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PREDICTIVE POLICING AND CONSTITUTIONAL MORALITY: AN EVALUATION OF AI-BASED CRIME FORECASTING TECHNOLOGIES IN INDIA

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I. ABSTRACT

The integration of Artificial Intelligence (AI) in law enforcement has led to the rise of predictive policing, an emerging technique that uses data analytics and machine learning to forecast potential criminal activity. While such innovations promise to enhance efficiency and prevent crime, they raise critical concerns in a constitutional democracy like India, where the values of liberty, equality, due process, and human dignity form the bedrock of governance. This paper critically evaluates the deployment of AI-driven predictive policing technologies in India through the lens of constitutional morality; a normative framework rooted in the transformative vision of the Indian Constitution. Focusing on initiatives such as CMAPS (Crime Mapping, Analytics and Predictive System), facial recognition, and algorithmic surveillance, the paper explores the socio-legal implications of data-powered policing. It examines how algorithmic bias, lack of transparency, and mass surveillance mechanisms pose risks to privacy, reinforce structural inequalities, and challenge the principles affirmed in landmark judgments such as Justice K.S. Putt swamy v. Union of India. Through doctrinal analysis and comparative insights from global practices, the study highlights the tension between technological advancement and constitutional safeguards. The paper argues that in its current unregulated form, predictive policing risks deepening systemic discrimination and undermining democratic freedoms. It underscores the urgent need for a rights-based AI policy framework, judicial oversight, and algorithmic accountability. By contextualizing predictive policing within the constitutional morality framework, this study seeks to initiate a discourse that prioritizes human dignity and constitutional values over mere technological expediency.

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II. KEYWORDS:

Predictive Politicking, Artificial Intelligence, Constitutional Ethics, Algorithm Bias, Right to Privacy, Monitoring, Human Rights, Indian Constitution, CMAPS, Criminal Justice Technology.

III. INTRODUCTION

In the digital age, advancements in technology have significantly influenced criminal justice systems worldwide. One such development is predictive policing, a technique that uses data analytics, machine learning algorithms, and artificial intelligence (AI) to forecast potential criminal activities. Originating in the United States and adopted in various forms by countries such as the United Kingdom and China, predictive policing has been hailed as a transformative tool for crime prevention and efficient resource allocation. However, its application has sparked global debates around privacy violations, algorithmic bias, and erosion of civil liberties.

India has also begun embracing this shift toward data-driven law enforcement. Initiatives such as the Crime and Criminal Tracking Network and Systems (CCTNS)[2], Crime Mapping, Analytics and Predictive System (CMAPS)[3], and efforts by the National Crime Records Bureau (NCRB)[4] mark significant steps in integrating AI into Indian policing. These technologies aim to modernize crime prevention, reduce response times, and detect criminal patterns more effectively. However, in the absence of a clear regulatory framework or public accountability mechanisms, their deployment raises significant concerns regarding constitutional validity and social justice. This paper seeks to address the following key research questions:

1. Does predictive policing align with the values enshrined in the Indian Constitution?

[2] Ministry of Home Affairs, Government of India, *Crime and Criminal Tracking Network & Systems (CCTNS)* https://ncrb.gov.in/en/crime-criminal-tracking-network-systems-cctns accessed 25 July 2025.
[3] S K Singh, 'Crime Mapping, Analytics and Predictive System (CMAPS) Implementation' *Delhi Police Operations Report* (2016).
[4] National Crime Records Bureau, *Crime in India Report 2022* (Ministry of Home Affairs 2023) https://ncrb.gov.in accessed 25 July 2025.

2. What are the legal and ethical risks posed by the institutionalisation of algorithmic bias?
3. How can AI-driven law enforcement tools be implemented without compromising fundamental rights?

To answer these questions, the paper adopts a doctrinal and analytical methodology, combining constitutional interpretation with policy analysis and empirical data. By evaluating the intersection of technology and law, it proposes a rights-based approach to embedding AI in India's criminal justice system.

