

ARTIFICIAL INTELLIGENCE AND THE CRIMINAL JUSTICE SYSTEM OF INDIA

Apoorva Chandra *

ABSTRACT

We humans sometimes suffer boredom while working on our work but when we have technology in our hands, we can do them at ease. Technology has proven itself superior to humans over the last few decades in every field, including those involving safety, finance, health care, and transportation. Artificial intelligence (AI) is one such quickly developing technology that has the potential to revolutionise a wide range of sectors in today's society, including the law enforcement system. Case management, document review, and other routine tasks can be automated by AI. Large amounts of data can be analysed in order to spot trends and make predictions, which can help with decision-making. Risk assessment, predictive policing, and sentencing are just a few of the law enforcement system's functions. Despite its benefits, the development of technology has consequently constructed new challenges for legal systems as they work to control its use and defend individual rights. As legal systems work to fully understand the implications of these technologies for legal decision-making and coupled with some limitations, the use of artificial intelligence and machine learning in the field of criminal justice unveils challenges. In conclusion, there is a lot of room for efficiency and fairness improvements in the law enforcement system through the application of AI. To make sure that these technologies are used morally, not to perpetuate preexisting biases, or cause harm to marginalised communities, careful thought and regulation are required.

Keywords: Artificial Intelligence, Criminal Justice System, Judiciary, Law enforcement agencies, Law Firms, Technology.

*BA LLB, FIRST YEAR, ALIGARH MUSLIM UNIVERSITY CENTRE, MALAPPURAM.

PURPOSE OF RESEARCH

1. To explore how advances in technology are impacting legal systems.
2. How technology is being used to improve legal systems.
3. The main concern raised by the use of technology in the legal field.

INTRODUCTION

We're living in an age of big data, where we can accumulate tremendous amounts of information that are much more complicated for any human being to analyze. In several sectors, the application of AI has already proven to be very successful, including healthcare, banking, and marketing.¹The fact that AI can bring enormous changes to mobility, healthcare, agriculture, and education is also acknowledged by NITI Aayog.

The legal system is a further area in which artificial intelligence could be used effectively. Artificial intelligence, which can influence almost every aspect of our lives, may be referred to as one of the greatest 21st- technological revolutions.

Because of the delay of cases, shortage of officers and judges, and extended periods of court proceedings leading to lengthy legal processes, India's judicial system has not been reformed. These problems are leading to delays in judicial proceedings, which is the same as denying justice. The application of Artificial Intelligence in a judicial administration system needs to be implemented to ensure the effectiveness of legal and law enforcement systems.

According to Sharad Arvind Bobde, the former Chief Justice of India, "We have a possibility of developing Artificial Intelligence for the court system. Only to ensure that the undue delay in justice is prevented...We must employ every talent, every skill we possess to ensure that justice is received within a reasonable time. A delay in justice can't be a reason for anybody to take the law into their hands. But it's very important for us as courts to ensure there's no undue delay in justice."²

While listing the number of cases that have not yet been heard in each court, he highlighted the need to create artificial intelligence for the judiciary. Artificial intelligence, in

¹Rockwell Anyoha, 'The History of Artificial Intelligence' (*Science in the News*, 28 August 2017) <<https://sitn.hms.harvard.edu/flash/2017/history-artificial-intelligence/>> accessed May 7 2023

²Snigdha Choudhury, 'Possibility of Developing Artificial Intelligence for Court System, says CJI Bobde' *India Today* (Bengaluru, 12 January 2020) <<https://www.indiatoday.in/india/story/artificial-intelligence-court-system-cji-bobde-1636116-2020-01-12>> accessed May 7 2023

combination with the idea of electronic courts, is therefore likely to bring about the integration of information and technology into the judicial system.

CRIMINAL JUSTICE SYSTEM?³

A criminal justice system is defined as a system of justice established to deal with governmental entities in charge of enforcing laws in a nation, preserving peace and harmony, and dealing with criminal offences. The law enforcement system's goal is aimed to ensure that everyone who has been harmed or suffers harm because of another person can assert his rights and seek redressal.

