IJNRD.ORG ISSN : 2456-4184
INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG
An International Open Access, Peer-reviewed, Refereed Journal

ARTIFICIAL INTELLIGENCE IN CRIMINAL JUSTICE SYSTEM: AN ERA OF PREDICTIONS[1]

Dr. Geetika Walia, Dr. Shruti Goyal
Associate Professor of Law
Rajiv Gandhi National University of Law Bhadson Road, Sidhuwal Patiala, 147001
Punjab 0175- 2391200

INTRODUCTION

Artificial Intelligence (herein referred as AI) AI has become the reality of today's world where the AI is handling almost everything. It is basically an artificial world where there is a contrast made between human reasoning and thinking and the machine's ability to process by the use of software made by a human being. Because of this reason AI has a lot of value in the market and the companies have started investing in AI. Artificial Intelligence is a technology that helps to handle data, which is complex in nature where human abilities to manage it becomes difficult. Further AI is when the machine has the ability to perform intellectual functions just like human beings that include thinking, reasoning, helping to solve the problems, answering questions etc.

AI today is taken as one of the remarkable developments of human beings done till date. Its impact can be seen not only on individuals but also on society in general. AI has today become a part and parcel of our lives. From the time we get up in the morning till the time we go off to sleep and sometimes even after that AI touches some or the other aspect of our lives. Like the phones we use, or the things we watch on the online platform or the use of Alexa or Siri all are a part of the AI system.

AI has a lot of value and potential in the business world today. This holds true for a totally contrasting world, which is the administration of the criminal justice system. There is a link that can be established between AI and the administration of the criminal justice system. As far as India is concerned artificial intelligence is in its nascent stage of development. AI would help in the 'ease of justice' and would further enhance 'ease of living'.

[1] Dr. Geetika Walia and Dr. Shruti Goyal, Associate Professors of Law, Rajiv Gandhi National University of Law, Punjab.

The authors in this article shall explore the use of AI in the criminal justice system with special focus on the concepts of predictive policing, judges using AI for the purpose of deciding quantum of sentence and granting of bail, use of AI for the management of prisoners in the prison system. The ethical and legal issues that arise because of the use of artificial intelligence in the criminal justice system shall also be dealt.

DEFINITION OF ARTIFICIAL INTELLIGENCE

It is important at this juncture to define what AI is? There is no universal definition of AI. When a computer programme or computer software is used to reproduce or replicate how humans think or what they would normally do, it is called artificial intelligence. It is a situation where machines would perform the functions that an individual would normally perform.

"Artificial Intelligence is the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the intellectual processes which are characteristic of humans, such as the ability to reason, discover meaning, generalise or learn from past experience."[2] This word was first used in 1956 by John McCarthy. He defined it as the 'science and engineering of making intelligent machines.'[3] It can be taken to be an amalgamation of various subjects like maths, mental ability, computers, sociology, cognitive reasoning and science etc.

India's National Programme for AI, which was developed by NITI Aayog, defines artificial intelligence in the context of social good (and for all) as its goal. One of the first steps towards this goal has been the development of PARAM SIDDHI AI, the country's largest High Performance Computing (HPC) supercomputer. This is ranked among the top 100 supercomputers in the world.[4] In addition to this out of 200 countries India is ranked 13th as far as development of AI is concerned.[5] In the last two decades NIC[6] has been the forerunner and responsible for digitising all public sectors in India.

[2] <https://www.britannica.com/technology/artificial-intelligence> accessed on 12 January 2024

[3] <https://www.ibanet.org/dec-21-ai-criminal-justice> accessed on 12 January 2024

[4] <https://www.newindianexpress.com/opinions/2022/feb/21/the-artificial-intelligence-enabled-nation-2421823.html> accessed on 10 January 2024

[5] <https://bharatchugh.in/2021/11/24/alexa-jail-or-bail-use-of-artificial-intelligence-in-bail-proceedings/> accessed on 18 January 2024

[6] National Informatics Centre (NIC) under the Ministry of Electronics and Information Technology (MeitY) is the technology partner of the Government of India. NIC was established in the year 1976 with the objective to provide technology-driven solutions to Central and State Governments. < https://www.nic.in/mandate/> accessed on 1 February 2024

