

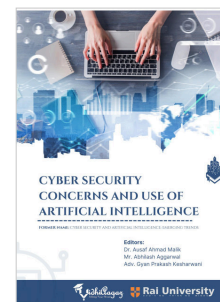
CHAPTER 7

Artificial Intelligence in Criminal Justice System: A Socio-Legal Analysis

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ARTIFICIAL INTELLIGENCE IN CRIMINAL JUSTICE SYSTEM: A SOCIO-LEGAL ANALYSIS

Pooja Narayan⁸

ABSTRACT

John McCarthy, father of Artificial Intelligence defined it as, “the science and engineering of making intelligent machines.” It is actually an ability of computer- system to perceive and response to its environment independently without human intervention while using the cognitive ability and logic of a human being. Experiences and learning from them is the greatest ability of humans, AI mimics this and enables machines and their software to learn from experience. Indian Judiciary has been very quick in adopting the AI technology and its incorporation through e-courts and online hearing, especially during the covid-19 pandemic, has proved to be a milestone in itself. In criminal justice system particularly AI is being used for its various features, one of these being that of facial recognition. Many a times the crime department has to analyse a lot of data in order to establish the identity of someone. If it is done by the humans then it will be highly time-consuming, tiring and high chances of containing human-error. But with the development of AI this has become comparatively fast and error-free. Another aspect is that With AI, volumes of information on law and legal precedence, social information, and media can be used to suggest rulings, identify criminal enterprises, and predict and reveal people at risk from criminal enterprises. This paper dwells into the meaning of AI, its history with discussing in details its role in the criminal justice system, along-with the possibility of misuse or error factor and finally the future of Artificial Intelligence.

Keywords: Artificial Intelligence, Criminal Justice System, misuse, errors, future.

INTRODUCTION

Artificial Intelligence is a fantasy turned into reality. Long ago we only dreamt about something as efficient as AI to make us do the work a little less and more perfect. It has affected our lives in variety of ways including phones, transportation, finances, and health care. This revolution is much bigger and fast than the Industrial revolution. The Artificial intelligence is an advanced form of computer system technology which has the capability of working independently and without any intervention of human, but with the cognitive ability of humans. John McCarthy, the father of Artificial Intelligence, defined it as “the science and engineering of making intelligent machines”. This robot-like technology is replacing humans with machines and doing the same work more efficiently and without any hazard which humans are prone to.

The Indian Judicial system has long been suffering from the pendency of cases, poor research quality and various other problems. To solve this Hon’ble Supreme Court of India has already taken steps by launching SUPACE, LIMBS and SUVAS, which are e-governance mechanisms. Through these projects Artificial Intelligence will act as a catalyst in providing timely, effective and quality judgments. This will bring speed to the judicial system with proper record maintenance, transparency, organized data of the cases filed; the courts will become more approachable to the needy, etc. Artificial Intelligence can quickly find out the relevant precedent on a particular topic which is of utmost importance in arriving at suitable Judgments’. The incorporation of the Artificial Intelligence in the judicial administration will

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ensure effectiveness of law enforcement systems. The former Chief Justice of India Mr. Sharad Arvind Bobde, "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."

With adoption of new laws i.e. Bhartiya Nyaya Sanhita, 2023, Bhartiya Nagarik Suraksha Sanhita, 2023 and Bhartiya Sakshya Adiniam, 2023, there are some features introduced in the Indian Criminal Justice system on par with the current technology, such as the delivery of summons through electronic means, recording of statements of the witnesses online and many more. All these provisions though being a welcome step, it proves that how comprehensive is the effect of artificial intelligence on the society.