The Indian Penal Code (IPC), 1860 serves as the cornerstone of India's criminal justice system. The rules and regulations governing criminal conditioning in the nation are outlined in this law. The law enforcement system is accountable for making sure that criminals are punished and the victims receive fair treatment. Additionally, the system makes sure that those accused of criminal conditioning receive fair treatment and all of their legal rights.⁴

The police, the judiciary, and the corrective system make up India's law enforcement system. The police are responsible for conducting investigations and apprehending offenders and serve as the initial point of contact for those impacted by crime. The corrective system oversees rehabilitating criminals and ensuring that they don't commit new crimes, whereas the bar is in charge of administering justice through trials and sentencing.⁵

Journal of Legal Research and Juridical Sciences

Components of the law enforcement system

The law enforcement system has a primary role to play in the prevention and control of crime, which is generally carried out through arrest, proceedings, verdicts, sentences, rehabilitation, or finally reparative measures. The legislature acts in the form of a law to lay down basic principles. The Police, Courts, and Corrections Institutions are its major component and are administered by Criminal law enforced with the object of protecting society against criminals and lawbreakers. The legislature is a key component of the law enforcement system, as all legislative acts come from lawmakers. The judiciary is

³ Malimath Committee Recommendations : Important Topics for UPSC Exams

<<https://iasexamportal.com/current-affairs/malimath-committee-recommendations>> accessed May 7 2023

⁴ 'Exploring the Components of India's Criminal Justice System: A Comprehensive Look at the Punishment System' *The Times of India*(India, 4 January

2023)<<https://timesofindia.indiatimes.com/readersblog/lawpedia/exploring-the-components-of-indias-criminal-justice-system-a-comprehensive-look-at-the-punishment-system-48833/>> accessed May 9 2023

⁵ Ibid.

interpreting those laws, but the police are enforcing them. They are interdependent and influence each other's activities.⁶

The law enforcement system in India is comprised of, the namely:

- a. Law Enforcement Personnels
- b. Judiciary
- c. Correctional System

The police are in charge of enforcing the law, investigating crimes, and making arrests of offenders. A trial's fairness and the administration of justice are the responsibility of the bar. Rehabilitating criminals and keeping them from committing crimes again is the responsibility of the correctional system. The two primary laws that govern how criminal cases are to be handled in our nation are the Criminal Procedure Code and the Indian Penal Code.

Objectives of the law enforcement system⁷

It is worth noting that a majority of crimes remain unreported to the police, and even among those reported, only a fraction go to trial in court. Finally, the logical conclusion is reached only in a handful of cases that were brought to court. The law enforcement system is under increasing pressure and people are losing faith in it, because of excessive delays in the resolution of cases.

The primary objective of the law enforcement system is to ensure the safety of people and their belongings and apprehend those who violate the law. The fundamental goal of the law enforcement system is to guarantee the protection of individuals and their possessions while capturing those who break the law. In other words, the underlying principle of the justice system is to ensure equitable treatment of both offenders and victims. All societies have individuals who are dedicated to maintaining order, peace, and justice, as well as individuals who are causing issues related to law and order.

A justice system that prioritizes capturing lawbreakers and safeguarding individuals and their belongings is fundamental. Equitable treatment of both offenders and victims is the underlying principle of the justice system, as all societies have individuals who maintain

⁶Concept of Criminal Justice System and Police System
<<https://egyankosh.ac.in/bitstream/123456789/38802/1/Unit-13.pdf>> accessed May 9 2023

⁷Ibid

order and those who cause issues related to law and order. Thus, a law enforcement process with a high arrest rate and advanced concretion rate may still be inadequate if it lacks credibility in the public's eyes.

Thus, the objectives of a criminal justice system are as follows:

- a. To Prevent crime
- b. To punish offenders
- c. Rehabilitate transgressors
- d. Compensating victims and providing them relief.
- e. Maintain law and order.
- f. Regulate behavior (especially of criminals)
- g. Provide treatment and rehabilitation for offenders
- h. Create deterrence against criminal activity⁸

WHY REFORMS?

Giving the victim fair and impartial justice is the goal of a criminal trial. As the saying goes, "Justice delayed is justice denied." There is a distinct hierarchy of criminal courts in the nation, the Supreme Court at the apex court followed by the High Court in every state and at last the Sessions courts in every district and the Courts of Judicial Magistrate.