ADVANTAGES OF AI

It is appropriate to mention here that AI today has transgressed into every field ranging from health care, to border security, to managing of taxes and even the criminal justice system. It also helps in the prevention of crime. Not just this it also comes to the rescue of the courts for providing faster justice. In light of this some of the advantages of AI are stated as under:

1. Human inaccuracy is reduced to a very large extent by the use of AI. This is possible because of the reason that AI functions through the use of certain set principles and programmes, which have desired outcomes/ results. This helps in removing or reducing the errors to a considerable extent.
2. The time required to perform a particular task is reduced by the use of AI as it works on set principles and programmes, does the processing and gives us the desired results. There are very less barriers as far as the working of the AI is concerned.
3. Another important advantage of AI is that it is available round the clock to solve any problem. The working hours of human beings are limited because they need resting time as well. But this limitation does not apply to AI.
4. The use of AI simplifies human interaction with machines.
5. AI can solve even those problems that are uncertain and unexpected on the spot. In these situations humans need time to augment the reaction to the problem. But AI does not need any reaction time.
6. AI helps in making the lives of humans easier as complex tasks can also be sorted and solved with the help of AI.

AI AND CRIMINAL LAW

The authors in this part would discuss how the use of AI would be beneficial in making the administration of the criminal justice system better and effective as in today's scenario there is a shift in the nature of crimes being committed. In the earlier times the crimes committed were more conventional in nature like murder, dacoity, trespass etc. But in today's time the crimes that are committed are more sophisticated in nature.

Therefore, the pertinent question to answer over here is can with the use of AI the system of criminal administration and management including policing be improved? The question is whether artificial intelligence can be used to improve administrative efficiency and judicial decision-making processes? Can artificial intelligence play a pivotal role in transferring the manner in which the criminal justice system works? The authors in the following paragraphs have addressed the answer to these questions.

PREDICTIVE POLICING: AN ANALYSIS

An innovative method of policing which has become the holy grail in America and several other jurisdictions is the concept of policing which is based on "prediction". Prediction is involved at some level of decision making in most of the criminal justice systems. Here high power computers use algorithms on the collected data and analyse the same to predict the occurrence of crime. The prediction is based on the analysis of certain aspects of the physical and social environment that encourage commission of crime.

It is pertinent to mention that prediction is not new to policing and has been used by the police officials to predict about the persons who may be involved in the commission of crime and the areas which may be prone to high risk of criminal activity. Predictive policing is thus using the same strategy with the only difference that the tools are new.

In predictive policing risk assessment tools are used. Algorithms are used by the police for preventing crime by predicting the likelihood of a particular type of crime in an area. The algorithms on the basis of data fed into calculates the nature of crime and the likelihood of a person to commit a crime. This helps police in increasing the patrolling of those areas thereby preventing the commission of crime. It is known as predictive policing.

Predictive policing thus refers to "any policing strategy or tactic that develops and uses information and advanced analysis to inform forward-thinking crime prevention."[7] In predictive policing the power of big data is used and patterns are formed by interlinking isolated and random acts. Predictions are made of areas and people of future crime by using different computer models. It has become a generic term for the modern day police officials where emphasis is on the use of information technology, predictive algorithms and criminological theory to predict future locations of crime.[8] Ease of collecting data and development of more sophisticated computer algorithms will further lead to adoption of more advanced predictive technologies.

In simple words predictive policing model is the analysis of historical data about the nature of crime, location and time which is plotted and analysed by the computer to predict future occurrence of crime. In a complex predictive policing model, place based concerns- such as places where there is frequent violence or unrest, places where members of a gang reside or visit, people who are on parole are plotted in combination with event based concerns- such as calls for service, arrests. In addition to it information is also fed about particular individuals, environmental patterns and other information. This information is then analysed by using computer algorithms to search patterns for criminal activity. Intelligence collection has also begun on suspected gangs or individuals based on advanced analytics. In some states of America, like Los Angeles,

[7] Andrew Guthrie Ferguson, "Predictive Policing and Reasonable Suspicion" [2012] 62 EMORY L.J. 259

[8] Beth Pearsall, "Predictive Policing: The Future ofLaw Enforcement?" [2010] NAT'L INST. JUST. J.

criminal actors are being identified with the help of a project called Operation "LASER" (Los Angeles Strategic Extraction and Restoration).

