

Role of Artificial Intelligence and Law in Future Prospect

Syed Sameer Ali¹, Raju Shanmugam², Manivel Kandasamy³

¹ Ph.D. Research Scholar, Unitedworld School of Computational Intelligence,
Karnavati University, Gandhinagar Gujarat, India

² Professor and Research Supervisor, Unitedworld School of Computational Intelligence,
Karnavati University, Gandhinagar Gujarat, India

³ Professor and Research Co-Supervisor, Unitedworld School of Computational Intelligence,
Karnavati University, Gandhinagar, Gujarat, India

Abstract: - This paper provides an overview of role of artificial intelligence in area of law. Based on previous investigations done-significance and dramatic increase of machine learning and artificial intelligence in criminal justice system especially in foreign countries like USA gun detection, DNA analysis, video analysis, and crime forecasting. AI driven decisions can draw data from any of your life but its credibility and integrity are questionable. It is seen AI systems become sophisticated and play important role in society so arguments that they must have some legal personality credence. While the large part is devoted in comparative study so less attention paid to complex entities. It promotes innovation and investment in AI as technology by giving protections and incentives to its developers and users. AI applications will pave new ways in near future to assist in criminal and civil judicial system and ultimately improve public safety. Pattern analysis of data can be used to disrupt, detect and prosecute crimes. AI technology has potential to study in and around situational awareness and context, thus helping police well-being due to better responses to possibly dangerous situations. Many of the developments under the banner of Artificial intelligence that matter to legal system involve circumventing law rather than creating new ways to break in order to enforce regulations settling conflicts. It supports assessment of key topics arranged in a systematic manner.

Keywords: Artificial intelligence, Decision making, Justice system, Law

1. Introduction

Intelligence possessed by humans, animals and when extended to machines or software's is termed as Artificial Intelligence [1]. In computer science the term "artificial intelligence" [15] for the first time used in august 1955 in a proposal of research project authored by John McCarthy, MarvinL. Minsky, Nathaniel Rochester and Claud Shannon [2]. In vision to the use of AI we overestimate short term impact of a new technology but underestimate its long-term impact. Although AI technology widely used in healthcare, entertainment, education, industries but its potential can be widely used in area of Law for understanding and solving pending cases in our judicial system despite having such a large legal practitioner force. It is said "Justice delayed is justice denied" which means if justice is not given in time, it is as if no justice is served.

Today we are in Information age everything has been digitized-Police station, Court rooms, websites, apps have been developed to facilitate application for filing cases and tracking its record. Online videoconferencing facility, awareness programmes on youtube channels for lawyers and webinars for clients are conducted from time to time.

More work is to be done in areas of collection, analysis of good quality public safety point videos for getting useful information. AI based DNA analysis mechanism has large potential in solving criminal cases. For exploring this areas government must engage young scholars and think tankers. Predictive analysis is a process which uses

large volumes of data to forecast potential outcomes [3]. With AI volumes of legal precedence information can be used to suggest rulings, identify criminal and predict people at risk.

2. Literature Review

I have started personal one to one interview questionnaires sessions in field as preliminary study by visiting stakeholders (lawyers, clients) and find that before implementing AI in the existing judicial system many glitches have to be resolved. The major problem is that Audit-check system fail in case of judicial matters at every level and also the time taken for solving cases is a big problem. Also, it is noticed when a FIR is written by a non-law graduate police hawaldars/officers there may be chances of deviation. The other two stakeholders' lawyers and judges in competencies are also responsible for increasing dates. A term Black Justice is seen there are about 5 crore cases pending in civil courts at district, high and supreme court level and also additional 5 crore pending cases in SDM, ADM, DM, Commissionerate level, consolidation cases.

Recently e-committee of Supreme court said that a designated area has to be setup in each subordinate court complex as servers house and related ICT equipment's. Earlier in Bihar only 41 locations covered in e-court project of Phase-1, but now it is covered in 79 locations, 37 district courts and 42 sub district courts, LAN has been expanded, provisions of computer servers increased, CIS software coverage increased, All district court information migrated to Drupal version 7.59, Information kiosk in each court complexes to be completed, Display boards in court and subordinate court, provision of power backup for ICT increased, ICT training for judges and court staff necessary for capacity building [4]. Similarly this work to be done for each and every state of India.

It is seen foreign countries like Denmark, Norway and Finland tops Judicial ranking compiled by World Justice Project Rule of law Index 2021 and India rank is 79. One of the major factors is openness and willingness of governments which measure the quality and speed of information collected, processed and published [5].

The measuring of order and security is measure of crime and violence prevailed in a country. Citizens must also uphold for their civil and human rights for example in a country like Netherland courts are so much transparent that with about 14 judges per 100000 residents it took on average of 87 days to handle a trial in the country.

