Mine** are attempting to reimagine legal research by rapidly displaying the most pertinent cases through the use of Visual Search and the Case Ranking algorithm. To identify the top 50 cases, the system organizes and ranks over 300,000 case data from more than 20 courts and tribunals. The important 0.01% of situations that are pertinent to the user are efficiently identified using the novel method.

VIII Legal Implications of AI Use in Law Enforcement

AI has completely changed how legal systems function. Artificial Intelligence applications

¹² (Bracher, 2018)

¹³ (Robot gives guidance in Beijing court, 2017)

¹⁴ (htt2)

¹⁵ (Shi, 2021)

promise to increase the efficiency and accuracy of legal outcomes by streamlining legal activities, from aiding in legal research to sentencing decisions¹⁶. But this quick development in the use of AI in the legal industry also raises a number of legal and ethical concerns that need to be carefully considered and examined. While the degree to which AI is used in legal systems may differ from nation to nation, the difficulties it presents are often the same. The use of AI in the legal industry may have major consequences. Bias and unfairness, a lack of transparency, inadequate human oversight, consent difficulties, and individual autonomy are some ethical concerns. Legal concerns include cybersecurity, algorithmic accountability, AI personality, personal data protection, and the necessity of regulation.

The Over-reliance on AI tools without a proper legal regulatory framework raises significant legal and ethical risks.

Algorithmic Bias and Discrimination- AI systems are prone to bias because they are often trained on historical data. Over-reliance on AI could lead to unfair outcomes, particularly in cases involving marginalized groups, if the system perpetuates biases present in the data. AI systems can make mistakes due to flawed algorithms, inaccurate data, or system malfunctions. Over-reliance without a regulatory framework (rigorous testing and review mechanisms) could lead to wrongful convictions or unjust outcomes.

Legal Risk: Violation of fundamental rights, such as the right to equality (Article 14 of the Indian Constitution) or anti-discrimination laws in various jurisdictions, may arise if biased AI decisions disproportionately harm certain individuals or groups. In cases of AI-driven errors, the justice system could face legal challenges regarding wrongful imprisonment or unfair trials, potentially leading to appeals, retrials, or compensation claims.

Ethical Risk: AI could reinforce systemic discrimination, leading to unjust outcomes where certain groups face more punitive measures, fostering inequality in the justice system. AI errors can have life-altering consequences for individuals, especially in criminal cases. The United States uses the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) method to evaluate defendants' likelihood of recidivism risk. It has been accused, meanwhile, for displaying racial bias by excessively labelling African American offenders as high-risk in comparison to their white counterparts. This case brings to light the ethical problem of prejudice and equity in criminal justice AI systems.

¹⁶ (The Role of AI in Legal Research: Enhancing Efficiency and Accuracy, n.d.)

Miller vs. Alabama¹⁷

The 14-year-olds Evan Miller and Kuntrell Jackson were found guilty of murder and given life sentences without the chance of parole. The Supreme Court examined the constitutionality of such juvenile sentences, concentrating on whether mandatory life in prison without the possibility of parole violates the Eighth Amendment's ban on cruel and unusual punishments. The Court noted the developmental distinctions between juveniles and adults, including their immaturity, vulnerability to environmental factors, and ability for rehabilitation, in its ruling that such obligatory punishments are unconstitutional. The ruling highlights the ethical need to take these variations into account when determining sentences and also raises questions about the application of computerized risk assessments such as COMPAS, which might not sufficiently take into account the particular circumstances of juveniles and generate biased results. The court emphasized the value of individualized punishment above strict algorithms that ignore young people's particular developmental circumstances.

Lack of Legal Oversight and Regulation- Without a legal framework, there is no clear guideline on how AI tools should be deployed in the judicial system, leading to inconsistent and potentially harmful uses of the technology.

Legal Risk: The absence of regulatory standards could result in arbitrary or inconsistent use of AI in different courts or legal systems, potentially leading to discrepancies in justice delivery.

Ethical Risk: Without regulatory oversight, ethical standards in AI applications could vary widely, leaving room for misuse or unethical practices that degrade the quality of justice.