Predictive policing is based on different theories. One theory is "near repeat". This theory seeks to explain the phenomena that certain crimes tend to repeat themselves at the same location or nearby location owing to statistical location of that place and other close environs. For example, studies have been conducted to see the pattern of residential theft and research demonstrates a nearly-repeated pattern.[9] This holds good internationally despite different cultural environments. The reasons for this are sometimes the same gangs strike again or the vulnerability of certain specific areas.

Another theory on which predictive policing is based is "risk terrain modelling". "Risk terrain modelling offers a way of looking at criminality as less determined by previous events and more a function of a dynamic interaction between social, physical and behavioural factors that occurs at places."[10] In this system particular risk factors for a crime are identified and then mapped with the help of a multi-layered computer mapping system.

The variables selected for preparing the Risk Terrain model are

(i) past incidents of theft,
(ii) residential location of individuals arrested for theft in the past two years,
(iii) geographic concentration of males between the age group of 16-24 years,
(iv) location of apartment complexes and hotels and
(v) proximity to major highways.

ADVANTAGES OF PREDICTIVE POLICING

The reasons for the popularity of predictive policing are:

1. Firstly, it is cost effective. Most of the nations across the world face the crunch of shortage of funds and therefore a technique which is cost effective is welcome.
2. Secondly, predictive policing promises a progressive high tech-plan to stop future crime.
3. Thirdly, some of the earlier studies in small areas support the accuracy of these predictions under certain circumstances.[11]

Thus, predictive policing is a push towards proactive policing where focus is to ensure that the police resources are used in a targeted manner to prevent crime.

[9] Wim Bernasco, "Them Again?: Same-Offender Involvement in Repeat and Near Repeat Burglaries" [2008] 5 EUR. J. CRIMINOLOGY 411, 412

[10] Leslie W. Kennedy et al., "Risk Clusters, Hotspots, and Spatial Intelligence: Risk Terrain Modeling as an Algorithm for Police Resource Allocation Strategies" [2011] 27 J. QUANTITATIVE CRIMINOLOGY 339

[11] Jeffrey S. Paul & Thomas M. Joiner, "Integration of Centralized Intelligence with Geographic Information Systems: A Countywide Initiative" [2011] GEOGRAPHY & PUB. SAFETY, 5

The development of predictive policing can be divided into three phases. In the first phase, the prediction was done of the areas or places which are susceptible to property related commission of crime. In this phase, algorithms are applied on the historically collected data of time, place and type of crime committed in the past to predict the occurrence of future crime. The prediction is based on the vulnerability (dim lights, lack of guards/ cameras or surveillance mechanisms) of the area for that type of crime. In the second phase, predictive policing softwares is used to predict places of violent crimes. Particular areas because of their vulnerability (less lit, availability of escape routes, availability of late night activities, drugs, alcohol, availability of victims, members of a particular gang visiting those areas) are more prone to violent crimes like shooting, assault, gang violence etc. In the third phase the focus is to predict persons involved in criminal activity. The first and second phase target places whereas the third phase target persons prone to commission of crime. It identifies individuals or groups of people who may be involved in criminal activity. Algorithms are used on the profiles of individuals who were involved in criminal activity, their present associations and other factors to predict the commission of crimes by them in future.

DISADVANTAGES OF PREDICTIVE POLICING

Though predictive policing is developing rapidly, the difficult question is how to evaluate the success of the use of these technologies. The use of data driven predictions has been embraced by the criminal justice system very eagerly without there being sufficient public discussion on it.[12] There are certain concerns which need to be addressed. The concerns are relating to data and methodology to be used. The entire concept of predictive policing is based on data. It is the fuel of predictive technology. Sometimes the data is bad owing to human error, fragmentation and biases in data, incomplete data. The second is the vulnerability of the methodology adopted and includes the question of validity, overgeneralization and error rate. In addition to it, there are concerns regarding transparency, accountability of these technologies. However, these predictions based on algorithms are considered superior to clinical predictions and therefore the law enforcement agencies are tempted to adopt this data driven technology.[13]