IV. PREDICTIVE POLICING: CONCEPT AND GLOBAL TRENDS SECTION

In the era of rapid technological advancement, law enforcement practices are undergoing fundamental transformation through the integration of artificial intelligence (AI) and data analytics. This shift has given rise to predictive policing, a strategy that uses historical crime data, statistical models, and machine learning algorithms to forecast potential criminal activity, identify hotspots, and allocate police resources more efficiently.

Globally, predictive policing has been adopted in various forms. In the United States, software such as Prepolls has been deployed to predict crimes based on historical data trends and geographic patterns.[5] The United Kingdom experimented with the HART (Harm Assessment Risk Tool) system, which uses AI-trained data to predict an individual's likelihood of re-offending.[6] China has implemented one of the most expansive surveillance ecosystems in the world, integrating AI, facial recognition, biometric data, and social credit systems to monitor and predict citizen behaviour, raising serious ethical and privacy concerns.[7]

[5] Andrew Guthrie Ferguson, *The Rise of Big Data Policing: Surveillance, Race, and the Future of Law Enforcement* (NYU Press 2017).
[6] M Oswald, J Grace, S Urwin and GC Barnes, 'Algorithmic Risk Assessment Policing Models: Lessons from the Durham HART Model and "Experimental" Proportionality' (2018) 27(2) *Information & Communications Technology Law* 223
[7] Samantha Hoffman, 'Engineering Global Consent: The Chinese Communist Party's Data-Driven Power Expansion' (2019) Australian Strategic Policy Institute Report https://www.aspi.org.au accessed 25 July 2025.

While these systems aim to improve policing efficiency and response times, they have drawn significant criticism. Concerns include algorithmic bias, over-policing of marginalized communities, lack of transparency in AI decision-making, and the erosion of civil liberties. Empirical studies have shown that when trained on biased historical data, AI models often reinforce and perpetuate existing inequalities rather than eliminate them. Moreover, in the absence of strong legal safeguards, predictive policing risks violating fundamental human rights and democratic norms. These global developments serve as important reference points for evaluating the suitability and constitutionality of predictive policing systems in India.

V. PREDICTIVE POLICING IN THE INDIAN CONTEXT

One of the most notable implementations is the Crime Mapping, Analytics and Predictive System (CMAPS), developed by the Indian Space Research Organisation (ISRO) for the Delhi Police.[8]CMAPS integrates crime data with Geographic Information Systems (GIS) to identify high-incidence zones and assist in preventive patrolling and strategic deployment of resources. Similarly, the Telangana Police, particularly in Hyderabad, have deployed AI-powered facial recognition systems, drones, and Integrated Command Control Centres for surveillance-based policing.[9] These tools have raised significant concerns regarding profiling, lack of judicial oversight, and disproportionate targeting of socio-economically vulnerable populations.

A particularly controversial incident involved Delhi Police using facial recognition software during the 2020 Delhi riots, which reportedly operated with only 1% accuracy in identifying individuals, raising alarms about its validity and the potential for wrongful profiling.[10] The National Crime Records Bureau (NCRB) has also proposed the creation of a nationwide facial recognition database, further expanding

[8] S K Singh, 'Crime Mapping, Analytics and Predictive System (CMAPS) Implementation' *Delhi Police Operations Report* (2016).

[9] Internet Freedom Foundation, *Project Panoptic: Facial Recognition in India* (2021) https://internetfreedom.in accessed 25 July 2025.

[10] A Bansal, 'Delhi Police Used Facial Recognition with Just 1% Accuracy During Riots' *Scroll.in* (February 2021) https://scroll.in accessed 25 July 2025

the scope of predictive policing across India.[11] Despite such developments, India currently lacks a comprehensive legislative framework to regulate the use of AI in policing, including accountability mechanisms, data protection standards, and human rights safeguards.

