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# The Future of Law Enforcement: Integrating AI and Human Intelligence

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**ABSTRACT**

Integration of Artificial Intelligence (AI) into law enforcement has revolutionized the policing system by doing more, such as efficiency, accuracy, and transparency among many others, than has always been done by human law enforcers. Predictive policing, facial recognition, and software to report automated crimes are AI technologies that make crime prevention more efficient and resource management more effective. However, the adoption of AI has led to big ethical and legal questions — about privacy violations, algorithm bias, and accountability. These concerns are relevant in a country like India that is diverse, and largely ruled by socio-economic and cultural factors that affect policing. This work examines the trajectory of technological advances in law enforcement, human and AI roles, and how these approaches should be integrated. The fact is that it underscores the fact that although in no way can AI ever replace human intelligence in matters of ethics, empathy, or decision-making in a situational context, it can feature the potential to amplify the operational capacity already within the capabilities of the human. There must be a strong regulatory framework to integrate AI into law enforcement to make this a transparent, accountable, and rights-respecting practice.

**Keywords**: Artificial Intelligence, Law Enforcement, Human Intelligence, Predictive Policing, Privacy Rights, Accountability

## Introduction

Today's version of law enforcement has come a very long way from the early days when local community mobilization in the form of watchmen and town criers existed. This evolution has passed through many phases that include better-organized police forces through to the use of forensic and other current techniques that show the ability of the police to change with society. Applications of technology especially in the recent past decades have seen most law enforcement organizations employ technological tools in their work. About these changes, AI is noted as a revolutionary invention that is poised to change how policies are carried out around the world. From simple records and information systems, Polices adopts advanced systems that are capable of processing enormous quantities of information, recognizing patterns, and delivering easy-to-understand results in real-time. The incorporation of AI into policing especially crime analysis and forecast is a wake-up call shift from the traditional model of policing where decision is informed by inferred data generated by an algorithm. Real AI applications such as predictive analysis, facial recognition, and smart surveillance systems show how they can improve operational capacity even now. As India oversees these developments, and the utilization of AI in its systems the applicability of AI should be carefully weighed against the legal, ethical, and societal principles that make up the rule of law.[1]

AI applicability is not a mere technological insertion into police work but the synchronization of artificial intelligence with humans. The importance of human intervention hence human intelligence especially law enforcement is that it offers qualitative analysis, judgment, emotional empathy, and ethical comprehension needed in various circumstances. For example, the factor that relates to the hypothetical ability of an officer to judge the situation based on being a living person, cultural background, and perception of others is still not within the reach of AI as of now. Therefore, AI in collaboration with a fresh human brain brings out a system that blazes in the fight against crime while, at the same time balancing legal provisions of human rights and natural justice. In a jurisdiction such as India with various challenges that affect its policing services including; limited resources available many forces, corruption, and regional diversities rooted in socio-cultural beliefs embrace of AI coupled with human supervision may improve the transparency and credibility of the policing services offered.

Key questions relate to the extent to which AI is a participant in decision-making within law enforcement, whether it threatens individual privacy rights, and whether it is built upon algorithmic biases. This brings into question one pertinent ethical question within the threat of outsourcing authority to machines. If the artificial intelligence surveillance system points at a specific person as a suspect, erroneously – who is to blame; the developers, the

[1] AI in Police Work, *available at:* https://scrb.bihar.gov.in/assets/AI%20in%20Police%20Work.pdf (last last visited on October 1, 2024).

managers, or the artificial intelligence? Speaking in terms of law, it relates to the provisions of the Indian Constitution Article of Equality before the Law and Protection of Life and personal liberty. Moreover, there are other business factors such as technological enablers, officer readiness, and social enablement centered on AI-driven decision-making.

## Evolution of Law Enforcement Technology

A analysis of the causes and impacts of modern socio-political reforms and technological advancements reveals their significant role in the evolution of law enforcement. Conventional policing strategies drew a lot of attention to human input, word workspace, and rudimentary forms of criminalistics. Such practices as beat patrols where the police officers patrol certain territories, sting recidivism on informants, and investigative broad practices where everything was done manually by picking physical evidence, and interviews. These approaches, while being fundamental, contained inbuilt flaws from the beginning that included the following: slow, biased, and prone to human error. It brought to bear the officers' experience and an understanding of the terrain, which when useful locally, was not scalable for broader criminal activities, especially in complex ones that involve organized crime or interstate ones. Further, traditional policing was an issue of resources; policing in countries such as India where the population density is higher than in some developed countries means that there are few cops per citizen making it hard for the police to monitor the population density 24/7 or to even respond to Criminal activities promptly. This has over time resulted in unduly long investigation periods and an overburdened justice system with a diminishing quality of police services which in turn affects the public perception of the police.

Technological integration emergence can be seen as the turning point in the development of law enforcement as it provided the ability to rely on tools that optimized both efficiency and accuracy[2]. Closed-circuit television (CCTV) cameras were installed to monitor criminogenic situations and react more promptly to continuous offenses occurring in large cities. The use of CCTV cameras, shown in the case of *Shafhi Mohammad v. State of Himachal Pradesh*[3] has been highlighted as one of the centrepieces by emphasizing its importance in the compilation of evidence which the Supreme Court identified as important in facilitating the improvement of transparency and accountability in investigations. Another big advancement is the use of body cameras that are used to record the interactions of police with the citizens they deal with this makes the police to be accountable and also facets the evidence often provided in the disagreements. This technology has been of great help when people have made complaints against authorities especially the police to reciprocate their actions to the laws in the society. Predictive policing is another facet of law enforcement that has been brought about by the use of technology; here, police use data to try and predict the likely areas where crimes will occur. This means that through evaluating past crime statistics, the police and other agencies of the law, ensure they use their resources where they are needed most to deter crime. Nevertheless, the application of predictive policing sparks legal and ethically compelling issues largely based on privacy and discrimination. Section 69 of the Information Technology Act, 2000 which permits interception, monitoring, and decryption of information should, however, be exercised bearing in mind the constitutional rights to privacy as enunciated in the judgment of *Justice K.S. Puttaswamy (Retd.). v. Union of India*[4].