Over 4.7 crore cases were still pending in Indian courts as of May 2022 at all levels of the judicial system. Nearly 1,82,000 of them have been pending for more than 30 years, and 87.4% of them are still pending in lower courts and 12.4% in higher courts. More people and organizations are turning to the courts as the trend of litigation increases. However, the increase in cases is not reflected in the number of judges available to hear them. Due to inadequate infrastructure, the courts are overworked, which has resulted in a significant backlog of cases.⁹

The number of cases for the Indian judiciary to decide is rising, and there are many open positions at all levels. 129 High Court judges were recently recommended for appointment by the Supreme Court Collegium, shortly after seven judges were named to the Supreme

⁸Rachit Garg, 'Criminal justice system in India' (*ipleaders*, 8 August 2022) <<https://blog.ipleaders.in/criminal-justice-system-in-india/>> accessed May 9 2023

⁹Sumeda, 'Explained | The Clogged State of the Indian Judiciary' *The Hindu* (India, 10 May 2022) <<https://www.thehindu.com/news/national/indian-judiciary-pendency-data-courts-statistics-explain-judges-ramana-chief-justiceundertrials/article65378182.ece>> accessed May 10 2023

Court.¹⁰Over 71,000 cases are currently pending in the Supreme Court, while 59 lacks are pending in the High Courts, according to recent testimony from Union Law Minister Kiren Rijju to the Rajya Sabha.¹¹Thus, the reformation of the justice system is the need of an hour because of the following criterion these are namely:

- a. Undertrial prisoners
- b. Lack of judges
- c. Pendency and Vacancies in the Judiciary
- d. The inefficiency of the legal system
- e. Problems with the police department

What reforms need to opt for?

Several committee reports, judicial pronouncements and the views of eminent persons have contributed to the determination of the reforms to opt into the Indian criminal justice system. These are as follows:

1. Malimath Committee: Key Recommendations¹²

According to Malimath Committee, officially known as the Committee on Reforms of the law enforcement system, was established in 2000 to review India's criminal justice system and make reform recommendations. The committee is headed by former Karnataka High Court Chief Justice, Justice V.S. Malimath. Those recommendations were:

a. Borrowing features from the Inquisitorial System of investigation

The panel recommended that courts should have the power to summon any person for examination if necessary, based on the inquisitorial system.

¹⁰'Pendency and Vacancies in the Judiciary' <<https://prsindia.org/policy/vital-stats/pendency-and-vacancies-in-the-judiciary>> accessed May 10 2023

¹¹'Over 71,000 Cases Pending In Supreme Court, 59 Lakhs In High Courts : Law Minister Tells Rajya Sabha' *Live Law* (5 August 2022) <<https://www.livelaw.in/top-stories/over-71000-cases-pending-in-supreme-court-59-lakhs-in-high-courts-law-minister-tells-rajya-sabha-205784>> accessed May 11 2023

¹²K. Deepalakshmi, 'The Malimath Committee's recommendations on reforms in the law enforcement system in 20 points' *The Hindu* (17 January 2018) <<https://www.thehindu.com/news/national/the-malimath-committees-recommendations-on-reforms-in-the-criminal-justice-system-in-20-points/article61493071.ece>> accessed May 12 2023

b. Right to silence

The Committee suggested that the court should be allowed to question the accused to draw an adverse inference.

c. Rights of the accused

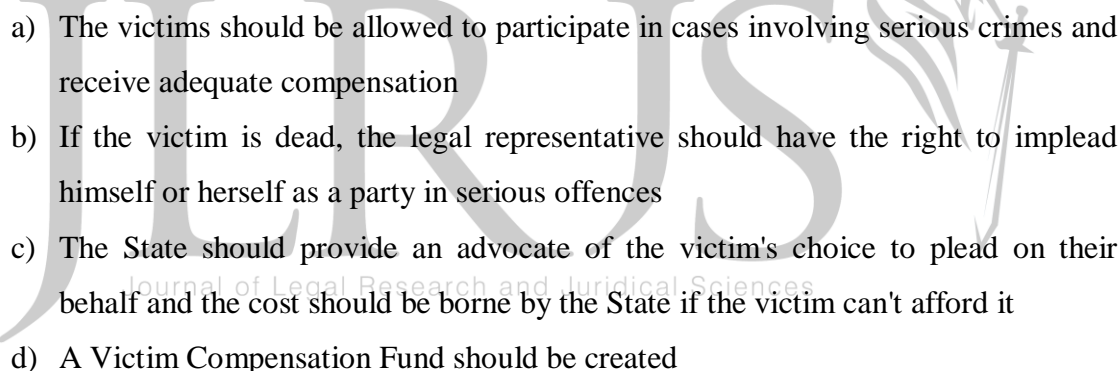
The Committee proposed a Schedule for the Code should be made available in all regional languages to ensure that accused know their rights and how to enforce them.

