USE OF ARTIFICIAL INTELLIGENCE IN JUDICIARY – A SOLUTION TO THE PROBLEM OF PENDING CASES

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ABSTRACT

The huge pendency of cases is a reason of worry and to address this, different actions are being taken like more preference to ADR mechanisms and rejection of obsolete laws, however apart from these conventional ways of trying to address the problem, using the newly discovered field of Artificial Intelligence to adapt up to this problem is yet unexplored and would prove to bring about a transformational change in the system of judiciary. Since courts and judicial system in India are now experiencing a phenomenal change by going computerized, the developing field called 'Artificial Intelligence' often touted as the fourth industrial revolution may help in reducing the huge backlog of pending cases. Some of the developed countries of the world like the U.S and Canada have already used AI in their judicial system say to grant bail or to decide whether to grant parole or not. This won't just spare legal time of the courts prompting better use of taxpayers' money but also reduce the possible biasness that the judges have sometimes. As Artificial Intelligence has just demonstrated its value in various fields, for example, medicine by assisting doctors in conducting surgeries, transportation in the shape of self-driving cars, marketing by tracking consumer buying patterns,and so on., it will be a boon to guarantee sustainable and speedy justice delivery system. The objective of this study is to examine the extent to which AI can be utilized by the courts in India while maintaining the highest standards of judicial independence and acumen.

INTRODUCTION

Artificial intelligence is the development of computer systems that can perform tasks that may require human intelligence.[i]Artificial Intelligence has benefitted humans in many ways. Most importantly, Artificial Intelligence is to reduce human causalities in wars, dangerous workspaces, car accidents and natural disasters. On the other hand, it also helps in making everyday tasks easier such as: cleaning, shopping and transportation.[ii] The advantage of a strong Artificial Intelligence is it is able to think and act just like a human. It can develop itself and are able to learn from experiences. The portrayal of strong Artificial Intelligence is still in question. So far, the representation in Hollywood cinemas of robots are the best example of it. However, Artificial Intelligence has touched every aspect of discipline not only science. In a nutshell, Artificial Intelligence is the capability of a machine to think and act like humans and may be even replicate cognitive functions that humans performs with their human minds. For example, learning and problem solving.[iii]

An Artificial Intelligence powered machine can usually become aware of its environment, identify the issue that it is intended to solve, get the various options for doing so, figure the expense and advantage of every alternative alongside the likelihood of accomplishment of every one of such choice and execute the task of taking care of the issue with the most possible accuracy. Moreover, an Artificial Intelligence controlled machine is also capable to improve its working through understanding on its own, through experiences.

These remarkable highlights of an Artificial Intelligence powered machine have made it plausible to utilize them in myriad fields like Medicinal services, Automotive, Defence, Marketing, Education and so forth. In Healthcare, Artificial Intelligence is helping in medical diagnosis, overseeing health records, designing treatments, overseeing prescription and medication creation.[iv]It is likewise helping specialists in directing medical procedures with exactness.[v]Driverless vehicles are the most glaring example of Artificial Intelligence in car industry. In the field of fighting, Artificial Intelligence is being utilized for battlefield examination and tactical choices and furthermore for creation of intelligent and autonomous unmanned weapon frameworks.[vi]

With the introduction of chat bots with handle client inquiries, picture and voice recognition strategies for quicker search results and recommendation engines that utilize client's data to

recommend items to them fit to their necessities, Artificial Intelligence is making an imprint for itself in the field of advertising too.[vii] Education is another discipline where Artificial Intelligence has been making ripples. Utilizing machines to check and assess answers to multiple choice questions is presently an ordinary thing as software developers are taking a further step and are creating software that can evaluate the subjective content as well.[viii] Pearson has just proposed that in future, students will have Artificial Intelligence as their partner that will monitor their presentation directly from school till graduation, therefore, helping them to understand their qualities and work on their shortcomings.[ix]

PRESENT UTILIZATION OF ARTIFICIAL INTELLIGENCE IN THE LEGAL FIELD WORLDWIDE

Having turned out superbly well in these fields, it is suggested that Artificial Intelligence can be utilized in courts to handle the issue of huge pendency of cases by helping judges speed up different legitimate procedures. In any event, for law firms and legal advisors, Artificial Intelligence is as of now ending up being aid regarding saving money and time. For instance, legal counsellors are presently utilizing AI powered speech recognition software such as Dragon[x] for quick drafting and note taking. Thus, AI fuelled machines are helping attorneys review reports particularly contracts with expanded efficiency and that too in a small amount of time that is typically taken up by people.[xi]

