

Use of Artificial Intelligence in Crime Prediction: Legal & Constitutional Challenges in India

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ABSTRACT

The rapid advancement of technology has transformed law enforcement and the administration of justice. Artificial Intelligence (AI) has emerged as an important tool in crime prevention through predictive policing, which uses algorithms to analyze data and identify possible criminal activities.

This research paper, titled "Use of Artificial Intelligence in Crime Prediction: Legal and Constitutional Challenges", examines the relationship between AI technology and constitutional safeguards. While AI can improve efficiency and crime control, it also raises concerns regarding privacy, data protection, accountability, and algorithmic bias.

In India, the use of AI in crime prediction must comply with constitutional rights, particularly Article 14, Article 21, and the right to privacy recognized in Justice K.S. Puttaswamy (Retd.) v. Union of India. The Constitution does not prohibit AI-based policing, but it requires such technologies to operate within the principles of legality, transparency, proportionality, and procedural safeguards.

This paper critically analyzes whether predictive policing aligns with constitutional values and human rights standards. It further examines the adequacy of existing legal frameworks in addressing challenges posed by AI-driven surveillance systems. The study concludes that India urgently needs a comprehensive legal framework to ensure the ethical, fair, and accountable use of AI in law enforcement while protecting democratic values and fundamental rights

KEYWORDS

AI-driven surveillance, Artificial Intelligence, Crime Prediction, BNS, Privacy, Constitution

1. INTRODUCTION

The security of a community is its topmost priority; hence, governments must take proper actions to reduce the crime rate. Consequently, the application of artificial intelligence (AI) in crime prediction is a significant and well-researched area.

The quick development of technology has completely changed how modern societies operate, and law enforcement is no exception. Artificial intelligence (AI) has become a potent tool in recent years that can improve decision-making, efficiency, and accuracy in a variety of industries. One of its most important uses is in the field of crime prediction, often known as predictive policing, where algorithms examine enormous volumes of data to spot trends and predict possible criminal activity.¹ The incorporation of AI into policing procedures represents a change from conventional reactive techniques to a more proactive and preventive strategy as India continues to develop as a technologically advanced country.

Conventional policing systems in India are under tremendous pressure due to the growing complexity of crime, fast urbanization, and population increase.² AI-driven solutions present a viable answer in this situation by empowering law enforcement organizations to enhance monitoring, maximize resources, and more successfully address possible threats. Several regions of the nation have already implemented initiatives like facial recognition systems, predictive analytics, and AI-based surveillance mechanisms, proving the usefulness of such technology in preserving public safety and order.

However, the development of AI in crime prediction is not without legal and constitutional concerns. The use of data-driven surveillance systems raises important questions regarding the right to privacy, fairness, accountability, and the potential for misuse. The recognition of privacy as a fundamental right in *Justice K.S. Puttaswamy (Retd.) v. Union of India* has added a new dimension to the debate, requiring that any technological intervention by the State must satisfy the principles of legality, necessity, and proportionality. Similarly, concerns relating to equality under Article 14 and due process under Article 21 necessitate a careful examination of how AI systems are designed and implemented.

Despite these challenges, it is important to recognize that technological advancement and constitutional values are not inherently in conflict. Rather, they can coexist within a well-regulated legal framework that ensures transparency, accountability, and protection of individual rights. This paper proceeds on the premise that Artificial Intelligence, when used responsibly, can significantly strengthen the criminal justice system in India. Instead of restricting its use due to potential risks, the focus should be on developing robust safeguards that enable its ethical and lawful application.

¹ Andrew Guthrie Ferguson, *The Rise of Big Data Policing: Surveillance, Race, and the Future of Law Enforcement* (NYU Press, 2017)

² National Crime Records Bureau (NCRB), *Crime in India Report*

Accordingly, this research paper aims to examine the use of Artificial Intelligence in crime prediction within the Indian context, analyze the associated legal and constitutional challenges, and argue in favor of its regulated adoption. It seeks to demonstrate that AI is not only a technological necessity in modern policing but also a viable and constitutionally compatible tool, provided it is implemented with due regard to fundamental rights and legal principles.

2. ARTIFICIAL INTELLIGENCE IN CRIME PREDICTION: CONCEPT AND MECHANISM

One of the 21st century's most revolutionary technologies, artificial intelligence (AI) has a profound impact on a number of industries, including criminal justice and law enforcement. AI in the context of crime prediction refers to the application of sophisticated computing systems that are able to analyze vast amounts of data, spot trends, and generate well-informed forecasts regarding possible criminal activity. AI-driven solutions provide a proactive approach by predicting crime before it happens and helping authorities avoid it, in contrast to traditional policing approaches, which are primarily reactive in nature.