d. Presumption of innocence

The committee felt that "proof beyond reasonable doubt" is an unreasonable burden on the prosecution, and suggested that a fact should be proven "if the court is convinced it is true".

e. Justice for victims of crime

The Committee recommended that

- 
- a) The victims should be allowed to participate in cases involving serious crimes and receive adequate compensation
 - b) If the victim is dead, the legal representative should have the right to implead himself or herself as a party in serious offences
 - c) The State should provide an advocate of the victim's choice to plead on their behalf and the cost should be borne by the State if the victim can't afford it
 - d) A Victim Compensation Fund should be created

f. Police investigation

The Committee recommended hiving off the investigation wing from Law and Order and setting up a National Security Commission and State Security Commissions to improve the quality of investigations.¹³ Police custody should be extended to 30 days and an additional 90 days for the filing of charge sheets in serious crimes.

¹³*Prakash Singh v Union of India* (2006) 3 SCC (Cri) 417: 2006 SCC OnLine SC 998

g. Courts and judges

The judge-population ratio in India is 10.5 per million population, compared to 50 per million in many parts of the world. As of 2017, it is 19.66 per million people. High courts including the Supreme Court should have a criminal division.

h. Witness protection

The Committee recommended a strong witness protection mechanism. Witnesses should receive their allowances on the same day, have proper seating and resting facilities, and be treated with dignity.

Judicial pronouncements

a. *S.P. Anand v State of Madhya Pradesh*¹⁴

In this case, it was held that prisoners have basic rights to a healthy life even though their right to freedom is restricted.

b. *R.D. Upadhyay v State of A.P.*¹⁵

The Supreme Court noted that the death of women or their suicide during prison term is a serious concern and jail authorities must improve conditions and healthcare facilities to prevent this.

c. *Hussainara Khatoon (IV) v Home Secy., State of Bihar*¹⁶

It was argued that keeping undertrials in jail for longer than their punishment violated their fundamental rights under Article 21 of the Constitution and that the State has a duty to provide a speedy trial.

d. *Rama Murthy v State of Karnataka*¹⁷

In this case, the Hon'ble Supreme Court outlined specific issues and problems that Indian prisons and inmates face. These are the problems:

¹⁴*S.P. Anand v State of Madhya Pradesh* 2007 SCC OnLine MP 211: AIR 2007 MP 166

¹⁵*R.D. Upadhyay v State of A.P* (2007) 15 SCC 337: (2010) 3 SCC (Cri) 704: 2006 SCC OnLine SC 423

¹⁶*Hussainara Khatoon (IV) v Home Secy., State of Bihar* (1980) 1 SCC 98

¹⁷*Rama Murthy v State of Karnataka* LAWS(SC)-1996-12-150

- a) Prison overcrowding
 - b) Delayed trials
 - c) Inhumane treatment of prisoners
 - d) Neglected health and hygiene
 - e) Poor communication
 - f) The need to oversee open-air jails
- e. *Pratap Singh v Union of India*¹⁸

In this case, guidelines recommending changes to the police system were provided by the Hon'ble Supreme Court which is:

- a) A state security commission must be established in each state to monitor police activity and ensure that there are no outside influences, among other things.
- b) In each district, police complaints offices must be established.

WHAT IS ARTIFICIAL INTELLIGENCE?

John McCarthy concocted the term "Artificial Intelligence" to refer to "the science and engineering of creating smart machines, especially intelligent computer programmes." "Artificial Intelligence" is the design of computer systems that, in theory, may be able to carry out operations that ordinarily require human intelligence, such as perception, reasoning, learning, problem-solving, and so forth. These systems make use of algorithms, statistical models, or other techniques to analyse and forecast data input.

Theoretically, AI can collaborate with machines to compute and process challenging tasks that do not involve human involvement in any way. AI programmes imitate the planning, problem-solving, and knowledge representation behaviours of human intelligence. These programmes use images, routines, patterns, and user perceptions to determine user preferences. Artificial intelligence is used in a wide range of aspects of our lives, including industry, education, finance, communication, healthcare, and more. In the law enforcement system, artificial intelligence has an immediate effect on how investigations are conducted and predictions of crime in the legal system.