Contract Intelligence or COIN is a software that is by and large widely utilized for this reason.[xii] Not just this, in an ongoing rivalry between legal advisors and an Artificial Intelligence controlled machine to foresee the consequences of cases, the AI powered PC had the option to anticipate results with 86.6% exactness when contrasted with 66.3% precision of that of legal advisors.[xiii]These features of AI will likewise be utilized in future by attorneys in in advising their clients best legal course of action. Legal Research is another territory where the attorneys are depending upon Artificial Intelligence machines.[xiv]A few instances of utilization of Artificial Intelligence in Legal Field[xv]:

1. Wusong Technologyin China is working on digitizing the manner in which Courts work by utilizing Artificial Intelligence powered robotchatbot called "FaXiaotao" which offers its usersa case examination and help them in finding legal advisors.

2. A robot called Xiao Fa was placed into activity at the lawsuit centre at Beijing No 1 Intermediate People's Court to respond to questions verbally or take inquiries on its screen with a touchscreen or console and print reports out as well.

3. The Singapore based Wong Partnership also grasped Artificial Intelligence innovation from London-based AI firm Luminance to help its corporate/M&A practice. The firm uses the innovation for due diligence of M&A exchange archives and to feature sections that might require human intervention.

4. The Singapore office of Law office Linklatershas collaborated with a software company, Eigen Technologies, to create Nakhoda, an Artificial Intelligence (AI) program that utilizes natural language, in which computers can perceive and react to human language to read contracts and reports, for example, NDAs.

5. South Korean law office Yulchon creates innovation that gives low-cost compliance tools, including applications, for customers. Additionally, this firm is reassuring its lawyers to make new solutions themselves.

6. An Indian firm, Cyril Amarchand Mangaldas is currently utilizing the intensity of AI for contract analysis and review by joining forces with Canadian AI assistant Kira Systems.

7. New businesses like Case Mine and Near Law are attempting to rethink legal research by utilizing Visual Search and the Case Ranking calculation to show the most pertinent cases rapidly. The algorithm sorts and positions over 300,000 case records across 20+ Courts/Tribunals to turn out with the main 50 cases. The one of a kind methodology exquisitely recognizes the key 0.01% of cases that are important to the client.

THE PROBLEM OF PENDING CASES IN INDIA

There are numerous reasons why the number of pending cases is increasing day by day. Some of the reasons are- Capacity constraints, power battle, increasing literacy, government is the largest litigant, inefficiency in lower courts, fast track courts battle and institutional failure and so forth.

As of April 2018, there are more than three crores cases pending over the Supreme Courts, the High Courts, and the subordinate courts (including district courts). In the High Courts, 23% of cases have been pending for more than ten years. Further, over 29% of the sum total of all the cases have been pending somewhere in the range of two and five years as of April 2018. 2 out of each 3 detainees in India are under trial, i.e., an individual who has been blamed or accused of committing an offense, yet has not been convicted is still, presumed innocent.

IMPACT OF PENDENCY ON DIFFERENT AGENTS OF INDIA

1. Judiciary- The witness may lose memory, may disappear, disinterest in judicial careers; wastage of limited resources.

2. Society- Delays in the investigation and prosecution of criminal cases dissolves faith in the rule of law and the criminal justice system[xvi], which has genuine ramifications for the authenticity of the judiciary from a societal perspective. Pendency additionally expands the expense of legal fee.

3. Government- High pendency and deferrals have financial expenses because of lost days and condition of suspension of business. Decreasing trust in the framework to implement contracts and secure private property sorting to alternate means which brings corruption. India stands 164/189 countries in terms of enforcing contracts.

4. Individual- the pendency of a criminal case resembles a sword hanging over an individual's head, and straightforwardly influences their freedom, free movement, and interaction in the public eye, regardless of whether the accused is not in prison.

ROLE FOR ARTIFICIAL INTELLIGENCE IN THE LEGAL FIELD IN THE INDIAN CONTEXT

Limited role in increasing the capacity constraint but Artificial Intelligence can play a role in effective court room management scheduling, attendance tracking etc. thus making the efficiency go up. The prediction algorithm of Artificial Intelligence might help the in deciding whether to take up a case or not. Digitization followed by court room management systems can

help in improving the efficiency of the whole court room system. Auto-error detection and predictive algorithms may help in reducing the need of a lot of staff support as well. A single source of instant truth of the case and court room data would bring transparency and its working can eliminate some of the institutional failures.

Artificial Intelligence can intervene and help in both civil and criminal cases. For the civil cases, it can intervene in institution of suit; issue and service of summons; written statement; framing of issues; evidence; and judgement. For criminal cases, it can intervene in First Information Report; filing of charge sheet; framing of charges; and delivery of judgements.