THE ROLE OF ARTIFICIAL INTELLIGENCE IN THE CRIMINAL JUSTICE SYSTEM

The artificial intelligence involvement in the criminal justice system can be better understood under the two wings. Firstly, as a carrier of Justice and secondly as a crime preventer-

1. Carrier of Justice: It can contribute towards the justice system by being of assistance to the courts. Such as recording the data, keeping the records of the cases being filed, disposed of. It also helps in finding the correct precedent out of millions of case laws relevant to a particular situation, which lower the human labor to a large magnitude and also helps in the preparation of case and judgment giving in a more wholesome way, minimizing human error. Artificial Intelligence can tag or club together cases that are same, similar, related, or have a common legal issue which will contribute towards analogous hearing for faster disposal of the case. For example murder cases can be taken in one series, theft can be taken in another etc. Furthermore, AI can be used for document evaluation as it has the ability of data mining and interpretation, which can conclude the possible outcomes of facts based on logical outcomes. So when it comes to voluminous record in a particular case the artificial intelligence can come really handy.

Artificial Intelligence can contribute significantly in the legal aid by giving preliminary virtual advice which will be based on the previous data and recorded advice of the professionals. This can be done by AI through machine learning, deep learning.

Translation into different languages is one of the biggest contributions of the artificial intelligence, now the understanding of a foreign language is completely in our hands i.e. our phones. This development is also extended to the courts wherein the judgments in regional languages can easily be translated in English or other regional languages helping greatly the litigants as well as the legal fraternity.

With the involvement of AI in the judicial system significantly decreased the human bias and this introduction also created a double check and balance.

2. Crime Prevention: Artificial Intelligence has very wide scope in the prevention of crime due to its ability of intelligent prediction. For instance technological surveillance with the help of AI

guided surveillance which through self-learning Capabilities to track the direction of data record by CCTV.

With the help of Artificial Intelligence now the status of cases can be tracked in real time. Through websites of the courts whatever happens in a particular case can be updated to the litigants without any hassle, which existed previously. Whether a case has been dismissed or passed over to another date or any order is passed, this can be now very easily find out from the website and the litigants need not run to the courts to know about the next date or order. Artificial Intelligence is capable of facial recognition which is very effective and efficient in recognizing the accused and hence making tracking and conviction much easier. It is very much effective in crime prediction as well as raising caution against it.

BRIEF HISTORY OF ARTIFICIAL INTELLIGENCE

The biggest capability of human beings is its ability of learning from the experience and artificial intelligence has adopted this very feature of human. It can learn from the previous data and deduce independent logical decision as fit as human cognition. To understand AI better it is important to dwell into its history briefly.

The beginning of this journey can be contributed to Alan Turing, a young polymath who explored the mathematical possibility of artificial intelligence who wrote a paper on computing machinery intelligence back in the year 1950. Next in the year 1956, John McCarthy, who is recognized as the father of Artificial Intelligence, gave definition to it.

In between the years 1956-1974, efforts and researches were made which led to the ability to formulate logic and rules to interpret and form sentences. The AI flourished as computers could store more information and became faster. Next development took between the years 1980-1987, during which complex systems were developed using reasoning algorithms capable of mimicking human experts. These systems though had ability of complex reasoning but still they could not learn new rules to evolve and expand their decision making.

During 1990s and early 2000s artificial intelligence achieved many of the landmark goals. For instance in the year 1997, chess grandmaster Gary Kasparov was defeated by IBM's Deep Blue, a chess playing computer program. In this same year speech recognition software was implemented on the windows.

Present- we are living in the world of big data, collected and processed by the machine which would be almost impossible for a human being to manually evaluate. There is Artificial Intelligence everywhere. Every day, we can see new developments in this field from automated calls to robots taking our food orders in restaurant. From banking sectors to education to health to transportation artificial intelligence has made the life of everyone easier. Previously we used to go to then railway station and stand in line for hours for a ticket now it is available simply on a click.

Future – Artificial Intelligence is here to stay. It is not going anywhere rather it will grow bigger and bigger. From taking about flying cars to actually making it a reality does not seem so fantasied now. Driverless cars and trains might be a just around the corners. AI also has a lot of drawbacks; it definitely

has eased our lives but also gave birth to a lot of crimes. Such as, deep fake videos which can pose anyone as somebody else and create an entire fake narrative. Cyber frauds are on all -time high.