¹⁸*Pratap Singh v Union of India* (1985) 4 SCC 197

Application of Artificial Intelligence in the Legal Industry¹⁹

The important areas in which artificial intelligence is being used, or can find its operation soon are:

1. Use of AI by Law Enforcement Agencies

Law enforcement agencies have started to adopt various forms of artificial intelligence (AI) to improve their operations and effectiveness. Police forces have a vital role to play in maintaining order among citizens. They shall be responsible for ensuring that citizens' security is ensured without disrupting their daily lives. The challenge that police agencies are faced with is balancing the need for vigilance as well as intrusiveness. Monitoring a large population in case of possible threats is another challenge for the police. By introducing biometric information like face, speech, blood type, and fingerprints to make the interrogation and tracking of suspects easier, AI can assist law enforcement agencies in becoming more effective. AI can efficiently instruct investigators on proper investigation approaches. It lessens the chance that officers will make procedural mistakes. Additionally, it is possible to develop a digital database accessed by an AI with information on all crimes, their methods, and comparable crimes committed elsewhere. The use of AI in law enforcement can improve both efficiency and effectiveness.

The technologies that are helping the police, all over the world, effectively and efficiently are:

- a. Big data
- b. IoT (Internet of Things)
- c. Drones
- d. Artificial intelligence
- e. Augmented reality

In this field, the following applications of AI have already made significant headway:

- a. ABHED, face recognition AI, developed by Staqu Technologies and Punjab and Rajasthan Police²⁰

¹⁹Sneha Mahawar, 'AI and Indian Criminal Justice System' (*ipleaders*, 15 December 2022) <https://blog.ipleaders.in/ai-and-indian-criminal-justice-system/#What_is_Artificial_Intelligence> accessed May 11 2023

- b. AI-powered equipment introduced by Odisha police to analyze crime data²¹
- c. TRINETRA launched by Uttar Pradesh Police²²
- d. E-Pragati database launched by Andhra Pradesh Government²³
- e. The AI center set up by Delhi Police and IIT Delhi²⁴

Farther, an AI-powered system can assist in forensic analysis by recognizing the biological material present at the crime scene, such as blood, urine, saliva, hair, semen, fingerprints, and other bodily fluids. Cognitive data analysis, identification, and similarity pattern extraction features in AI can help with this process. With the help of an AI-enabled database, evidence gathered at crime scenes can give us a clue as to whether or not this weapon has been used previously and who might have used this weapon before. The identification of pattern signatures during gunshot analysis can be dealt with by an artificial intelligence algorithm.²⁵

Similarly, AI programming and big data can help identify crime spots in areas where theft is prevalent. By combining spatial and time-related information, AI can provide valuable insights into crime patterns.²⁶

2. Use of AI by the Correctional Institutions

AI can help jail officials keep an eye out for criminal activity occurring on or near the jail grounds. On the grounds of prisons, illegal activities can be easily and effectively observed using drone technology and surveillance systems powered by artificial intelligence. For instance, the UP Government has launched JARVIS, an AI-based video analytics platform, in

²⁰Kul Bhushan, 'Meet Staqu, a Startup Helping Indian Law Enforcement Agencies with Advanced AI' *Live Mint* (26 June 2018) <<https://www.livemint.com/AI/Dih6fmR6croUJps6x7JW5K/Meet-Staqu-a-startup-helping-Indian-law-enforcement-agencie.html>> accessed May 11 2023

²¹Smriti Srivastava, 'Odisha Police to Use AI and Mobile Computing to Analyse Crime Data' (*Analyticsinsight*, 1 January 2019) <<https://www.analyticsinsight.net/odisha-police-to-use-ai-and-mobile-computing-to-analyse-crime-data/>> accessed May 12 2023

²²DC Correspondent, 'Staqu launches TRINETRA, an AI app for UP Police Department' *Deccan Chronicle* (Coimbatore, 29 December 2018) <<https://www.deccanchronicle.com/technology/in-other-news/291218/staqu-launches-trinetra-an-ai-app-for-up-police-department.html>> accessed May 11 2023

²³Staff Reporter, 'Naidu launches e-Pragati core platform' *The Hindu* (Vijaywada, 20 July 2018) <<https://www.thehindu.com/news/national/andhra-pradesh/naidu-launches-e-pragati-core-platform/article24465768.ece>> accessed May 11 2023