The use of artificial intelligence in policing is the most recent and possibly the most innovative stage of the development of this technology. AI's adoption first started with its' more narrow and specific uses like automated facial recognition software of automated license plate recognition systems to boost surveillance. Many state police departments in India have embraced the use of AI-based facial recognition systems to identify people in real-time which has when amplified helped in the fast identification of criminals and even helped identify missing people. Nonetheless, the use of AI technologies in law enforcement is still in its early stages and varies from one state to another depending on the availability of funds, technical personnel, and equipment. AI in policing current use involves machine learning models that make predictions on crime trends, and natural language processing tools that analyze the vast intelligence data, while there are automated systems that can patrol physical space. One such example is the implementation of an analytical tool employing artificial intelligence that can detect the probability of crime and has been tried in cities that are outsourcing advanced technologies in the policing system like Hyderabad.[5]

All the same, there are some major complicated issues linked with the application of AI in policemen's work, especially regarding their accuracy and issues of bias. The algorithms, powerful as they are, in terms of trawling through massive sets of data to pick out patterns that might escape the attention of a human analyst, are only as objective as the input data. There is also a significant risk that if the data sets are not fully representative of society and minority groups, then the consequent predictions will religiously reproduce the injustice. This issue is quite relevant to the Indian context because research has found that socio-economic and geographical factors determine the police functioning in the country. For example, if an AI system is built almost completely with pre-existing crime data from economically disadvantaged areas, the AI system is likely to focus excessively on these areas thereby creating digital profiling. It cannot be overemphasized that there is a very strong need for appropriate guidance concerning the regulatory framework that prevents the use of such systems to constitute a violation of the rights under Part III of the Constitution of India. When it comes to the use of AI in law enforcement, it is falsifiable that the right legal frameworks that provide theories upon which regs, guidance, supervision, and award

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[2] Neill Jacobson, "The Evolution and History of Law Enforcement Technology", *available at:* https://www.openfox.com/the-evolution-and-history-of-law-enforcement-technology/ (Last visited on October 1, 2024).

[3] Special Leave Petition (CRL.) No.2302 of 2017.

[4] AIR 2017 SC 4161.

[5] Christopher Rigano, "Using Artificial Intelligence to Address Criminal Justice Needs", *available at:* https://www.ojp.gov/pdffiles1/nij/252038.pdf (Last visited on October 1, 2024).

structures could be established must be adhered to ensure that the use of AI is in tune with the constitution and other international human rights instruments as in the Digital Personal Data Protection Act, 2023.[6]

## Applications of AI in Law Enforcement

Policing is another area where the application of AI in law enforcement is considered most pivotal and that is predictive policing in which data analytics and machine learning are used to predict the likelihood of crimes in a particular. area. However, predictive policing is the way to analyze past crime records, societal behavior, and other factors to understand where and when a crime is possible. By taking a proactive stance they can better assign resources and may be able to lower crime rates and increase public safety. However, in India, the uses of predictive policing are not completely new as more and more police centers propel pilot projects in major cities including Mumbai and Delhi. For instance, the Delhi Police used big data analytics with the help of private technology companies to determine that there was a high probability of a specific type of crime happening and, therefore, beefed up patrols in such regions to cut on occurrences of certain crimes such as robbery and street crimes. But at the same time, much attention should be paid to the analysis of the legal and ethical implications of such technologies. Further, the application of predictive policing must be In a manner that does not violate Article 21 of the Constitution about the Right to Life and Personal Liberty where the use of the aforesaid technologies results in discrimination on any ground whatsoever. There is a need for fairness, openness, and integrity when using Artificial Intelligence in policing doubt to ensure public trust in practices involving the use of AI.[7]

AI in surveillance and facial recognition technologies has been revolutionary in influencing ways that suspects are identified much faster and more accurately than methods developed in the past. CCTVs set with AI-based facial recognition will check the footage and cross-check with the database to identify the culprit as a partially hidden criminal. This has become especially important for fast identification during such mass events as well as for tracking criminals crossing geopolitical borders. In India, the technology is being employed by police departments of Hyderabad and Bengaluru, airports, and railway stations for surveillance and security reasons.