According to a recent news article, a lawyer from New York utilized ChatGPT for legal research and cited six cases in a brief that was sent to the court. However, none of the examples could be found by opposing counsel, and the lawyer was compelled to admit that he had not independently confirmed their legitimacy. The judge imposed sanctions on the guilty solicitors and penalized their whole law firm \$5,000. Therefore, lawyers should be careful while using generative AI for legal research.

Big Brother Watch and Others v the United Kingdom (2018)¹⁸**Important ruling on vast surveillance**

¹⁷ (oyez, n.d.)

¹⁸ (Big Brother Watch v. United Kingdom, n.d.)

The UK's bulk data collecting program was found to violate human rights law which was ruled in the European Court of Human Rights (ECHR) in the case of Big Brother Watch and Others v the United Kingdom. Following Edward Snowden's 2013 disclosures, the lawsuit contested the legitimacy of the UK's widespread monitoring techniques in light of Article 8 (right to respect for private and family life) and Article 10 (freedom of expression) of the European Convention on Human Rights. Significant flaws in the program's safeguards and oversight mechanism were discovered by the Court, highlighting the necessity of proportionality and strong protections in state monitoring operations. This decision highlights the necessity for AI technology to function under stringent legal frameworks that protect private rights and guarantee sufficient oversight, making it crucial in the context of artificial intelligence (AI) in the judicial system. The ruling establishes a standard for striking a balance between basic human rights and national security concerns, especially when it comes to the use of the latest technologies for data collecting and surveillance.

Violation of Natural Justice in Predictive Policing -AI systems used for predictive policing, which forecast potential criminal activity based on historical data, can lead to arrests, increased surveillance, or biased law enforcement practices without sufficient legal safeguards in place. In the United Kingdom, the police used an AI system called "HART" (Harm Assessment Risk Tool)¹⁹ rates individuals as low, moderate, or high risk for future offences based on information from 34 categories, including age, gender, and criminal history. Studies later showed that the system disproportionately targeted minority communities, leading to increased scrutiny and arrests without clear justification.

Legal Issue: Such uses of AI could violate the legal rights of individuals by subjecting them to police action or increased surveillance based on data rather than reasonable suspicion or evidence. These actions can conflict with legal protections against arbitrary arrests or unlawful searches under constitutional provisions like the Fourth Amendment (U.S.) or Article 21 (India).

Insufficient Accountability and Transparency- Many AI systems function as "black boxes," which means that even specialists cannot completely comprehend or see how they make decisions. Defendants, solicitors, and judges might not be able to closely examine the reasoning behind an AI's conclusion. A report by the European Parliament's Committee on Legal Affairs states that transparency in AI systems is essential to securing responsibility and equality in the

¹⁹ (UK police are using AI to inform custodial decisions , 2018)

decision-making procedures. It highlights that in order to preserve faith and legality, AI systems must provide transparent justifications for their conclusions.

Legal Risk: A fair trial may be violated by a lack of transparency. The transparency of the methods used to make legal decisions, like establishing sentencing or determining parole eligibility, becomes a serious issue when AI algorithms are used to assist in these processes. **Natural Justice** may be violated if the underlying logic of AI-driven conclusions is unavailable, making it harder for defendants to contest them.

Ethical Risk: It becomes challenging to assign blame for incorrect results when there is unclear accountability for biases or mistakes in AI choices, which might erode public confidence in the legal system.

Civil Society Group v. The Netherlands (The SyRI Case 2020)²⁰

The validity of the System Risk Indication (SyRI), a digital tool intended to identify welfare fraud by examining enormous datasets from many government agencies, was decided by the District Court of The Hague in the Netherlands on February 5, 2020. The use of the system was contested by civil society organizations, including the trade union FNV and the Dutch section of the International Commission of Jurists, who claimed that it disproportionately targeted low-income communities and lacked adequate transparency and privacy protections. The key dispute in the lawsuit concerned whether the SyRI infringed on Article 8 of the European Convention on Human Rights (ECHR), which protects the right to privacy and family life. The plaintiffs said that there had been an illegal invasion of privacy due to the system's usage of massive data processing without sufficient oversight or transparency. The SyRI legislation was found to have violated Article 8 ECHR by the court, which decided in favour of the plaintiffs. The court concluded that the system did not offer sufficient protection against privacy violations and lacked sufficient transparency. It implies that in order to protect against abuse and preserve individual privacy, any AI system used for surveillance or decision-making needs to be transparent and strictly regulated.