AI AND JUDICIAL SYSTEM

USE OF AI BY THE INDIAN JUDICIARY

Recently, on the occasion of 70th Constitution Day, the former Chief Justice of India Ho'nble Mr. Justice Bobde remarked, 'AI can improve the judicial system's efficiency through sophisticated and contextual automation of existing non- judicial tasks and functions.' Further the Supreme Court of India constituted a Committee called the 'Artificial Intelligence Committee' to investigate how AI could be used in the criminal

[12] Andrew Guthrie Ferguson, "Policing Predictive Policing" [2017] 94 Wash. U. L. REV. 1109

[13] Samuel R. Wiseman, "Fixing Bail" [2016] 84 GEO. WASH. L. REV. 417,439-40

justice system. The courts have been using AI for administrative purposes like translations. The moot point is can AI be used or come handy for judicial purposes? Can it be used for gathering information, data, and facts with respect to a case wherein the information will come handy for a judge to process the information and then decide the case.

The first laudable action taken by the court wherein the use of AI was done was the online hearing of the cases in addition to the e- filing of cases during the COVID- 19 pandemic. In India, the adoption of SUPACE (Supreme Court Portal for Assistance in Courts Efficiency), inaugurated by the former Chief Justice Hon'ble Mr. Justice Bode, has embarked the journey of use of artificial intelligence in the Courts. SUPACE is a special software, which is designed to assist judges by providing them with the records of the case and all other relevant documents. It is a hybrid system which works with human intelligence. His Lordships remarked that it is a first of its kind system in the world as it would collect all the information much faster than a human being.

The Courts have also adopted SUVAAS which is a translation tool meant for translating the documents required by the Apex Court in a case. ICJS (Interoperable Criminal Justice System) is another AI that is used by the courts wherein the databases of the criminal justice system are connected together and the data can easily be looked at by anyone. The data available on the ICJS is already being used by NDSO (National Database on Sexual Offenders) to target and identify the recidivists.

India has the National Judicial Data Grid which is an online portal and has judgement orders under the e-courts project. It is an initiative started by the Department of Justice, Government of India. Further World Bank praised this platform in its 2018 report of 'ease of doing business' as reports of case management could be easily generated which would help in entering into contracts.[14]

The use of the softwares is time saving and would reduce the pendency of cases that the Apex Court is burdened with. It is going to make the justice delivery system more efficient. Moreover, the autonomy and discretion of judges will remain intact with no interference from the software.

AI AND BAIL

Another important concept, which needs to be discussed at this juncture, is can AI be used to address issues regarding bail? It is a known fact that the judiciary in India today is under a lot of pressure as far as handling the pending cases. Algorithms can also be used at the investigation and trial stage to help the court decide the question of bail. These are risk assessment tools which on the basis of different parameters evaluate whether an arrested person is likely to pose a threat to public safety and is likely to abscond or not appear in the Court if let on bail.

[14] <https://doj.gov.in/the-national-judicial-data-grid-njdg/> accessed on 12 January 2024

An example of the United States can be cited over here wherein the courts use 'bail algorithms' to resolve the issue of granting of bail not just at the pretrial stage but also the post trial stage. The bail is granted on the basis of risk assessment[15] for which various states use different tools. Though the AI is used, but the ultimate decision lies with the judge only. So it can be said that there is a combination of human/ cognitive judgement with that of AI.

AI AND SENTENCING

Sentencing is known as the Cinderella of criminal law. Sentencing is the most difficult dilemma faced by a Judge because he has to decide the quantum of sentence that the accused shall undergo on conviction. The judges decide the sentence according to the standardised laws laid down. But at times the sentence is also steered by the personal discretion of the judge. This discretion exercised by the judge while deciding the sentence is something that is seen from the filter of past experiences.

Judges while sitting on their chairs and deciding a case not only go by law, by precedents, by authorities, binding judgments but are also going by their own discretion. In addition to these factors, the judge has to decide the sentence keeping in mind certain aspects like the sentence must be sufficiently long to deter not just the offender but also the public at large from committing the crime but it must not be that long that the accused is robbed of the opportunity to reform himself. The sentence should be such that the victim feels that justice has been done to him. The sentence must be proportional to the crime committed. All these factors generally point in different directions. The judge faces the paradox as to how to calculate the optimum sentence so that justice is done. Additionally, the number of hearings given to decide the quantum of a sentence are very few. Thus, the quantum of the sentence for the same offense varies across judges posted in the same jurisdictions in similar circumstances which raises the question of disparity.