AI has also been utilized in cutting down on the time required for administrative work by implementing; reporting and documentation. Police departments experience administrative pressures inclusive of writing reports, the logs for pieces of evidence that may take lots of time to be generated and could be well utilized in active investigations. Having the capability to automate these simple tasks, AI can help in increasing operational efficiency. Technologies like natural language processing (NLP) like transcribing notes or dictations into reports save a considerable amount of time and eliminate the chances of a human making a mistake. Advanced digital self-services have also been adopted regarding public correspondence, information provision, and, at times, the initial reporting submissions using artificial intelligence-based chatbots and virtual personal assistants. The state police in Maharashtra are now implementing AI-based chatbots for handling non-emergency disturbances so that the citizens can report a crime easily to the police for action The utilization of AI improves the accessibility of the policing services across the villages of Maharashtra, where it may not be possible to employ as many officers as are needed. It also reduces the lag time in citizen-police interaction, making this automation consistent and desirable. But legal issues have to be solved to use the AI-generated documentation as evidence most of which are likely to appear in the judicial process. By a provision under the Indian Evidence Act, of 1872, electronic evidence requires adherence to some parameters to be considered admissible in court therefore the systems employed for automated reporting should be scrupulously transparent, auditable, and compliant with the provisions of the act in order not to lead to any miscarriage of justice.[8]

There is another very important use of artificial intelligence in policing the identification of threats on social networks and the prevention of crime. As social networks accumulate large volumes of data, AI technologies can help find threats among this data, for example, in the form of a terrorist act, crime, or social unrest. Due to machine learning algorithms, police can track those who use the Internet to lure people into their scams before they succeed and cause harm. More recently social media platforms have become significant in the Indian social fabric especially given the ability to generate and at times, foment discontent that may turn violent, and therefore AI has further assumed the function of being a watchdog for these platforms. Policing has become increasingly sceptical about AI to police content that may spark violence after the events that happened in Delhi in 2020. Nevertheless, this application provokes legal and ethical concerns concerning freedom of speech, surveillance, and the right to privacy. Therefore, to sort out social media monitoring there is the need to consider the public order requirement enshrined under the constitution of India Article 19(1)(a) which Continues to protect freedom of speech and expression. However, there is a deficiency again in the judicial check that such systems should not cross the legal realm and restrict the right to speech or conduct unlawful surveillance. One of the main issues with AI implementation has to do with the way such tools can be used to maintain civil liberties and ensure an adequate level of security for citizens in India; working under the assumption of the above, a balanced approach to governance, as well as law enforcement, is required in this case.

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[6] Manoj Meena and Aishvarya Joshi, "AI Policing in Criminal Justice: Methods & Concerns in Crime Detection and Prevention in India", 2 *Journal of Artificial Intelligence and Law* 7-15 (June 2023)

[7] Artificial Intelligence Helping Law Enforcement: 3 Current Uses in Everyday Global Policing, *available at:* https://kustomsignals.com/blog/artificial-intelligence-helping-law-enforcement-3-current-uses-in-everyday (Last visited on October 1, 2024).

[8] Daniel Faggella, "AI for Crime Prevention and Detection – 5 Current Applications", *available at:* https://emerj.com/ai-sector-overviews/ai-for-crime-prevention-and-detection/ (Last visited on October 1, 2024).

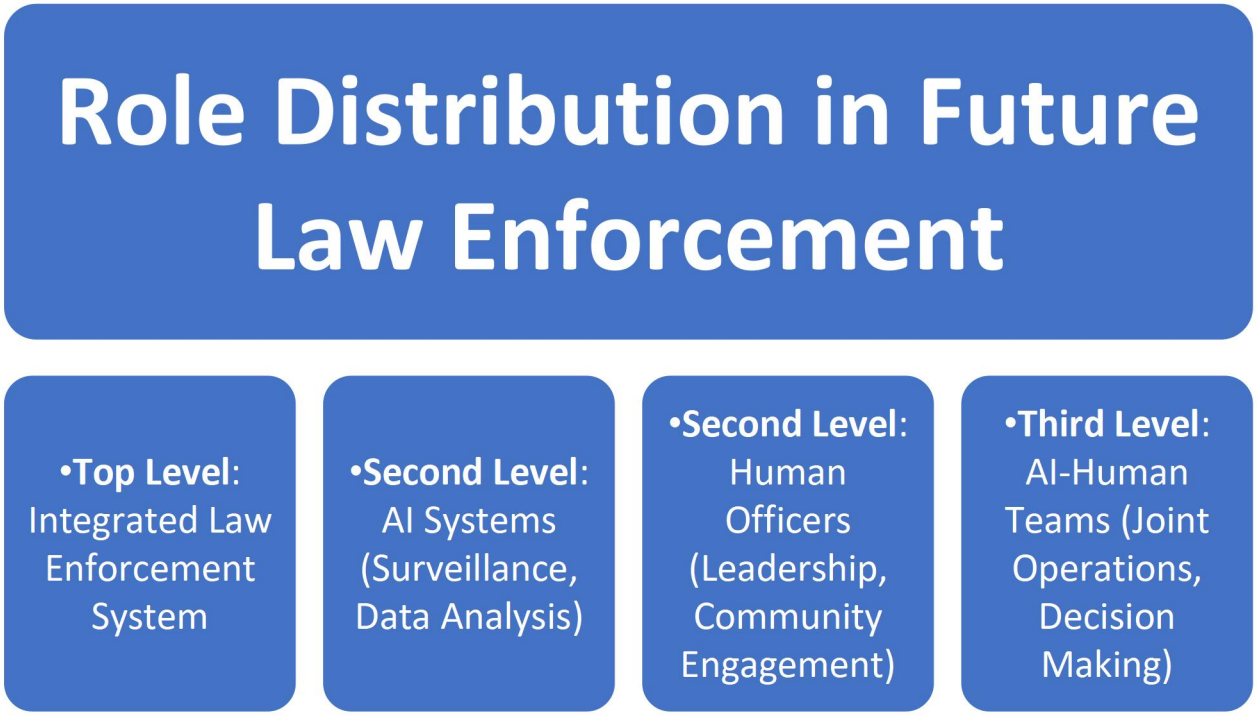


**Fig 1.** Role Distribution in Future Law Enforcement: Establishing Synergy Between AI Systems and Human Officers for Effective and Ethical Policing[9]