3. Need for the study

According to National Judicial Data Grid (NJDG) figures are horrible for a developing country like India. Original case type wise pendency are 70.75% (26962573) warrant or criminal cases pending, 14.76% (5623405) civil suits pending, 6.50% (2478714) Session Case, 2.77% (1056180) Misc cases, 2.29% (872127) MACP, 1.76% (671103) Marriage petition, 1.17% (others).

It is need of hour in a month warrant cases increased to 70.75% (27069264), civil suits cases 14.74% (5640934), sessions case 6.51% (2491299), Misc cases 2.81% (1076497), MACP 2.29%, (876559), Marriage petition 1.75% (670739), 1.14% (others).

According to stage wise total pendency's which can be seen in pie chart given as:

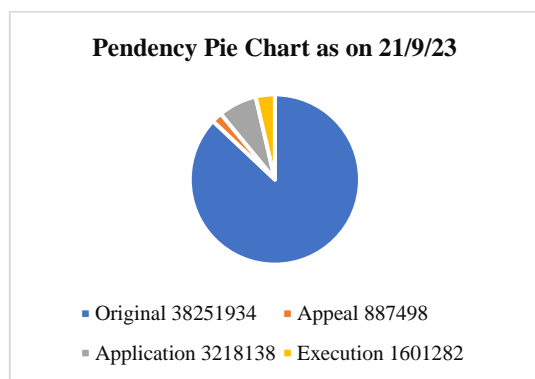


Figure 1

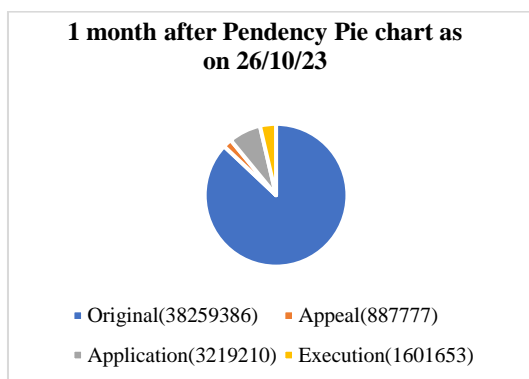


Figure 2

Figure 1 & 2 Note: Above Comparative data from National Judicial Data Grid [6]

4. Objectives of the study

After having more than 10 years of teaching experience in various types of educational institute and as a social worker in uplifting society what I found that there are some major challenges still we are facing i.e; Our education system lacks law as a subject in its syllabus, From class 8 Law as a subject must be implemented starting from basic terminology then to some case studies in senior secondary, Moot court must be encouraged in school activities pertaining to different types of cases handling for all these we can develop AI based educational tools. Also, Government of India must amend and make more strict laws in giving justice in fastly and smoothly to its citizens. For this all the investigation tools must be operated in an automated AI based technology. This can be understood by using ATM anyone who want money or deposit money anywhere anytime can go to ATM and use it. This revolutionised our financial system by eliminating corruption.

Narrow AI can be integrated into policing and criminal justice system by a set of techniques and constellation of technologies including machine learning, natural language processing, reasoning and perception [7].

5. Hypothesis

After conducting this exploratory research, I will get insight knowledge and will find the main reasons for pending cases in our judicial system and will seek certain solutions to resolve this problem. As already we are having many software's, websites, apps, then also due to increasing pressure of number of cases and very a smaller number of judges is also a very big problem [8].

Artificial intelligence advancements have the potential to advance humankind through increasing efficiency, productivity and cost-savings [9]. AI has a series of techniques clubbed together for its working based on Logic i.e.; Symbolic AI that produces reasoning based on facts and rules, Machine learning subfield of AI defined by Harry Surden as Computer algorithm learns from experience and improves its performance over task [10].

This learning starts through with a body of data and tries to derive a rule or procedure that explains or predict future data. It involves two steps-First is learning phase where the machine learns from input data (patterns, pictures) and find parameters for appropriate task in hand. Secondly the learned parameters as inputs which are used for further task, this stage is known as inference stage [11].

For instance, human cognitive comprehension is largely incapable of comprehending the mathematical calculations occurring at the hidden layers of neural networks or the mutating capabilities of genetic algorithms [19].

6. Research Methodology

Here the research will be based on review and analysis of existing literature, research journals, and case studies on the cons and pros on use of artificial intelligence in law. First step involves gathering authentic data from relevant sources. The information collected will be evaluated to identify key loopholes, then on the basis of conclusions, Group discussions with stake holders, surveys conducted a possible related solution based on AI applications can be implemented. Also, different ethical views will be taken into consideration from every angle possible.

AI bias-With the help of AI algorithm machines can take autonomous decisions which are widely used but causes societal concerns. For example, COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) risk assessment tool a particular algorithm used in USA courts which determines the possibility of a criminal to be a re-offender. It was found by an investigation news agency ProPublica that case claimed by COMPAS is black defendants [12].