MERITS AND DEMERITS OF ARTIFICIAL INTELLIGENCE

Like everything Artificial Intelligence also suffers from various merits as well as demerits. In this chapter we will be discussing the various facet of AI.

Merits- Firstly, AI has given us the speed. The work which previously took a lot of time and human labor can now be done in minutes or even in seconds. This expeditious nature of technology has become a boon in our lives. For instance, money withdrawal which previously required going to bank, standing in line for hours is now transformed into having it in our hands, all the time. With the introduction of UPI system we can send money, receive it any minute any second of the day. This has made it so much easier and convenient when standing at a hospital to pay bills without leaving our loved ones.

In the criminal justice system speed is of outmost importance. It depends upon how quickly we can analysis the data and catch the criminal. The same data analysis which took days to compile and deduced can now be done in minutes which gave the law enforcement much needed strength. Furthermore any criminal investigation starts with the filing of FIR and delay in filing it raises a question about its credibility, but now with the introduction of E-FIRs it can be filed almost instantly and hence reducing the doubt about its authenticity.

Secondly, accuracy is the gift which AI has given us. When analyzing plethora of data there is a possibility of human error but with the advent of artificial intelligence this problem has been completely resolved and now every data can be analyzed to the minutest details without an iota of error. This has come as a blessing for a lot of sectors working and relying on the analysis of large data.

One of the sectors analyzing large data is criminal justice system where previous records, current data such as CCTV records, emails etc needs to be evaluated fast and accurately which is given to it by the AI.

Thirdly, Artificial Intelligence has given the freedom of storing data as old as needed. Previously data storing was a big problem as there has to be a designated place for storing it and with data mostly on paper it fades after few years which makes it impossible for retrieving any detail which is old. But now with the AI storage has become not a problem because data can be stored in the system and it remains as it is for eternity to be used as and when the need be.

Fourthly, the decisions given by the Artificial Intelligence is unbiased. They are based on logic, data and rules which significantly removes the human biasness.

Demerits – Firstly, Violation of privacy. With the advent of Artificial Intelligence the privacy of an individual has been highly compromised. As much life has become easy with the technology so much is privacy is being breached. For instance we put in our details on a food delivery application or online shopping application and in no time we start receiving messaged from them and right now the concern is so high because it has been seen that these applications can actually hear what we are talking about

and in next second we start receiving advertisement of the same product we were talking about. This is very scary.

Secondly, increase in the types of cyber-crimes. Cyber-crimes have always been a major concern for the law enforcement agencies but with the advancement of technology new types of crimes have also came into existence. For instance a new crime known as “digital arrest scam” has come into the society wherein the scammer impersonate themselves as some official and demands money from the victim in the lieu of fine. Recently a chairman of very renowned company was duped by a scammer when they posed themself as the chief justice of India, through a skype call and passed a fake order of Rs. 7 crore fine.

Thirdly, high maintenance. These automated highly efficient machines though very useful requires very high maintenance which makes them costly and hence cannot be afforded by everyone.

Fourthly, reducing job opportunities. Previously the work which used to be done by the humans can now very easily be done by the machines, hence reducing the employment opportunity for the masses. It is even said that there might come a time where there be no need of humans for doing any work, which is threatening and scary.

PANDEMIC LED ADVANCEMENT OF TECHNOLOGY

It has been said that necessity gives birth to new inventions and this is what happened during the covid-19 pandemic. When entire nation was shut down initially, it was thought of to be a temporary situation but when the pandemic held its grip and made it impossible to work then the technology came as a blessing in disguise. Every possible work which could be done through the internet while sitting at our homes was adopted and hence the nation which came to a halt started working again. This technological or digitalization was adopted by the Hon’ble Supreme Court of India at very initial stage of pandemic. It won’t be wrong to state that Supreme Court was among the firsts to adopt this method. In this chapter we will discuss some of the portal launched by it.