## The Human Intelligence Component

The adoption of AI in police work, however valuable as an innovation, cannot erase the recourses of human police officers whose instincts, interaction, and sympathy form a base that cannot be machined. Human officers have a predetermined role in maintaining law and order that entails enshrining legal provisions; relation-building within communities and making sure the citizens feel secure and their grievances heard. Policing relies so much on instinct, for instance, when one is trying to determine if certain behaviors inspire suspicion or in efforts to gauge the interaction within a particular neighborhood that may provoke or suggest susceptibility to criminal activities. Human officers have an opportunity to see trends and changes in team members' behavior processes that can be masked by the data. For instance, a police officer who is using a vehicle to move around a community can touch, see, or hear residents and notice rumors that might make residents suspicious of possible riots or disturbances, aspects that AI cannot perceive. Such instinctive policing seems particularly useful in parts of India with high ethnic and population densities where cultural sensitivity is very relevant. Such community policies like the community policing agenda that characterized most police forces today enlighten the public and show that police visibility- and approachability reduce crime and improve police-citizen collaboration during investigations. Such efforts are crucial in the cultivation of trust, such an important component of policing.[10]

However, the question of human touch and judgment in the line of law enforcement has never received better emphasis. Another disadvantage of using AI involves its inability to have empathy, to feel." In dealing with victims, witnesses, and even suspected individuals, empathy is often very vital. A crime victim especially one who has had to experience a traumatic event necessitates gentle treatment and most importantly, the events one has undergone have to be recognized and accepted as true. Empathy, listening, and the officer's willingness to reassure gives the necessary trust for example in police work and this in most cases can help in getting necessary information that is likely to be hidden otherwise. Another of the human factors within the intelligence process in policing that cannot be substituted for by AI is discretion. An officer is at liberty to determine when adherence to the letter of the law may not be the most desirable thing when responding to a case, for instance in a petty offense or where there are extenuating circumstances. For example, an officer may choose not to apprehend a juvenile because she considers that a better course of action would be to talk to a young man about his problem and possibly order him to paint a fence.

Policing decisions and choices are rather than choosing between two possible options in such a way that they choose the correct applicable law for a given case. Human officers possess an ethical reasoning ability which AI does not possess in their entirety. Ethical judgment requires an appreciation of the principles of justice and equity and the principle of proportionality which are relevant in dispensation of criminal justice. For instance, when an

[9] Christopher Rigano, "Using Artificial Intelligence to Address Criminal Justice Needs", *available at:* https://nij.ojp.gov/topics/articles/using-artificial-intelligence-address-criminal-justice-needs (Last visited on October 1, 2024).

[10] Difference Between Artificial Intelligence and Human Intelligence, *available at:* https://www.geeksforgeeks.org/difference-between-artificial-intelligence-and-human-intelligence/ (Last visited on October 1, 2024).

officer has been mandated to apply force he or she must do this in a manner that will prove ethical by considering some factors such as the extent of force to apply and the extent of harm likely to occur. In *Vineet Narain v. Union of India*[11], the Supreme Court emphasized the importance of proportionality and fairness in the actions of law enforcement authorities. Such decisions are not unique, and thus cannot be made using computations, logic, and likelihood. In cases where the vulnerable persons are children, the elderly, and persons with mental disabilities it becomes even more necessary to uphold ethical judgment. While working on these cases, an officer should steel the nerve to enforce the provisions of the law to the letter bearing in mind that some offenders do not have the mens rea or the knowledge of the consequences of their action and at the same time ensure that justice is served to the offenders with compromise.

Even today there are many situations when a decision has to be made by people and to be delivered with the help of their subjective core, not AI. Suppose there is a need to deal with something, for example, in a bargaining context or a kidnapping or an assault situation where the best possible response may require understanding of the circumstances and a measure of sensitivity. In such stressful situations, the possibility that the negotiator – a police officer – can assess the motivation of the people involved, make contact, and apply techniques of negotiation, will make a crucial difference between a non-violent and a fatal outcome. Ethical and socio-affective computing, employed by Al, can merely continually run ineffective algorithms to make decisions in such situations without reflecting, as human intuition does. Another example is the role of apology in the process of argument construction and how it impacts the language used by individuals during criminal actions. It is sometimes sufficient for a human officer to take into account how a suspect looks, how they have lived their life, and the circumstances of the crime to decide whether a suspect's actions were intentional or if it was an accident—something that an AI cannot do because it does not know how the human mind works. Such decisions not only have an impact on the procedures of the investigation but also on future legal actions which stress the subject that a human officer must be engaged in decision-making processes.[12]

Furthermore, the question of responsibility in law enforcement entails reporting at some human level and decision-making. Accountability acts as a safeguard over oppression and makes it impossible for people in authority to whimsically make certain decisions that they know are wrong or may lead to certain results, and in case they err in judgment, there is usually a legal way of dealing with them. For all the efficiency that is characteristic of AI systems, none of them can be made liable for the outcome of the decisions that they make. Moreover, the human officers take responsibility for the actions carried out based on the recommendation of the AI. For instance, where AI outputs are used to lead investigators to a suspect, it remains the duty of the human detective to confirm that information, that due process has been followed, suspects' rights have not been violated. The Bharatiya Nagarik Suraksha Sanhita, 2023 lists some procedures to be followed during investigation and arrest to ensure justice. Sections 187 and 192 of the BNSS, 2023 stipulating a record of the investigation and steps taken for proper recording in law enforcement situations also argue for the requisite human influence in documenting a proper justification of every move taken in the name of justice.