Predictive policing, a key application of AI, involves the use of algorithmic models to forecast where and when crimes are likely to occur, and in some cases, who may be involved. This approach can be broadly categorized into three types: location-based prediction, which identifies high-risk areas or "hotspots"; person-based prediction, which assesses the likelihood of individuals being involved in criminal activity; and victim-based prediction, which anticipates potential targets of crime. These models are continuously refined through real-time data inputs, improving their accuracy and reliability over time.

The practical utility of AI in crime prevention is already visible in India. For instance, the Delhi Police has deployed Facial Recognition Technology (FRT) to identify missing children and suspects by matching images from CCTV footage with existing databases.³ Similarly, the Telangana Police has implemented AI-enabled surveillance systems and drone technology for crowd monitoring and risk assessment during large public gatherings, helping prevent potential law-and-order incidents.⁴

Another notable example is the use of predictive policing tools by the Maharashtra Police, where crime data is analyzed to identify hotspots and allocate patrol units accordingly.⁵ Additionally, initiatives under the Crime and Criminal Tracking Network & Systems (CCTNS) have enabled the integration of nationwide crime data, providing a strong foundation for AI-based analytics and informed decision-making.⁶

³ Delhi Police, Facial Recognition System for Missing Children and Criminal Identification, Ministry of Home Affairs Reports & Public Sources.

⁴ Telangana Police, Use of AI-Based Surveillance and Drone Technology in Policing, Govt. of Telangana Reports.

⁵ Maharashtra Police, Predictive Policing and Crime Mapping Initiatives, State Police Reports.

⁶ Crime and Criminal Tracking Network & Systems (CCTNS), Ministry of Home Affairs, Government of India.

3. AI TECHNOLOGIES USED IN CRIME PREVENTION AND THEIR ROLE

- **Machine Learning:** Learns from past crime data to identify patterns and trends. Helps predict crime hotspots and possible offenders.
- **Big Data Analytics:** Processes large volumes of crime-related data from multiple sources. Provides real-time insights for better decision-making.
- **Facial Recognition:** Identifies individuals using facial features from images or CCTV. Helps track criminals and find missing persons.
- **Predictive Analytics:** Uses algorithms to forecast where and when crimes may occur. Enables proactive deployment of police resources.
- **AI Surveillance Systems:** Monitors public areas using smart cameras and video analytics. Detects suspicious activities and sends instant alerts.
- **Natural Language Processing (NLP):** Analyzes text data like social media and reports. Helps detect threats and criminal communication.
- **License Plate Recognition:** Automatically scans vehicle numbers.
Assists in tracking stolen or suspicious vehicles.
- **AI-enabled Drones:** Provide aerial surveillance and real-time monitoring. Useful in crowd control and sensitive areas.

Understanding Predictive Policing

Predictive policing is a proactive strategy that uses data analysis, statistical modeling, and AI algorithms to forecast when and where crimes are likely to occur. It relies on historical crime data, geographical information, weather patterns, and other relevant factors to identify crime hotspots and patterns. AI-driven predictive models process this information to generate actionable insights for law enforcement agencies. The goal is to deploy resources effectively, deter criminal activities, and prevent crimes before they happen.

How Predictive Policing Helps in Crime Detection

- **Identifies Crime Hotspots:** Analyzes past data to find areas where crimes are likely to occur
- **Predicts Criminal Activity:** Forecasts possible crimes based on patterns and trends
- **Helps in Suspect Identification:** Highlights repeat offenders or high-risk individuals

- Improves Police Deployment: Guides where and when police presence is needed most
- Real-Time Monitoring: Uses AI with CCTV and data systems for quick detection
- Reduces Response Time: Enables faster action by anticipating incidents
- Prevents Crime: Stops crimes before they happen by early intervention

4. ADOPTION OF ARTIFICIAL INTELLIGENCE IN CRIME DETECTION

United Kingdom

United Kingdom has been one of the early adopters of Artificial

Intelligence in policing, particularly in the areas of predictive analytics and facial recognition. Several police forces, including the Metropolitan Police and Durham Constabulary, have experimented with AI-based systems to improve crime prevention and resource allocation.

One prominent example is the use of the Harm Assessment Risk Tool (HART) by Durham Constabulary, which assesses the likelihood of reoffending based on personal and criminal data.⁷ Additionally, predictive mapping tools are used to identify crime hotspots, enabling police to deploy officers more effectively.⁸ Facial recognition technology has also been deployed by police forces such as the Metropolitan Police and South Wales Police to identify suspects from large datasets.⁹

While these technologies have improved policing efficiency, concerns regarding bias, privacy, and accountability have also been raised, emphasizing the need for appropriate regulatory frameworks.¹⁰

United States

The United States is a global leader in the use of Artificial Intelligence in crime detection and predictive policing. Many law enforcement agencies use AI-based **tools** to analyze historical crime data and forecast criminal activity.