IX Accountability for Faults in AI systems

There is a growing chance of abuse or negative effects as AI systems become more independent and effective. These systems could seriously harm people or society at large if appropriate

²⁰ (van Bekkum, 2021)

accountability procedures are not in place²¹. The commission of an act is a crucial component of criminal offenses, and Accountability for faults in AI systems within the legal system can be effectively addressed by identifying and assigning responsibility to key developers involved in AI development. AI developers should be held accountable for faults related to flaws in the programming, or training of the AI system (e.g., biased algorithms, data corruption, or inaccuracies). To effectively establish accountability, the legal system can implement several strategy like Courts and legal systems should consider establishing Independent AI review boards or oversight committees responsible for regularly auditing and reviewing AI systems used in the legal process. These boards could:

- Monitor the accuracy, fairness, and reliability of AI tools.
- Assess potential biases and suggest necessary modifications.
- Handle complaints and investigate instances where AI errors or biases lead to unjust outcomes.

In healthcare, some countries have set up medical review boards to oversee the use of AI in diagnostics and treatment. Similarly, legal systems could establish an AI ethics and accountability board to review AI use in judicial contexts.

As of right now, India has no legislation specifically governing artificial intelligence. The Ministry of Electronics and Information Technology (MEITY), which is in charge of the executive agency pertaining to AI strategies, has established committees to develop a framework for AI policy²². Seven responsible AI principles have been devised by the Niti Ayog. These include safety and dependability, equality, non-discrimination and inclusion, privacy and security, responsibility, transparency, and the protection and upholding of good human values²³.

Following in-depth discussions with professionals from the fields of research, law, non-profits, civil society, and the corporate sector, NITI Aayog published the second section of its Responsible AI approach document in August 2021, which focused on putting ethical AI usage concepts into practice.

²¹ (Thomas, 2024)

²² (AI & Emerging Technologies Group, n.d.)

²³ (Adopting the Framework: A Use Case Approach on FRT , n.d.)

X Detectable Minor Offenses through AI Surveillance

In India, AI tools can assist in detecting and managing small-scale criminal cases, especially in areas where surveillance, real-time analysis can improve law enforcement's efficiency. The AI tool will examine CCTV footage for minor violations. Therefore, judges' workload will be reduced if they are simply able to impose fines or simple imprisonment.

Here are examples of minor criminal cases where AI tools can play a role in India:

Traffic Violations

- **Speeding:** AI-enabled speed cameras can automatically detect vehicles exceeding speed limits on highways and urban roads, generating fines with photographic evidence.
- **Red-Light Violations:** AI cameras at intersections can detect vehicles running red lights, creating real-time alerts.
- **Helmet and Seatbelt Non-Compliance:** AI can detect riders without helmets or drivers and passengers not wearing seatbelts, as mandated by Indian traffic laws.

An AI tool can make blunders in these areas:

License Plate Recognition (LPR) Systems

AI in LPR systems can misread plates, particularly due to low-quality images, weather conditions, or obstructed views, fraudulently affixing someone else's license plate leading to incorrect vehicle tracking²⁴. For example, an incorrectly identified vehicle may result in false accusations or unwarranted surveillance of an individual who wasn't involved in a criminal incident, or police may fine them unnecessarily.

Facial Recognition Systems

Facial recognition AI has been shown to have higher error rates, especially with people of colour, leading to false positives in criminal identification²⁵. For example, an AI misidentifying someone as a suspect could result in wrongful detainment or arrest, as facial recognition often serves as initial identification in police workflows.

²⁴ (How AI and ML are Transforming License Plate Recognition, 2024)

²⁵ (Fergus, 2024)

XI Recommendations

Regulatory Framework for AI and Technology Use in Criminal Justice- Establish a clear legal and regulatory framework governing the use of AI tools and other emerging technologies in criminal justice. This framework should specify permissible uses, provide safeguards against abuse, and enforce standards to ensure fairness, accountability, and transparency. Like, a certification process for AI-based tools, ensuring they are free from biases, particularly against marginalized communities, before law enforcement agencies can use them.