## The Integration of AI and Human Intelligence

The concept of combining human input and strong artificial intelligence in policing; is a significant development in the policing system, progressive enough to create a better offer for the community essential to successful policing. AI is a tool that helps human officers in decision-making by enlightening them with real-time information obtained from analyzing large volumes of data which would be inconceivable for man alone. AI brings thinking capability in terms of pattern detection, risk evaluation, and threat assessment, thus being an effective complement to conventional policing. For example, it can predict from the crime databases, social media posts, or even surveillance and direct them to the crime-prone areas leaving them to enforce the law nearer to crime scenes. In the context of predictive policing, AI algorithms can make suggestions on where to deploy police resources effectively, to help officers decide where to deploy their personnel. Similar integration has been observed in metropolises including Delhi, where the authority has used predictive analytics to pinpoint areas of felony such as theft and physical assault, creating provisions to lessen these occurrences. However, AI's role is not only to help predict; it brings an additional procedure of enriching analysis of officers that makes the decision more balanced and contains a strategic approach to crime prevention.[13]

The use of AI and human intelligence as separate but connected approaches is best explained through the use of case studies featuring the synergistic advantage of integrating the two. For example, law enforcement in Hyderabad was able to use the prevailing facial recognition system that is based on the usage of AI interfaces for surveillance to identify suspects that were roaming around the public space and enhance the solutions of several cases. This plays a critical role in, for example, searching through heaps of data that have been gained through CCTV cameras and recognizing people that are described or on the list of wanted, which if done by hand, would be incredibly time-consuming and demand lots of staff. It only comes in at the stage where officers assess the AI-derived information and determine the identity, as well as, the course of action. This integration guarantees that the decision-making process is never reduced to simplistic calculations as the final discretion lies with human officers who can consider the circumstances that exist within an industry, think about them, and bring enforcement actions into compliance with the law. AI can therefore complement the personnel of the law enforcement agencies in improving their efficiency without absolving them of their humanity in matters of ethical decency and compassion.

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[11] AIR 1997 SC 3427.

[12] Robert J. Sternberg, "Components of Human Intelligence", 15 *Cognition* 1-48 (1983).

[13] Carolyn Norton, "Combining AI and Human Intelligence: Adding Value in the Age of Automation and AI" April 20, 2023, *available at:* https://www.velosio.com/blog/combining-ai-and-human-intelligence-adding-value-in-the-age-of-automation-and-ai/ (Last visited on October 1, 2024).

This would especially be important in a place like India where social and cultural factors form a very large basis for crime and policing, something that could only be understood by giving human intuition to machines.[14]

However, transforming AI technology into a law enforcement paradigm is not without its problems; chief among them being the technological- AI systems' constraints and the general efficiency and effectiveness of the systems. One of the larger issues with AI is that the output of these systems is only as good as the data set used in the training process and thus if a biased set of data is used, they will predict equally biased results and therefore act discriminatively. In India, data practices differ drastically and data quality can be poor; there is a real danger that AI systems will be trained on bad population samples. This limitation can give rise to biased outcomes, including over-policing of some areas or specific groups, outcomes that are not only unfair to citizens but also scare away public confidence in the police. Also, AI systems can make mistakes and the results of this can be very dangerous if an incorrect decision is made in law enforcement meaning that someone is arrested when they should not be or worse the police use force when it is unnecessary. To minimize such risks, there is a need to have proper human interventions to check the information collected and analyzed by the AI before implementing the same. The Bharatiya Nagarik Suraksha Sanhita, 2023, pays much attention to the aspect of responsibility of the law enforcing agencies in respect of any action for investigation, which mandates a provision for every act of investigation to be recorded supported by reasons thereof. However, similar to the accountability principle earlier discussed, this accountability also has to be applied to AI systems and human officers' main function will involve reviewing the content generated by an AI system and identifying if it is compliant with legal and ethical standards.

The fourth major issue facing the implementation of AI in law enforcement is that to get the most out of AI it has to be utilized correctly, and this requires training the officers on how to use it. It is the people who work behind it that determine how lucky they are for AI and without adequate training, the law enforcers will probably misuse the tools or not harness all possible features of the technology. Perhaps, training programs should include not only the technical aspect of the usage of AI but also the practical aspect concerning the ethical aspect of the decision made by the means of AI tools. Superiors should be ready to train their officers to read AI outputs critically; to be aware of AI's drawbacks; and to introduce AI into the overall decision-making system. This is especially relevant since AI tools might come up with results that are quite 'unintelligible', especially to a layman with no learning in computer science or mathematics. When officers are trained, it becomes easier for law enforcement agencies to maximize the gains of AI integration while at the same time keeping off some of the risks associated with AI misuse or wrong interpretation of results.[15]

A synergistic combination of AI and HI also shows tremendous potential for increasing throughput and decreasing prejudices in policing operations. Of all the strengths noted in adopting AI, one major strength is the fact that the AI system does not bring human prejudices into its analysis. Per the research, human officers are polluted with conscious or unconscious bias both in training and professionalism, which causes them to act or judge selfishly. The application of AI diminishes the adverse effects of aforesaid biases since AI decisions are not driven by subjective estimates but based on the analyzing data. For example, decisions such as staffing or resource management, can be made on a statistical rather than impressionistic basis which will likely decrease discriminating actions. However, it has been established that AI systems themselves may be pro-bias if and only if the data used during the baseline process is Prejudiced. Thus, the general concept of AI elimination is incomplete without focusing on the possibility of making datasets more diverse to guarantee that an AI system is not influenced by any bias.