These technologies are being deployed in a policy vacuum, without parliamentary oversight or meaningful public consultation, undermining constitutional values of transparency and accountability. As predictive policing expands in India, it becomes increasingly essential to subject such tools to democratic scrutiny and embed them within a rights-based legal framework. While the ability of future policing to increase law enforcement efficiency cannot be ruled out, its deployment in India is coming out without necessary constitutional security measures, transparency or moral investigation. The greater dependence on opaque algorithms, in association with the lack of accountability mechanisms, has raised the apprehensions of a monitoring state, where the estimates of innocence are replaced by algorithm doubt.

In the absence of clear rules, public debate, and judicial guidance, future policing risk becomes a tool for control rather than justice. Therefore, as India proceeds with its smart policing agenda, it is mandatory to balance between technological innovation and protection of constitutional rights. To ensure that the future policing is subject to legal investigation, moral standards, and it is necessary to maintain the rule of the democratic inspection law and prevent the misuse of technology in law enforcement.

VI. CONSTITUTIONAL MORALITY: A FRAMEWORK FOR EVALUATION

The concept of constitutional morality, rooted in the writings of Dr B.R. Ambedkar, represents a commitment to the values and ideals enshrined in the Constitution, beyond mere compliance with its text. Ambedkar emphasized that democracy in India can survive only when constitutional morality prevails over social or majoritarian morality. In modern jurisprudence, this concept has been invoked by the Supreme Court to interpret fundamental rights expansively and progressively.[12]

[11] National Crime Records Bureau, *Crime in India Report 2022* (Ministry of Home Affairs 2023).
[12] B.R. Ambedkar, *Constituent Assembly Debates* (CAD), Vol. XI, 25 November 1949.

In *Navtej Singh Johar v. Union of India*, the Court held that constitutional morality must prevail over public or popular morality in matters concerning individual rights and dignity.[13] Similarly, in *Indian Young Lawyers Association v. State of Kerala*, it was asserted that constitutional values are paramount in resolving conflicting traditions and beliefs.[14]

A critical judgment in this discourse is *Justice K.S. Putt swamy (Retd.) v. Union of India*, where the Supreme Court recognized the right to privacy as intrinsic to the right to life and personal liberty under Article 21. Justice D.Y. Chandrachud remarked:

"Privacy includes at its core the preservation of personal intimacies, the sanctity of family life, marriage, procreation, the home and sexual orientation."[15]

Predictive policing technologies, if implemented without legal safeguards, risk violating core constitutional values such as equality (Articles 14–15), due process (Article 21), and privacy. When these technologies rely on biased data, they reinforce systemic discrimination, particularly against historically marginalized communities. Moreover, the opacity of algorithms (commonly referred to as the "black-box" problem) prevents affected individuals from understanding or challenging AI-based decisions, thereby undermining accountability and procedural fairness.

VII. KEY CHALLENGES OF PREDICTIVE POLICING IN LIGHT OF CONSTITUTIONAL MORALITY

The use of historical crime data in predictive policing systems risks reinforcing pre-existing biases embedded in Indian law enforcement records. Communities that have historically been over-policed, such as Dalits, Muslims, Adivasis, and urban poor, are disproportionately flagged by AI tools as potential hotspots or high-risk zones.[16] This creates a feedback loop, where more policing leads to more recorded crime data, which further justifies surveillance in the same areas, despite no increase in actual crime.

[13] *Navtej Singh Johar v. Union of India* (2018) 10 SCC 1.
[14] *Indian Young Lawyers Association v. State of Kerala* (2018) 10 SCC 689.
[15] *Justice K.S. Putt swamy (Retd.) v. Union of India* (2017) 10 SCC 1, para 297
[16] Vidushi Marda and S. Narayan, 'Data in New Delhi's Predictive Policing System' in *FAT* Conference Proceedings (2020).

During the 2020 anti-CAA protests and 2021 farmers' protests, facial recognition technologies were deployed by Delhi and Uttar Pradesh Police to monitor and identify protestors, many of whom were later subjected to inquiry or detention without proper legal process.[17]Such practices pose a serious threat to the right to protest under Articles 19(1)(a) and 19(1)(b) of the Indian Constitution.