Bias Detection and Anti-Discrimination Mechanisms- Implement strong methods to detect and eliminate bias in technology, particularly in AI-driven tools, to prevent discriminatory practices against marginalized groups. A criminal defendant who believes that a facial recognition system wrongly identified them could have access to a formal appeal process where the technology and its use would be scrutinized by experts for bias.

Judicial and Law Enforcement Training on Technology- Provide mandatory training to Judges, prosecutors, defense attorneys, and law enforcement officials on the ethical use of technology and how far they can use it to protect fundamental rights. The National Judicial Academy could develop special modules on AI and tech-driven evidence for judges, focusing on admissibility, biases, and impact on Natural Justice.

Independent Oversight Bodies for Technology Use in Criminal Justice- Establish independent oversight bodies responsible for monitoring and evaluating the use of technology in the criminal justice system to ensure that fundamental rights are protected. Like, the oversight body could investigate and halt the use of a predictive policing tool that has been found to disproportionately target minority communities.

XII Future Direction

Future studies should concentrate on creating workable strategies for putting these ethical principles into practice in actual criminal justice environments. To completely comprehend the implications of these technologies, longitudinal studies looking at the long-term effects of AI tool integration on justice outcomes, legal professional abilities, and public faith in the legal system are also required.

Our research concludes that although AI has a great deal of ability to improve the effectiveness of criminal justice procedures, its current application frequently violates ethical principles and presents major threats to justice and the legal process. To overcome these obstacles, a

concentrated effort will be needed to create AI systems that are more accessible, responsible, and ethical, backed by thorough legal frameworks and continual critical assessment.

Conclusion

It is reasonable to believe that artificial intelligence-powered devices can assist judges in making decisions and lawyers in completing tasks at different points during a trial, which will ultimately help to cut down on the amount of time typically needed for a trial. AI has the potential to improve public safety by enabling more proactive and data-driven law enforcement, which would lower crime rates. However, in the absence of strong legal and moral roots, AI usage has the potential to worsen pre-existing prejudices and Public trust in the legal system. Practitioners and policymakers need to concentrate on creating thorough policies that deal with these problems, guarantee equity, and transparency, and encourage the legal application of AI. Certain studies show that artificial intelligence (AI) technologies, including face recognition, forensic analysis, predictive policing, and judicial decision-making assistance systems, greatly improve the efficacy and efficiency of criminal justice procedures. AI helps judicial bodies manage and decide cases, increases the precision and speed of forensic investigations, and allows law enforcement organizations to more strategically use resources. However, there are also significant drawbacks to these developments, such as privacy issues, biases in AI algorithms, and the requirement for responsibility and openness in AI decision-making procedures. Recently, the European Parliament made changes to the proposed Artificial Intelligence Act. With judicial approval, the proposed amendment would allow generative AI systems like ChatGPT to disclose information produced by artificial intelligence (AI) and prohibit the use of AI in biometric monitoring. Therefore, India should start addressing artificial intelligence on a global scale.

References:

Berk, R., & Hyatt, J. (2015). Machine learning forecasts of risk to inform sentencing decisions. *Federal Sentencing Reporter*, 27(4), 222-228.

Chouldechova, A. (2017). Fair prediction with disparate impact: A study of bias in recidivism prediction instruments. *Big data*, 5(2), 153-163.

Green, B., & Chen, Y. (2019). Disparate interactions: An algorithm-in-the-loop analysis of fairness in risk assessments. In *Proceedings of the Conference on Fairness, Accountability, and Transparency* (pp. 90-99).

Osoba, O. A., & Welser IV, W. (2017). *An intelligence in our image: The risks of bias and errors in artificial intelligence*. Rand Corporation.

Završnik, A. (2019). Algorithmic justice: Algorithms and big data in criminal justice settings. *European Journal of Criminology*, 17(5), 738-754.

<https://indiaai.gov.in/article/impact-of-ai-in-the-indian-legal-system-on-indian-constitution-day-2023>

<https://indiaai.gov.in/article/predictive-policing-and-crime-prevention-the-role-of-ai>

<https://vidhilegalpolicy.in/research/responsible-ai-for-the-indian-justice-system-a-strategy-paper/>

<https://nij.ojp.gov/topics/articles/using-artificial-intelligence-address-criminal-justice-needs>