However, the system of AI allows for enhancing representational accountability in police work. AI-driven systems are effective in keeping records of the information and the scientific process to arrive at any decision. The information when used in this manner can go a long way in prospects to critically Scrutinise the activities of police and other security agencies to fully satisfy legal requisites and ethical considerations. Yet another example of how technology can aid the realization of accountability is through the use of body-worn cameras that include AI. These cameras may also capture the communication between officers and people in society and could be useful just in case a disagreement arises or in case someone complains about the officer's behavior. Such level of documentation can act as a check on those in authority as well as provide useful evidence in the event an officer is challenged on the actions he took in the line of duty. However, these measures are only effective if there are legal regulations and rules for AI operations that law enforcement agencies in the framework of their functioning are obliged to follow. The Information Technology Act of 2000 and the proposed Data Protection Bill have paved the way for regulating technology use in law enforcement, but further amendments are required to address new issues arising from the integration of artificial intelligence.

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[14] Carolyn Norton, "Combining AI and Human Intelligence: Adding Value in the Age of Automation and AI", *available at:* https://www.velosio.com/blog/combining-ai-and-human-intelligence-adding-value-in-the-age-of-automation-and-ai/ (Last visited on October 1, 2024).

[15] S. Rawas, "AI: The Future of Humanity", 4 *Discov Artif Intell* 25 (2024).

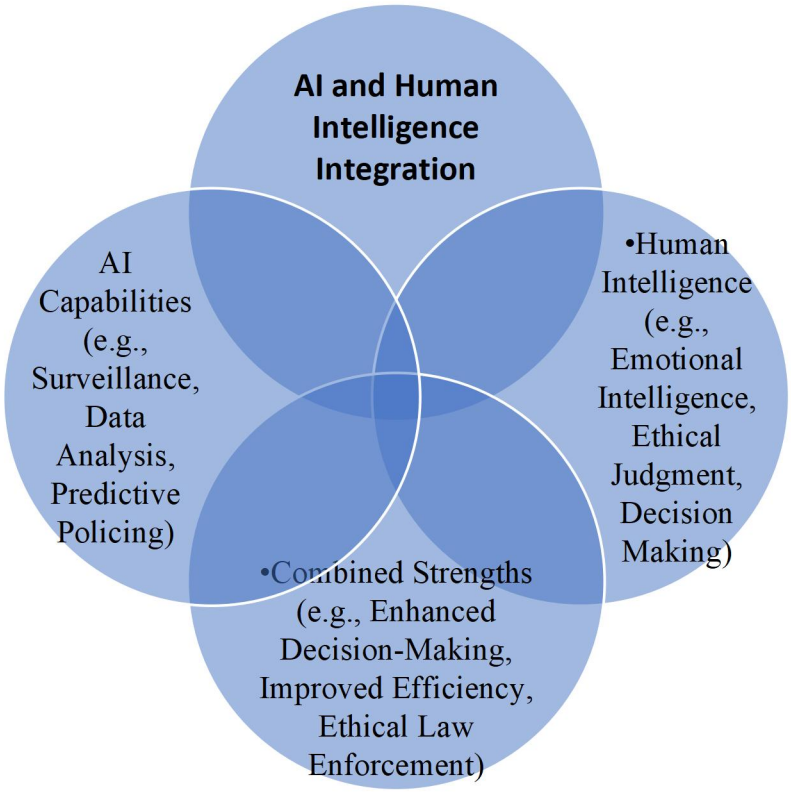


Fig 1. *"Integrating AI and Human Intelligence: Harnessing the Power of Technology and Human Insight for a Balanced Law Enforcement Approach"*[16]

## Ethical and Legal Challenges

Every integration of AI into law enforcement is a set of ethical and legal concerns that cannot be ignored because the utilization of AI's potential would mean the sacrifice of certain common human rights. However, one of the most important issues is privacy. Policies involving the use of Artificial Intelligence based surveillance technologies like face recognition systems, predictive policing, etc., are a serious threat to the rights of Citizens. These technologies normally harvest large quantities of data such as personal information without prior consent. The largely integrated capability and effectiveness of AI and surveillance systems enable authorities to monitor and follow individuals and behaviors, as well as consider how the individuals will act next, which has effectively raised concerns over privacy violations. In India, the right to privacy was declared part of Article 21 of the Constitution of India in the case of *Justice K.S. Puttaswamy (Retd.) v. Union of India*. This judgment once again reaffirms the proposition well established that any interference with privacy rights must be lawful, necessary, and proportionate. The application of AI in policing especially where policies encompass mass surveillance should therefore aspire to such standards in order not to infringe on citizens' rights to privacy. Even with this check by the constitution of India, the country still does not have a comprehensive data protection law that would adequately provide legal restraints on the use of AI-driven surveillance devices. Current laws such as the Information Technology Act, of 2000 and rules made there offer some shield against unauthorized access to information and misuse of such information but these do not completely answer the problem of AI. In striving to mitigate the risks of having individual credit information records, the recently passed Digital Personal Data Protection Act provides a framework on how personal data shall be collected, stored, and processed, and therefore the existence of such records raises a concern in as much as the privacy of the individual is concerned provided there is no law Protecting personal data in the various Countries.[17]

One of the most important ethical concerns of applying AI in policing is algorithmic bias. It is found that AI systems can only provide accurate results as the data used to train them and hence if the data is biased AI will also be biased. In the Law enforcement system, for instance, bias in AI technology results in prejudiced practices that include increased police presence and wrong suspect identification. This is even more disconcerting in a diverse country such as India because differences in socio-economic and cultural realities can simply be ensconced in unfair data sets. For instance, if the crime data accumulated contains instances majorly of crimes committed in economically deprived areas, an AI model created from this data will end up posing the same inequality. The prejudices and discriminative tendencies have extreme legal consequences. Said mistakes in the case of AI-based identification infringe on the principles of natural justice and the right to equality guaranteed under Article 14 of the Indian constitution.