²⁴Press Trust of India, 'Delhi Police gets artificial intelligence centre to fight crime, terrorists' *Business Standard* (New Delhi, 4 December 2018) <https://www.business-standard.com/article/current-affairs/delhi-police-gets-artificial-intelligence-centre-to-fight-crime-terrorists-118120400449_1.html> accessed May 12 2023

²⁵Madhurjya Chowdhury, 'AI in Forensic Investigation and Crime Detection' (*Analyticsinsight*, 13 August 2021) <<https://www.analyticsinsight.net/ai-in-forensic-investigation-and-crime-detection/>> accessed May 14 2023

²⁶Naveen Joshi, 'The Rise of AI in Crime Prevention and Detection' (*Allerin*, 30 November 2019) <<https://www.allerin.com/blog/the-rise-of-ai-in-crime-prevention-and-detection>> accessed May 12 2023

collaboration with Staqu Technologies to scan data from CCTV footage throughout prisons. This technology can help jail officials keep an eye out for criminal activity occurring on or near the jail grounds.²⁷

3. Use of AI by the Judicial System

The principle of “*stare decisis*” plays a significant role in the process of decisions making. As a reference point for decision-making, it requires observance of decisions made by the higher courts. By having an AI-based database with a copy of the decisions, this time-consuming task would be simpler to complete. AI-based databases can be used to record court testimony without the use of human error, making it easier to complete the time-consuming task. It allows transparency in conducting trials. It shall enable the conducting of trials to be carried out in a transparent manner. There is an undue delay in time caused by the manual execution of the procedure with regard to issuing a summons, witness attendance, next hearing date, and so on. In order to make it possible for judges to issue these interim orders at once, the use of artificial intelligence may be able to clarify or precise the content of legal documents. Thus, to reduce delays and simplify the trial process, a system based on artificial intelligence may be used.

Judges have to make various decisions when dealing with regard to criminal matters, such as granting bail or otherwise. This decision-making will become simple and easier with the help of AI-powered machines which can help the judges in determining the cases.

Journal of Legal Research and Juridical Sciences

In this field, the following applications of AI have already made significant headway:

- a. The Public Safety Assessment (PSA) by the Arnold Foundation is used in USA courts.²⁸
- b. The Supreme Court VidhikAnuvaad Software (SUVAS) is a translation software launched by the Apex Court.²⁹

²⁷Digit NewsDesk, ‘Uttar Pradesh government partners with Staqu to introduce AI-based video analytics platform, JARVIS, in prisons’ *Digit* (07 November 2019) <<https://www.digit.in/news/machine-learning-and-ai/uttar-pradesh-government-partners-with-staqu-to-introduce-ai-based-video-analytics-platform-jarvis-i-50967.html>> accessed May 12 2023

²⁸SharaTonn, ‘Can AI help judges make the bail system fairer and safer?’ (*StanfordEngineering*, 19 March 2019) <<https://engineering.stanford.edu/magazine/article/can-ai-help-judges-make-bail-system-fairer-and-safer>> accessed May 14 2023

²⁹ThePrintTeam, ‘AI can improve judicial system’s efficiency’ — full text of CJI Bobde’s Constitution Day speech’ *ThePrint* (New Delhi, 27 November 2019) <<https://theprint.in/judiciary/ai-can-improve-judicial-systems-efficiency-full-text-of-cji-bobdes-constitution-day-speech/326893/>> accessed May 14 2023

- c. The Supreme Court Portal for Assistance in Courts Efficiency (SUPACE) portal of the Supreme Court.³⁰

4. Use of AI by Law Firms and Legal Professionals

AI is useful for advocates in producing discovery responses, responsive pleadings, and other documents just by uploading the complaint or discovery request with jurisdictional requirements.