Predictive policing systems, such as data-driven crime mapping tools, enable authorities to identify potential crime locations and patterns.¹¹ Additionally, facial recognition technologies,

⁷ Durham Constabulary, The Harm Assessment Risk Tool (HART) (UK).

⁸ Liberty, Predictive Policing (UK).

⁹ Metropolitan Police Service, Live Facial Recognition Trials (UK).

¹⁰ Computer Weekly, Reports on Predictive Policing and Bias (UK).

¹¹ Brennan Center for Justice, Predictive Policing Explained (2019).

including systems developed by private companies, are widely used by law enforcement agencies for identifying suspects and solving crimes.¹²

Furthermore, integrated AI platforms combining surveillance systems, license plate recognition, and real-time data analytics have significantly enhanced the speed and accuracy of criminal investigations.¹³ Despite these advancements, concerns about civil liberties and algorithmic bias have led to increasing debates and calls for stricter regulation.¹³

Use of AI in Crime Prevention: International and National Data

United States (2026 – Real-Time AI Success)

In Kansas City Police (USA)¹⁴ AI platform integrated CCTV, license plate readers, and databases, helping track and arrest a carjacking suspect within just 40 minutes.

Used by 350+ police agencies across the U.S.

United Kingdom (2026 – AI Crime Detection & Prevention)

In Metropolitan Police Service (2026)¹⁵ AI tool analyzed police data and detected:

98 officers involved in misconduct/corruption

500+ officers flagged for suspicious activity, leading to arrests and prevention of internal crime.

USA (2026 – Investigation AI Tools)¹⁶

AI tool tested in 35+ U.S. police agencies:

Processed 25 million files (calls, records, financial data)

Reduced investigation time from years → months

¹² Clearview AI, Facial Recognition Technology Use by Law Enforcement. ¹³ National Institute of Justice, AI in Criminal Justice Reports.

¹³ American Civil Liberties Union, Concerns on AI Surveillance and Privacy.

¹⁴ https://www.thetimes.com/uk/crime/article/patrol-kansas-police-ai-peregrine-uk-33bz78r8p?utm_source=chatgpt.com

¹⁵ https://www.theguardian.com/uk-news/2026/apr/25/met-police-investigates-hundreds-officers-palantir-ai-tool?utm_source=chatgpt.com

¹⁶ https://www.washingtonpost.com/national-security/2026/04/10/ai-police-criminal-investigations/?utm_source=chatgpt.com

Punjab Police – AI Facial Recognition (2026)¹⁷

AI-based app (PAIS) used during night checking

Identified a suspect who gave a fake identity

Linked him to 2 snatching cases → immediate arrest

In one night: 27 suspects flagged, 7 offenders arrested

Uttar Pradesh Police – AI Crowd Monitoring (Kumbh 2025)¹⁸

AI-powered surveillance + command-and-control system

Used for real-time crowd control and risk detection

AI alerts helped prevent stampede-like situations

Also helped save 1,800+ lives through AI-based suicide alerts

Telangana Cyber Crime – AI Success (2025–2026)¹⁹

Use of AI tools in cybercrime investigation and prevention

Cybercrime cases reduced by 15% (2024–2025)

Financial losses also reduced significantly

5. Legal, Ethical and Operational Challenges of AI in Crime Prediction

The use of Artificial Intelligence in crime prediction raises several legal, ethical, and operational concerns. Legally, issues such as violation of the right to privacy, lack of a clear regulatory framework, and potential infringement of fundamental rights under Articles 14 and 21 pose significant challenges. Ethically, AI systems may suffer from algorithmic bias, leading to discrimination and unfair targeting, along with concerns regarding a lack of transparency and accountability in decision-making. Operationally, the effectiveness of AI depends on the quality and accuracy of data, and there is a risk of over-reliance on technology, which may reduce human judgment in policing.

Lack of Legal Framework: No specific AI law in India - risk of arbitrary use by authorities.

¹⁷ https://timesofindia.indiatimes.com/city/chandigarh/ai-powered-app-aids-mohali-police-in-night-checks/articleshow/130539213.cms?utm_source=chatgpt.com

¹⁸ https://timesofindia.indiatimes.com/city/lucknow/up-polices-kumbh-iccc-bag-skoch-gold-award/articleshow/126457967.cms?utm_source=chatgpt.com

¹⁹ https://timesofindia.indiatimes.com/city/hyderabad/second-edition-of-shield-to-focus-on-role-of-ai-in-tackling-cybercrime/articleshow/127916815.cms?utm_source=chatgpt.com

Right to Privacy (Article 21): AI surveillance (e.g., facial recognition by Delhi Police) may intrude into personal privacy.