[16] 10 Ways Humans and Artificial Intelligence Can Work Together, *available at:* https://www.manchesterdigital.com/post/dalecarnegienorth/10-ways-humans-and-artificial-intelligence-can-work-together (Last visited on October 1, 2024).

[17] C. Yip, N.R. Han, and B.L. Sng, "Legal and Ethical Issues in Research", 60 *Indian J Anaesth* 684-688 (2016).

Implementation of skewed AI into policing disregards the policy of equity as well as exposes innocent persons to unfair treatment. One must strive to ensure that the datasets used in training the AI systems are balanced enough to avoid these risks. In addition, independent reports on AI bias must be required to minimize bias in the selected technology for justice instead of prejudice. Other areas include a requirement for more transparency in the AI decision-making process such that external parties may also review it.[18]

Deciding on the accountability and responsibility of the AI in use by the police force becomes vital. AI systems cannot be held liable or punished for their actions in the same way that human officers can. When an autonomous decision process has made a wrongful decision—regardless of whether it was to arrest an innocent person, or to identify the wrong suspect—, it is important to know who is to blame. In whose hands should the whole blame lie: with the developers who created the AI, the law enforcement agencies that used it, or the officers who acted based on the tool's results? This lack of clear responsibility presents major concerns to the justice system, especially in the delivery of the justice enterprise. Another important act is the Code of Criminal Procedure, 1973 (now Bharatiya Nagarik Suraksha Sanhita, 2023), which, along with explaining the rules and procedures of investigation, explains the procedures of officers' accountability by observing the documents and explaining the causes for the chosen actions during registration. This principle must therefore apply to artificially made decisions also especially those made by artificial intelligence. In this regard, human supervision is an essential function so that relevant signals generated by AI tools are checked before any action is taken. Supervised by human officers, the AI will need to be presented with complex feedback and analysis on its advisor's recommendations, as well as instruction on the context, ethical factors, and ramifications of the action for its officers. This omission is required to rule out acts of injustice enforced by the output of faulty AI and to guarantee that all police decisions are legal and ethical. It shall also be necessary to set out the expectations of different cops, police forces, manufacturers of the technologies, and AI developers before the implementation of the technology to ensure there is accountability for the use of the technologies.

The use of AI in policing also brings unique human rights concerns into account because of issues to do with the infringement of civil liberties. It is important to caution that without specific protective measures, AI technologies can undermine rights such as freedom of speech, assembly, and protection against unlawful imprisonment. For example, the automation of surveillance systems such as monitoring their activities on social media may potentially erect rd a situation where people are profiled for their activities and may refrain from expressing themselves for fear of coming under surveillance. All such practices would be violating Article 19 of the Constitution of India – the right to freedom of speech and expression. Likewise, predictive policing where decisions are made before a crime is committed based on an AI's risk assessment of a person of crime, provides legal actions against such a person despite poor evidence or proof of any wrongdoing and thus is discriminatory of the principle of the presumption of innocence. AI must therefore be regulated, alongside basic human rights to eliminate any abuse and keep law enforcement practices legal. The implementation of AI must adhere to certain rules, namely judicial control, an open process of decision-making, and compliance with legal guidelines. The action must be controllable and reversible if it relates to human rights, as per the constitutional requirements of legality, necessity, and proportionality.

## Legal Framework and Regulations

This is still an emerging field of law globally, as well as in India, and thus the challenges best illustrated as follows: The current standing of AI in law enforcement has slightly different Legal structures depending on the country of the law enforcement agency in question; some countries have fully established guidelines that lay down how AI should be used, while some countries are still struggling to deal with the legality of deploying AI. On the international level, the most important effort in the regulation of AI was made by the European Union which proposed the AI act that intends to categorize AI based on risk potentiality and enforce stringent guidelines for High-risk applications of AI including the use in police forces.[19] This legislation focuses on the principles of openness, reporting, and human control of artificial intelligence systems. The EU's General Data Protection Regulation (GDPR) has also an important function in governing the collection, processing, and use of personal data which is one of the vital facets of AI-aided law enforcement functions. On the other hand, the US has not adopted a single and unified approach insofar as AI legislation and regulation are concerned because the various states formulate their laws on the use of these technologies by policing authorities. The concern in the USA has chiefly revolved around clarifying the development, effectiveness, and inequalities in AI systems.