Further, the opacity of AI systems, referred to as the "black-box" problem, renders it impossible for individuals to understand or challenge the basis of decisions made against them. This violates the principle of Audi alteram partem, a foundational tenet of natural justice protected under Article 21.[18] Predictive policing, in the absence of legal safeguards, transforms into a tool of pre-emptive state control rather than democratic law enforcement. The chilling effect on civil liberties and the disproportionate targeting of minorities demands urgent institutional safeguards.

VIII. LEGAL AND ETHICAL PERSPECTIVES

Despite increasing adoption of AI-based tools in Indian policing, the country lacks a dedicated statutory framework governing their use. The Information Technology Act, 2000 contains limited data protection safeguards, namely, Section 43A (compensation for failure to protect data) and Section 72A (punishment for wrongful disclosure),but these provisions are inadequate to address modern AI-driven surveillance.[19]Likewise, the Criminal Procedure Code, 1973, does not account for automated decision-making, undermining procedural fairness when such tools are deployed without human oversight.

In contrast, international frameworks like the General Data Protection Regulation (GDPR) mandate transparency in automated decisions (Articles 13–15) and the right to human intervention, thereby preserving individual autonomy.[20] The UN Human Rights Council has also warned against algorithmic surveillance without robust legal

[17] Internet Freedom Foundation, *Project Panoptic: Facial Recognition in India* (2021) https://internetfreedom.in/project-panoptic/ accessed 25 July 2025.
[18] Solon Barocas, Moritz Hardt and Arvind Narayanan, 'Big Data's Disparate Impact' (2016) 104 *Cal L Rev* 671.
[19] Information Technology Act 2000, ss 43A and 72A.
[20] Regulation (EU) 2016/679 of the European Parliament and of the Council [2016] OJ L119/1, arts 13–15.

frameworks and stressed the importance of consent, transparency, and proportionality.[21]

From an ethical standpoint, core values such as transparency, explainability, and fairness are essential to preserve constitutional integrity. Yet, in India, most algorithms used by law enforcement remain opaque and un-audited, raising serious concerns under Articles 14 and 21.

Cases such as *Internet Freedom Foundation v. Union of India* have challenged the legality of facial recognition systems used by Delhi Police, citing their lack of legislative backing and potential for discriminatory misuse. These concerns were echoed in *Anuradha Bhasin v. Union of India*, where the Supreme Court affirmed the constitutional centrality of digital freedoms and proportional restrictions.[22]

IX. THE WAY FORWARD: POLICY RECOMMENDATIONS

As India rapidly integrates artificial intelligence into law enforcement, it is essential to develop a rights-based regulatory framework rooted in constitutional principles. The following reforms are proposed:

1. Enactment of a Comprehensive AI Law for Law Enforcement

A dedicated law must be introduced to govern AI use in policing, clearly defining boundaries, establishing redressal mechanisms, and ensuring compliance with constitutional safeguards. This law must go beyond policy directives and be enforceable through judicial oversight.

2. Mandatory Algorithmic Impact Assessments (AIA)

Inspired by the Algorithmic Accountability Act (USA), India should require that all AI tools used in public functions undergo independent impact assessments before deployment. These should evaluate risks to privacy, bias, and human rights.[23]

3. Independent Oversight Mechanisms

[21] United Nations Human Rights Council, 'The Right to Privacy in the Digital Age' A/HRC/27/37 (2014).
[22] *Anuradha Bhasin v. Union of India* (2020) 3 SCC 637.
[23] Algorithmic Accountability Act of 2022, US Congress Bill H.R.6580, 117th Congress.

Ethics Boards, Civil Society Advisory Panels, and Parliamentary Committees should be established to review and audit the deployment of predictive policing tools periodically.