If there is a way to standardise the orders and judgments decided by the court it will go a long way in establishing faith in the judicial system. In order to ensure uniformity in sentencing, the Legislature, as well as Judiciary, lay down factors which must be borne in mind by the judges while deciding the quantum of sentence. In some of the countries like the UK[16], USA[17] etc. detailed sentencing guidelines have been framed by the legislature and sentencing commissions have been established. However, in certain countries like India these guidelines are minimal except for a few offences where the death penalty is to be imposed. At this juncture AI can be helpful for the judges.

---

[15] Colorado Pretrial Assessment Tools (CPAT), Ohio Risk Assessment System Pretrial Assessment Tools (ORAS-PAT), Public Safety Assessment (PSA) and Virginia Pretrial Risk Assessment Instrument (VPRAI)

[16] The General Sentencing Guidelines, 2019 under the Coroners and Justice Act (UK), <https://www.scconline.com/blog/post/2021/01/13/the-general-sentencing-guidelines-2019-under-the-coroners-and-justice-act-uk/> accessed on 10 January 2024

[17] USA Sentencing Commission, <https://www.ussc.gov/guidelines> accessed on 11 January 2024

The AI as a technology hopes to bring certain standards in the judicial system by the help of data management. One of the ways can be that it is going to bring before the courts decisions based on similar facts and circumstances. This is one of the ways by which it is going to aid the judges which would solve the problem of the pendency of the cases. This means that we do not have to sit in the library for days and find out a binding judgement or authority on that particular case. In such a scenario we have specialised search engines helping us find judgments based on the same facts, or on the basis of the judges deciding the cases or on the basis of the year.

In the recent past many countries have started using artificial intelligence to aid the decision making process and enhance administrative efficiency. According to a survey conducted by Martinez and Winter (2021), the judicial fraternity strongly believes that artificial intelligence will play a pivotal role in the judicial decision making process.

Artificial intelligence can be used for pre-sentencing risk assessment. It can help the judges in those jurisdictions where the factors that have to be taken into account by the Court while sentencing an accused are well defined. Artificial intelligence can be used on these predefined parameters to ease the work of judges in calculating the quantum of sentences. This will also ensure objectivity and bring uniformity in sentencing by promoting transparency and proportionality in similar circumstances.

Despite the ease that can be brought by the adoption of these techniques and technologies, the use of artificial intelligence in sentencing has often been criticised.[18] One of the reasons is secrecy of information which is used by the algorithms for calculating the sentence. The algorithms are made by the companies and sold in the market and a proprietary artificial intelligence algorithm is secret. So there are concerns on the manner in which the data is put, the nature of analysis that is performed on this data and the right of the accused to point out if there are any inconsistencies or discrepancies in the data that is initially fed into the system for analysis.

In addition to it, there is a concern regarding the factors which are permissible for consideration. In countries like the USA, the U.S. The Sentencing Commission has unequivocally declared that factors like race, sex, religion, national origin and socio economic status of the accused are not relevant when considering the question of quantum of sentence.[19] So, the pertinent question is what factors must be considered as permissible factors while considering. Even when it is specifically declared that certain factors are impermissible, they may creep in discretely. For example, certain algorithms like the Iowa Risk Revised tool uses the accused data of employment and housing status in addition to other data while calculating the risk assessment. This data is highly impacted by the socio economic status of the accused. This would result in

[18] Michael E. Donohue, "A Replacement for Justitia's Scales: Machine Learning's Role in Sentencing" [2019] 32 HARV. J. L. & TECH. 657

[19] John Villasenor & Virginia Foggo, "Artificial Intelligence Due Process and Criminal Sentencing" [2020] Michigan State Law Review, 2020, pp. 295- 356

correlating the quantum of sentence with the socio-economic condition of the accused. A famous case where secrecy in risk assessment tools for deciding the quantum of sentence was flawed was the case of State v. Loomis.[20] In this case, the Court had considered a presentence risk assessment report which was prepared by using COMPAS (Correctional Offender Management Profiling for Alternative Sanction).