There is no legal regulation of the use of AI and its application in law enforcement in India at this point as it is a relatively emerging topic and no particular laws regulating this aspect have been passed for the police and other Law enforcement agencies. The principal law governing data protection is the Information Technology Act of 2000 which relates to the protection of sensitive personal data or information. Nevertheless, this law is quite narrow and does not fully answer the contemporary concerns in connection with artificial intelligence, for instance, the issue concerning algorithmic explanations and responsibilities. A new law called the Digital Personal Data Protection Act, 2023 has been passed to enhance the body of data protection legislation and regulation and contains provisions for use by law enforcement. This Act, if passed, would be a laudable first step towards guaranteeing that AI-powered policing does not generally invade people's privacy. Additionally, the Code of Criminal Procedure, 1973 (Now, The Bharatiya Nagarik Suraksha Sanhita, 2023) and Indian Evidence Act, 1872 (Now, The Bharatiya Sakshya Adhiniyam, 2023) give procedural framework and evidence respectively to the enforcement agencies but these acts have not included provisions regarding the use of AI as in the case of admissibility of evidence which has been generated from the AI, or the responsibility that lies on the officer using the AI technologies. These concerns

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[18] S. Gerke, T. Minssen, and G. Cohen, "Ethical and Legal Challenges of Artificial Intelligence-Driven Healthcare", 1 *Artificial Intelligence in Healthcare* 295-336 (2020).

[19] India's Regulation of AI and Large Language Models, *available at:* https://www.india-briefing.com/news/india-regulation-of-ai-and-large-language-models-31680.html/ (last visited on October 01, 2024).

are specifically due to the lack of specific legislation regarding the use of AI by police forces which leaves a gap for policing misconduct in the use of the technologies.

These gaps call for an imperative formulation of a robust regulatory framework of AI in the police force and other law enforcement agencies in India. That should be a framework of its kind, enabling the use of artificial intelligence to remain compliant with the principles of the Law, Necessity, and Proportionality outlined in *Justice K.S. Puttaswamy (Rett.) v. Union of India.*[20], which ensures the Right to Privacy as Article 21 Right. In other words, a good set of rules should specify how data is gathered, processed, and utilized by AI systems while safeguarding an individual's right to privacy at any given time. Furthermore, for the proposed framework, it is necessary to set obligations of algorithmic accountability, according to which Law Enforcement AI is audited for potential biases regularly. This is especially crucial because the algorithms used could contain bias and may lead to discriminatory decisions that erode public trust in the police. The regulation should also require human supervision of applications of artificial intelligence that are in the decision-making system to ensure that all decisions that are made are signed off by human officers. This would also reduce errors made by AI and make sure that actions taken by law enforcement are lawful and moral.

It is therefore very important to provide certain rules which will prevent the violation of human rights and ensure that proper usage of artificial intelligence in police work is explained. Applying facial recognition technologies or predictive policing poses threats to essential rights – the right to privacy, freedom of expression, and freedom from arbitrary detention. Thus, the legal framework will have to contain precise provisions that guarantee these rights, for example, the prohibition of the AI alised mass surveillance, and requirements for the giving informed consent of the persons whose data are collected and processed. Transparency is also highly important being used to gain the public's trust in artificial intelligence in law enforcement. Any agency that incorporates AI should be mandated to make a declaration of the utilization of the technology and the details concerning the data to be gathered, why the same is to be gathered as well as the algorithms adopted. This would mean that members of the public can scrutinize the proceedings and where they feel their rights are being infringed on by AI they can contest it. In addition, the operating law should comprise provisions regarding remedies where the enforcement performed through artificial templates negatively impacts society and individuals are wanting to get compensation for damages they sustained.

## Conclusion

The fusion of Artificial Intelligence (AI) within law enforcement is a revolutionary stride towards cultivating a truer and more relevant version of policing, that is data-guided, efficient, and more transparent. Predictive policing, facial recognition, and automated reporting are but some of the AI technologies enabling law enforcement to analyze more data, and predict crime more accurately, and more efficiently respond. All this has good potential, especially for a country with as diverse attributes as India, where the conventional methods of policing are quite limited owing to poor availability of resources, high population density & regional diversities. The use of AI can optimize police resource allocation and decrease the burden of administrative workloads to enhance their efficiency and accuracy while improving the trust of the public institution.

The adoption of AI in law enforcement also presents huge ethical and legal problems that need comprehensive treatment. In violation of privacy, algorithmic bias and accountability remain important issues. AI also collects a vast amount of personal data and has powerful surveillance capabilities, which result in worries of privacy invasion and violations of people’s fundamental rights. Yet their training data drives algorithmic bias – with a potential consequence of too easily enabling continued systemic discrimination or profiling in socioeconomically marginalized communities. Additionally, the justice system is facing a challenge in trying to determine accountability—whose mistake, misuse of the tool—when it comes to AI.

For these reasons, human intelligence still holds an all-important place. What AI systems can’t do is replicate the qualitative judgment, ethical reasoning, empathy, and discretion that human officers bring. In that sense, hence, the integration of AI into human systems should be seen as augmenting human capability, not replacing it. For AI-derived decisions to ultimately be compliant with the law, sound ethics, and other societal needs, they must be monitored by humans.

The adoption of a thoughtful approach for compounding AI’s analytical abilities with human officers’ ethical and empathetic judgment brings forth a lot of benefits for law enforcement. However, the extent of usefulness of this system hinged on having a workable regulatory framework that would uphold the principles of transparency, accountability, and observance of constitutional rights. Data privacy, the avoidance of algorithmic biases, and clear accountability for AI use require the development of clear guidelines.

The conclusion is that despite the potential for AI to transform the practice of law enforcement, its inclusion in the sector remains contingent on proper consideration of ethical, legal, and human rights concerns. An AI that augments existing human oversight, like with a synergistic model, can be a combination of a more effective, fair, and just law enforcement system, one that follows the rule of law and protects the rights of the individual.

[20] AIR 2017 SC 4161.