1. **SUPACE**- it stands for Supreme Court Portal for Assistance in Court’s Efficiency. This portal, which is Artificial Intelligence enabled mechanism, collects data, relevant situations, precedent which exists in relation to the circumstances and legislation in respect of case. After collection of all the relevant data it prepares a report which is presented to the court as a preparatory report. This helps the Judges who are seeking some input for a particular case. Though the Supreme Court was not the first to adopt this portal, rather the Bombay and Delhi High Court Judges have already adopted it for the criminal proceedings.
2. **SUVAS**- it stands for Supreme Court Vidhik Anuvaad Software. This Artificial Intelligence enabled portal has been developed for the purpose of translating the judgements into the regional languages. This portal is developed with the intention of reaching more and more litigants easily, making the judgements of the Supreme Court more understandable. This tool initially was able to translate judgements into nine vernacular languages, which are Assamese, Bengali, Hindi, Kannada, Marathi, Odiya, Tamil, Telugu and Urdu. In the year 2023, the Kerala High Court, Delhi High Court and Karnataka High Court also used this tool for translating

judgements into several regional languages. In this regard cases related to Labour, Rent Act, Land Acquisition and Requisition, Service, Compensation, Criminal, Family Law, Ordinary Civil, Personal Law, Religious and Charitable Endowments, Simple money and Mortgage, Eviction under the Public Premises (Eviction) Act, Land Laws and Agriculture Tenancies and Consumer Protection are being translated.

SUGGESTIONS

After an analysis of various aspects of the use of Artificial Intelligence in the Criminal Justice System these following suggestions can be drawn:-

1. **Optimal Use:** The use of AI should be optimized. The approach should be to use AI only as and when required. It should be used on urgency basis, when need arises. For instance using AI for tabulation and calculation of bulk of data because human calculation of the same would not be accurate and fast. But using AI for generating images which are completely false is dangerous and also waste of technology.
2. **Development:** The AI technology requires more development. It has till time have been developed so as to be of great help to the humans by doing difficult tasks faster and in more accurate way but now it needs to be developed around protection creation. The biggest concern around AI is violation of privacy and there is an urgent requirement of solving this issue.
3. **Strict Legislation:** There is a need for legislations which are strict, appropriate and directing towards the when, how and how much use factor of the Artificial Intelligence.
4. **Human Inclusion:** The work should be done towards inclusion and supervision of humans as it is not possible for a machine to have emotions. The justice system works not only on the legislations but also on equity and that cannot be taught to the machine.

CONCLUSION

The Indian Justice system is highly in the need of Artificial Intelligence as it is suffering from burden of cases, vacancies, lack of accurate and organized data, timely tracking of the cases, which is just increasing the burden on the justice system and making justice delivery delayed. Everyone is aware of the fact that a case once filed in a court it takes almost 20-30 years to finally get resolved, which in turn faces the consequence of litigants originally filling the case not being able to see the justice delivered. It is being said that justice delayed is justice denied and this is so true in the case Indian Justice delivery system. With the advent of Artificial Intelligence and its use definitely gives hope that the justice will now be reached on time and be given to the person seeking it instead of to their legal heirs.

Artificial Intelligence has the feature of reforming the criminal justice system as a carrier of justice as well as a crime prevention mechanism. In the little time of its invention and incorporation it has proved itself to be highly useful and effective. Be it speed or accuracy artificial intelligence is checking all the boxes for better justice delivery system. With the advent of Supreme Court Portal for Assistance in Court's Efficiency (SUPACE) and Supreme Court Vidhik Anuvaad Software (SUVAS) the litigants and the judges are getting the much needed support. With the translation of the judgements now the

litigants can understand it and no one can make them fool by misinterpreting it. It might seem a small step but actually it is a very progressive and striking on the crime of middle man misinterpretation.

However incorporation of Artificial Intelligence is not free from defects and drawbacks for instance its use and maintenance is high making it expensive and not affordable to everyone. Other than this due to the advancement of AI new kinds of offences have also come into existence. It is like this the more we are trying to use the technology to deal with faster and accurate resolving of the cases the more new kinds of cyber-crimes are surfacing. The criminals are finding new ways of duping people which is also very worrisome.

At this juncture it can be said that the use of AI is proving to be very beneficial but we still need adherent legislations to stop its misuse.

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