This is good for the system because at present the scenario is that we have all adapted to the technology and it has made our lives easy and convenient. There should be more reliance on technology and it should be enlarged as it is going to speed up the system and standardise the system. But the important scenario is human interface cannot be taken away even if we are using AI. Like sympathy, empathy cannot be taken away from the court. But the rest that takes so much of time assistance from AI can be taken for that. It is important to mention here that the role of AI in judiciary would be not replacing the judges but in assisting the judges.[21]

AI AND PRISON ADMINISTRATION

AI can be very effectively used in the administration of the prison system. As far as India is concerned it is a known fact that the prison system in India is very intricate in context of the structure. AI can change the way a prison looks or is monitored. AI can help in the categorization of the prisoners according to their crime, age, background, criminal history etc.[22]

AI can help in making the right decision for the inmate thereby avoiding or reducing the risk. This stem helps in studying the trajectory of the inmate and helps in deciding the best possible options that can be given to an inmate in a prison. The positive effect of the use of AI in the prison administration would mean that there is a removal of any prior prejudice or biases that exists in the mind of the jail authorities with regards to the prisoners.

Artificial intelligence is also being used to decide the question whether the accused is likely to be a recidivist. The prison authorities decide under what type of security a criminal should be placed so that he cannot escape. In all these scenarios, artificial intelligence brings objectivity, efficiency and transparency to the criminal justice system, which humans cannot achieve.

USE OF AI IN PRISONS IN DIFFERENT JURISDICTIONS

[20] 881 N.W. 2d 749

[21] <https://bharatchugh.in/2021/11/24/alexa-jail-or-bail-use-of-artificial-intelligence-in-bail-proceedings/> accessed on 10 January 2024

[22] <https://government.economictimes.indiatimes.com/news/digital-india/how-ai-can-play-a-catalytic-role-in-managing-criminal-justice-system-for-more-equitable-outcomes/89502089#:~:text=It%20can%20effectively%20manage%20drug,of%20the%20accused%20or%20convicts.> accessed on 10 January 2024

An example of China can be given over here where the monitoring of the inmates living in the prison is done through cameras. This surveillance system takes the movements of the inmates not only when the inmate is in the prisons but even outside as well. This helps in creating a database that has reports of all the inmates about their movements and any abnormal conduct. The same is followed in Hong Kong as well. Not just this, prisons here use robotic arms for the frisking of the inmates to find or locate any substance of trafficking.[23]

US has also implemented a technique in their prisons wherein supervising the calls of inmates is done through the use of AI. There are some red marked words fed in the database and if the inmates while having their conversation use any of those words then an alert is sent to the authorities. Such a system would help in avoiding and detecting any crime being planned or smuggling being done. A proposal that has already been floated in the US is with regards to the inmates who are undergoing solitary confinement. The proposal states that they can provide a companion in the form of AI like the use of Alexa who would be called 'confinement companions'. This was proposed in light of keeping the human rights aspect in mind wherein the psychological factors of the inmates also have to be taken care of. Therefore it can be said that the use of AI is not just good in the administration of the prisons but in addition to this also can perform the human touch through the rehabilitative aspect But one criticism of this is that AI cannot replace the human face-to-face contact for the purposes of rehabilitation, which forms a core of the rehabilitative system today.

As far as India is concerned an example of Uttar Pradesh can be cited here wherein a start- up called Staqu launched a platform for video analytics by the name of JARVIS. This platform is an AI tool kind of a 'Video Wall' that would help in monitoring the activities of prisons in Uttar Pradesh. The need for having such a software was to control the illegal activities that were happening in the prisons wherein the activities outside the prison were controlled from inside. This software would help in notifying the authorities immediately as soon as some suspicious activity is reported in the prison. This is taken to be an important tool for the police to make its system strong and fight against crime.[24] In addition to UP, other states where this system is presently working are Punjab, Haryana, Bihar, Telangana, Uttarakhand and Rajasthan.