In this field, the following applications of AI have already made significant headway:

- a. Legal Mation, is an AI-based platform helping advocates and professionals in speeding up the process of litigation.³¹
- b. Cyril Amarchand Mangaldas and Kira Systems have developed AI-based machine learning software to help identify and analyse risky provisions/clauses in agreements by searching through extensive volumes of online databases.³²

Benefits of Artificial Intelligence³³

There are several potential benefits of using AI in the law enforcement system, including:

- a. Increased Efficiency
- b. Improved Accuracy
- c. Reduced Bias
- d. Enhanced Public Safety
- e. Better Resource Allocation
- f. Good at detail-oriented jobs
- g. Reduced time for data-heavy tasks
- h. Saves labor and increases productivity
- i. Delivers consistent results

³⁰Snehanshu Shekhar, 'Supreme Court embraces Artificial Intelligence, CJI Bobde says won't let AI spill over to decision-making' *India Today* (New Delhi, 7 April 2021) <<https://www.indiatoday.in/india/story/supreme-court-india-sc-ai-artificial-intelligence-portal-supace-launch-1788098-2021-04-07>> accessed May 14 2023

³¹'Platform Overview' (LegalMation) <<https://www.legalmation.com/platform-overview/>> accessed May 14 2023

³² Kira Systems, 'Cyril AmarchandMangaldas is India's First Law Firm to Embrace Artificial Intelligence Technology as part of Legal Innovation' (Kira Systems, 31 January 2017)<<https://kirasystems.com/company-announcements/cyril-amarchand-mangaldas-is-indias-first-law-firm-to-embrace-artificial-intelligence-technology-as-part-of-legal-innovation/>> accessed May 14 2023

³³Ed Burns, 'Artificial Intelligence' (Tech Target)<<https://www.techtarget.com/searchenterpriseai/definition/AI-Artificial-Intelligence>> accessed May 14 2023

- j. Can personalization for client satisfaction
- k. AI-powered virtual agents are always available

Artificial intelligence, thus, can play a catalytic role in managing and supervising the law enforcement system.

Limitations of Artificial Intelligence³⁴

The use of artificial intelligence in the law enforcement system could have numerous potential benefits, there are certain problems that need to be resolved. Some limitations to consider are as follows:

- a. Bias and discrimination
- b. Lack of transparency
- c. Reliance on data quality
- d. Limited ability to account for context
- e. Potential for errors and mistakes
- f. Lack of accountability
- g. Lack of human oversight
- h. Raises ethical and legal concerns, and
- i. Raises concerns relating to privacy and civil liberties
- j. Potential misuse of data
- k. Absence of regulatory laws regarding the use of AI in the legal field
- l. Algorithms will function only up to the data on which they are trained.
- m. Lack of accountability of the algorithms

Thus, the introduction of AI into the law enforcement system raises ethical and legal concerns. Therefore, it's important to approach the application of AI in the law enforcement system with caution and carefully consider the potential risks and benefits.

CONCLUSION

Law and technology is a rapidly evolving field, as new technologies continue to emerge and legal systems adapt to these changes. There is no doubt that technology is part and parcel of

³⁴ Ibid.

our lives. By using machine learning and artificial intelligence algorithms, astonishing progress has already been achieved in the field of health care, finance, safety, and transport.

One of the primary areas where AI can be applied is the law enforcement system. The implementation of artificial intelligence (AI) in criminal justice has the potential to revolutionize the prediction, prevention, and investigation of crime and deliver justice to victims.

AI algorithms can analyze data which can be then used to allocate law enforcement resources more effectively, preventing crime before it occurs. Furthermore, AI can assist law enforcement and can be used to help reduce biases and disparities. This will also reduce the pendency in traditional courts of law. In addition to this, by assisting lawyers and judges in ensuring fair and transparent investigations, playing an important role in the legal field.

This doesn't mean that it can replace lawyers and judges as it lacks emotional intelligence. Before any infusion of AI into the Indian legal system, it is necessary to address concerns related to a possible violation of the right to privacy enshrined under the Indian Constitution against the state. When using AI, a large amount of data needs to be fed into the system, and there is currently no legal framework for the collection and protection of data that can be fed into the system for legal and judicial use. Foremost, in practical terms, legal officers and lawyers will also need adequate training before the integration of artificial intelligence into the judicial system. Moreover, concerns remain as to the impact of artificial intelligence on individual privacy and fundamental rights.

Though the application of AI in criminal justice systems has great potential, in parallel there are also some concerns that need to be addressed. The scope of AI in the very field is vast. Though its potential benefits cannot be discarded. However, it is essential to ensure that its use is carefully regulated to prevent abuses and protect individual rights and must be used in a responsible and ethical manner. Therefore, rather than using a hit-and-trial method, the introduction of artificial intelligence should be based on evidence.