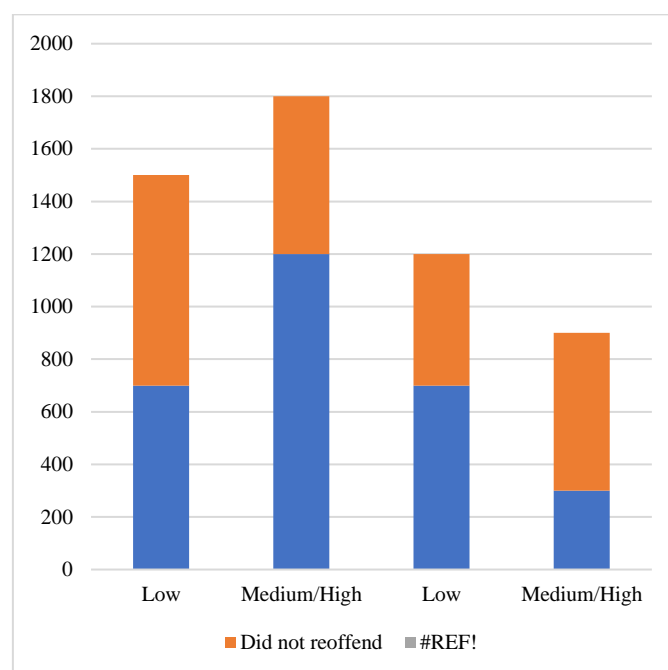


Figure 3 Note: From Washingtonpost.com [12]

Defendants' distribution by race among risk categories. Due to higher recidivism rate of Black defendants compared to white defendants, a greater percentage of Black defendants are classified as medium or high risk. Therefore, compared to white people who do not reoffend, Black people are also more likely to be classified as higher risk [12].

The American Bar Association (ABA) addressed the use of technology in Model rule 1.1, Comment8, by stating that lawyers must be technologically competent and are required to use due diligence in order to avoid committing a tort when evaluating legal technologies [13].

Which technologies to be used yet to be carefully taken into consideration to best prepare future attorneys. From this it is seen what different topic law schools are teaching in their curriculum. Our aim is to create a bright line and uniform standard in all law schools in producing tech-savvy lawyers. The legality in Islam is that everything permissible unless prohibition in Quran, the Holy book of Muslims or sunnah the practice and tradition of Prophet Mohammed. It is noted that "Islam recognizes Allah as sole creator and creation of AI and robots are merely adjustments and modifications of materials in order to improve life" [14]. Law should not stand in a way of progress. However, law is meant to protect human rights so regulatory oversight is necessary.

In the case of Jaswinder Singh vs State of Punjab, the bail plea was declined by Punjab and Haryana High court citing allegations made by the prosecution regarding the petitioner's involvement in a violent and fatal attack. The presiding judge seeking a more comprehensive perspective on matter of granting bail in cases involving cruelty, search input from ChatGPT. It is to acknowledge that the aforementioned utilization of ChatGPT does not reflect any stance on the merits of case and trial courts will not take these remarks into considerations. The purpose of this reference was solely to facilitate a broader comprehension of bail jurisprudence in instances where cruelty constitutes a determining factor [16].

7. Usage of AI in Different countries

USA

AI driven tools COMPAS aid judges in assessing the risk involving and analysing various factors such as criminal records, socio-economic background and mental wellbeing to anticipate the probability of re-offending. Additionally, the US sentencing commission employs AI to establish and enforce sentencing guidelines in order to ensure equitable and just penalties.

The US judicial system employs automated conversational agents to provide responses to commonly asked queries pertaining to court proceedings.

SAUDI ARABIA

Riyadh announced in 2017 Sofiarobot, that position itself as a woman was granted the citizenship of Saudi Arabia. This step contradicts the number of laws that determine the model of behaviour of subjects [18].

JAPAN

Similarly in Japan in 2017 provided a permit residence for chatbot Shibuya Mirai under special regulation (Cuthbertson,2017). However, this contradicts residence laws of Japan. The law states two options, namely by birth or neutralization [18].

8. Conclusions

It should be noted World community has to come up with a treaty to control and manage the development of Artificial intelligence by taking into considerations of all legal aspect and in consultations with all stakeholders. Feedback will enable us to better evaluate results [17]. Currently there is no legal framework at national or international level. The purpose of establishing liabilities and rights related to Artificial intelligence must be thoroughly reviewed before implementation, it should not harness the natural rights of freedom and humanity. The united convention on the use of Electronic Communications in International Contracts mentions it in Article 12, which stipulates that the person whose computer was programmed-whether a natural or legal entity-should ultimately bear responsibility for any messages produced by the machine. In nearby future it is possible that AI will replicate the adjudicatory function similar in a manner indistinguishable from a human [20].

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