With the coming into effect of the Criminal Procedure (Identification) Act, 2022[25] Police are authorised to capture and collect the biometrics of persons including their iris and retina scan and in some cases their

[23] Pia Puolakka, Artificial Intelligence in Prisons in 2030: An Exploration on the Future of AI in Prisons, Advancing Corrections Justice, 2021 <https://rm.coe.int/ai-in-prisons-2030-acjournal/1680a40b83> accessed on 20 January 2024

[24] <https://www.deccanchronicle.com/technology/in-other-news/071119/indias-own-jarvis-ai-to-monitor-prison-activities-across-70-indian-ja.html#:~:text=India's%20own%20JARVIS%20AI%20to%20monitor%20prison%20activities%20across%2070%20Indian%20jails,-DECCAN%20CHRONICLE%20%7C%20DECCAN&text=Driven%20with%20a%20vision%20to,%2C%20JARVIS%2C%20in%20Uttar%20Pradesh.> accessed on 11 January 2024

[25] 5 August 2022

biological samples who are arrested by them, those who are facing trial and those who have been convicted by the court.[26]

Another example that can be cited is the use of the TRINETRA app launched by Staqu which is being used by police in Punjab, Uttar Pradesh and Rajasthan which helps in recognizing the faces with the help of tools which read and identify the facial matrix from a recollected data. This is a centralised data which has records in forms of photographs and biometrics of the criminals.

The use of AI in prison management would also prevent recidivism as the data generated through the AI can be used to analyse the modus operandi of the offender in the future. But an important factor that has to be taken in consideration is that we need to trust the AI that is specially programmed to do a particular task only. The AI would go a long way in helping the authorities to improve the management of the prisons and build a robust system.

CHALLENGES IN THE USE OF AI

One argument that is time and again raised by the activists regarding AI is to what extent can the technology be trusted and to what extent can human beings be dependent on the use of AI. Can the software be trusted and can there be a machine and man relationship?

With an extraordinary range of benefits artificial intelligence can be rightly viewed as a transformative technology in the field of criminal justice. The attribute that makes artificial intelligence so powerful is its ability to learn from data and evolve it over time without any explicit human input. The increasing role of artificial intelligence in the criminal justice system also poses certain challenges. These challenges can be addressed by following three principles, namely,

(i) auditability,
(ii) transparency and
(iii) consistency.

In order to ensure auditability, whenever artificial intelligence is used in the criminal justice system, snapshots should be taken of the algorithm that is used and the data which is considered as input so that the same is preserved and is available at a later stage for reexamination. Transparency can be assured by making a company that makes risk assessment software to disclose information about algorithms and data. The companies should not be allowed to take the defence of trade secrets to block access to this crucial information. The access should be enabled in a way that the Courts or the parties can to access the information that is being used by a computer to generate results and the trade secret rights of the company are

[26] The Tribune, Police can noe take Biometrics of Criminals, Law Comes in to force, August 5 2022

also preserved. Consistency means that it must be ensured that even at different times, the system produces consistently the same risk assessment for persons with substantially identical profiles.[27]

Further it is for the human to decide how they want to use the AI, in which direction they want to take it and to what extent they want to use it.

CONCLUSION

To conclude, use of artificial intelligence in the criminal justice system shall be a big step towards ensuring transparency, objectivity and efficiency. AI has the potential to possess a vast range of data and make predictions and decisions that shall help in substantiating the efficiency of police and streamlining the judicial process.

Predictive policing can go a long way in preventing crime by identifying patterns of crime. With focus on areas with predicted high crime rate, the law enforcement officials will be able to allocate their resources effectively. The use of AI tools in prisons can help in effective management of prisons by categorising inmates and facilitating risk assessments involved with different inmates.

The use of AI tools by the judiciary reflects a positive step towards enhancing its efficiency and overcoming the challenges faced by it in the administration of the criminal justice system. The use of AI in sentencing shall help in bringing uniformity and reducing disparities.

Though there are numerous advantages of the use of AI in the criminal justice system, there are concerns regarding trust, transparency and consistency. These concerns should be addressed by using the principle of auditability and ensuring transparency so that the values of fairness and justice are upheld in the criminal justice system. The technology needs to be upgraded, the systems need to be made more secure, the internet has to be made faster and we need to have more access to the system. The delicate balance between the use of AI and human judgement needs to be maintained to foster a criminal justice system which is just and efficient with no trust deficit.

[27] John Villasenor & Virginia Foggo, "Artificial Intelligence, Due Process and Criminal Sentencing" [2020] MICH. St. L. REV. 295