Justice K.S. Puttaswamy (Retd.) v. Union of India²⁰ - Privacy is a Fundamental Right; AI must satisfy legality, necessity, proportionality

Data Quality Issues: Inaccurate or incomplete data- wrong predictions, false suspicion

Risk of Misuse: AI tools may be used for excessive surveillance or profiling

Example: Large-scale monitoring systems (e.g., Telangana Police AI surveillance)

Over-reliance on Technology: Reduces human judgment in policing

Accountability Issues: Difficult to fix responsibility for AI errors

Algorithmic Bias & Discrimination: AI trained on biased data may target certain communities or areas. Violates Article 14 (Right to Equality), Violation of Mental Privacy & Dignity:

Intrusive technologies may affect autonomy

Selvi v. State of Karnataka²¹ - Protects mental privacy and personal liberty

Lack of Transparency: Difficult to understand how AI reaches decisions

Due Process & Fair Procedure: AI-based decisions may affect liberty without transparency; Maneka Gandhi v. Union of India²²- Procedure must be fair, just, and reasonable.

6. Foreign Judicial Decisions

R (Bridges) v. Chief Constable of South Wales Police

Use of facial recognition by police was held unlawful due to: Lack of a clear legal framework, Risk of bias.

AI is not banned, but must be properly regulated

State v. Loomis

Allowed use of AI risk assessment tool in sentencing

But warned: AI cannot be the sole basis of decision

²⁰ Justice K.S. Puttaswamy(Retd) vs Union Of India on 26 September, 2018
<https://share.google/6913fa9KfXngUSLvj>

²¹ Selvi & Ors vs State Of Karnataka & Anr on 5 May, 2010 <https://share.google/kIlwZpZ8NXPPS0r8b>

²² Maneka Gandhi vs Union Of India on 25 January, 1978 <https://share.google/WlxefjEYR8uuB2A6R>

AI can assist, but human judgment is necessary

7. SUGGESTIONS

India should introduce a clear legal framework regulating AI in policing, ensuring compliance with constitutional rights.

Citizens should be informed about AI use to ensure transparency and trust.

Strong safeguards should be implemented to protect personal data and prevent misuse or unauthorized access.

Courts or independent authorities should monitor the use of AI in surveillance and predictive policing.

Clear guidelines must be framed for police on how and when AI tools can be used.

Police officers should be trained to properly understand and use AI technologies.

Justification for Use of AI in Crime Prevention and Detection

The increasing use of Artificial Intelligence in crime prevention and detection in India can be justified on both practical and constitutional grounds. While the right to privacy has been recognised as a fundamental right in *Justice K.S. Puttaswamy (Retd.) v. Union of India*, it is not an absolute right and is subject to reasonable restrictions in the interest of national security, public order, and prevention of crime. In a country like India, with a vast population and rapidly growing urbanization, traditional policing methods are often insufficient to effectively manage crime.

In this context, the use of AI technologies—such as facial recognition, predictive analytics, and surveillance systems—provides a more efficient and proactive approach to law enforcement. These tools enable faster identification of suspects, real-time monitoring, and better allocation of police resources, thereby significantly improving crime detection rates compared to conventional methods. For instance, AI-based systems used by agencies like the Delhi Police and Telangana Police demonstrate how technology can assist in timely intervention and prevention of criminal activities.

Furthermore, the constitutional framework permits reasonable restrictions on individual rights, provided they meet the tests of legality, necessity, and proportionality. Therefore, the use of AI in crime detection cannot be considered a violation of privacy per se, as long as it is implemented within a regulated legal framework and for legitimate state purposes. Instead, it should be viewed as an essential tool for modern governance, enabling the State to fulfill its duty of maintaining law and order and protecting citizens.

The right to privacy is not absolute, and its reasonable restriction for the purpose of crime prevention and public safety justifies the regulated use of Artificial Intelligence in modern policing.

8. CONCLUSION

Artificial Intelligence has become an essential tool in modern policing, enabling faster and more efficient crime prevention and detection. While concerns regarding privacy and misuse exist, the right to privacy is not absolute and can be reasonably restricted in the interest of public safety.

With proper legal safeguards and oversight, AI can be used in a fair and constitutional manner. Therefore, its regulated adoption is crucial for strengthening law enforcement in a rapidly evolving society.