4. **Transparency and Public Participation**

Law enforcement agencies must publish periodic algorithm transparency reports and engage with affected communities. These actions are consistent with the European Commission's Ethics Guidelines for Trustworthy AI, which stress explainability, fairness, and human control.[24]

5. **Training and Sensitisation of Law Enforcement**

Officers using AI systems should receive training on the ethical, legal, and human rights implications of predictive policing. Public accountability must be a core part of this education process.

X. CONCLUSION

The integration of Artificial Intelligence in law enforcement marks a significant shift in the landscape of criminal justice in India. Through a comprehensive examination of predictive policing technologies and their deployment, this paper has demonstrated that while such innovations may enhance operational efficiency, they pose critical threats to constitutional rights and democratic accountability.

By applying the framework of constitutional morality, this paper has shown that unchecked predictive policing exacerbates structural inequalities, reinforces algorithmic discrimination, and enables mass surveillance, all without sufficient legal oversight. Drawing upon jurisprudence such as *Putt swamy* and *Navtej Singh Johar*, the study underscores the centrality of dignity, equality, and liberty in assessing the legitimacy of AI-based policing.

The paper contributes to contemporary legal scholarship by offering a rights-based evaluation of AI tools within India's criminal justice system, grounded in both doctrinal analysis and international best practices. It proposes a roadmap for ethical

[24] European Commission, *Ethics Guidelines for Trustworthy AI* (April 2019)

AI deployment: one that mandates algorithmic audits, judicial scrutiny, and citizen participation.

The way forward lies in enacting robust legislation, ensuring transparency through independent oversight, and embedding constitutional values into the very architecture of predictive policing tools. The promise of technology must not override the rights of individuals. Instead, India must ensure that its path toward smart policing is both technologically sound and constitutionally just. *The future of AI in Indian policing is not only in technical advancement, but is in the alignment of a justified, equitable and inclusive society with the constitutional promise.*

IX. REFERENCES / BIBLIOGRAPHY

Cases

- *Justice K.S. Putt swamy (Retd.) v. Union of India* (2017) 10 SCC 1
- *Anuradha Bhasin v. Union of India* (2020) 3 SCC 637
- *Navtej Singh Johar v. Union of India* (2018) 10 SCC 1
- *Indian Young Lawyers Association v. State of Kerala* (2018) 10 SCC 689

Legislation

- Information Technology Act 2000, ss 43A and 72A
- Criminal Procedure Code 1973

International Instruments & Reports

- Regulation (EU) 2016/679 (General Data Protection Regulation), arts 13–15
- European Commission, *Ethics Guidelines for Trustworthy AI* (2019)
- UNHRC, 'The Right to Privacy in the Digital Age' A/HRC/27/37 (2014)
- Algorithmic Accountability Act of 2022, US Congress Bill H.R.6580

Government Reports

- National Crime Records Bureau, *Crime in India Report 2022* (Ministry of Home Affairs 2023)

- Ministry of Home Affairs, *CCTNS Portal* https://ncrb.gov.in/en/crime-criminal-tracking-network-systems-cctns accessed 25 July 2025
- S K Singh, 'CMAPS Implementation' *Delhi Police Operations Report* (2016)

Books and Journal Articles

- Andrew Guthrie Ferguson, *The Rise of Big Data Policing* (NYU Press 2017)
- M Oswald et al., 'Algorithmic Risk Assessment Policing Models' (2018) 27(2) *ICT Law* 223
- Vidushi Marda and S Narayan, 'Data in New Delhi's Predictive Policing System' *FAT Conference Proceedings* (2020)
- Solon Barocas et al., 'Big Data's Disparate Impact' (2016) 104 *Cal L Rev* 671
- Chinmayi Arun, 'AI and the Rule of Law in India' *Harvard JL & Tech Digest* (2021)

NGO Reports / News Sources

- Internet Freedom Foundation, *Project Panoptic: Facial Recognition in India* (2021)
- A Bansal, 'Delhi Police Used Facial Recognition with Just 1% Accuracy' *Scroll.in* (February 2021)
- The Hindu, 'Delhi Police Launches Predictive Policing Platform CMAPS' (2021)