ALGORITHMS OF ARTIFICIAL INTELLIGENCE

Short term

It can help in setting up a Centre of Excellence for the Judiciary which will be multi-disciplinary involving tech and legal tools for academics and practitioners; think tanks and Nodal Implementation Agency as well. This will report to the union ministers, state ministers and the e-committee of the supreme court on a quarterly basis. The objective will be to research on bias in Artificial Intelligence; set Artificial Intelligence objectives; develop and extract data sets and train model; chart out implementation roadmap for the Artificial Intelligence algorithms and digitizing and sanitizing Indian Penal code and Indian Constitution in a format that can be read by the machine.

Medium Term

Government is the major litigator consisting of 46 % to 70% of all the pending cases in Courts in India. 90% of appeals had been made by the Kerala government which had failed, and which suggests that those appeals should not have been filed in the first place. Therefore, the Artificial Intelligence comes into the picture, where cases like these can first be reviewed by Artificial Intelligence. Thus, before planning to file a litigation against another department, the government agency can use an artificial intelligence based predictive algorithm to see if this case is even worthwhile to litigate.

Long Term

There are two parameters: risk assessment and judgement assistant. In the risk assessment, the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) system, developed by a private Michigan-based company called Equitant and widely used to weigh the person's risk of committing another crime. Such systems can give insights that can help a judge arrive at a bail processing decision faster.

The goal is to use machines to help humans make better legal decisions and these judgement assistants can help judge make a decision faster.

BIAS IN ARTIFICIAL INTELLIGENCE

There are two kind of biasness that can happen. First, bias in data; and second bias in artificial intelligence algorithms.

Ways to Mitigate

There are four ways to mitigate as we cannot stress enough on the importance of setting up a Centre of Excellence to oversee the implementation of Artificial Intelligence in Indian Judiciary. Firstly, there should be a fair representation of all the classes and sections in the data. Secondly, protection of sensitive variables in algorithm with supplementary algorithm are necessary. Thirdly, there should be diversity in implementation agency that build artificial intelligence model for India. Thirdly, authenticity of training data, but also the authenticity of Artificial Intelligence predictions is important.

DATA SECURITY AND DATA PRIVACY

The question arises what would be about data security and data privacy. The data storage mechanism proposed here to take into account data security as a key factor a distributed with an end to end encryption of sensitive data makes sure data secure yet available for Artificial Intelligence algorithms. The distributed node-based architecture will only let authorized personnel to access data along with an access time stamp and identity stamp.

In the cases of data privacy, as we all know that court case is a public record. In R.*Rajagopal vs State of Tamil Nadu*[xvii], where the Supreme Court defined the scope of right to privacy and held that publication of court records will not constitute any violation of the right to privacy. It held, *"The rule aforesaid the exception, that any publication concerning the aforesaid aspects becomes unobjectionable if such publication is based upon public records including court records. This is for the reason that once a matter become a matter of public record, the right to privacy no longer subsists and it becomes a legitimate subject for comment by press and media among others. We are, however, of the opinion that in the interest of decency Article 19(2) an exception must be carved out to this rule, viz, a female who is the victim of sexual assault, kidnap abduction or a like offence should not further be subjected to the integrity of a name and incident being published in press on media".*

PUBLIC IMPACT OF ARTIFICIAL INTELLIGENCE IN JUDICIARY

There will be different impacts for different individuals for Artificial Intelligence in the system of Judiciary. For example, for an individual, if the right message is conveyed common man will be benefited as the justice system becomes transparent. Transparency about data collection, storage, processing is key to gain the trust of an individual. For judiciary, judge's workload will be reduced. Judiciary can attract young and bright minds. It is important to keep all the levels of judiciary in confidence and well informed as Artificial Intelligence might be perceived as a threat to human jobs. Artificial Intelligence is just assisting Judges arrive at decision faster. For the government, an effective enforcement of contracts and protection of private property will boost India's ease of doing business and does help in influx of investments. Enforcement cost might increase in the short run but in the long run, benefits will outweigh this. For society, there will be reduction in legal fee as there is more transparency in the system which brings down the transaction cost. Push back may happen from the society with respect to data collection and algorithms which make predictions. Therefore, it is essential to keep the common man informed throughout and the extent of AI usage is communicated to the parties.

CONCLUSION

In the context of human, 2 out of 3 prison inmates in India right now are under trial and though they are not convicted. Artificial Intelligence powered courts will make sure no innocent person languishes in prisons anymore. Further, for shared purpose, getting rid of pending cases is in the interest of everyone. The Judiciary doesn't have to over work. Society will have a transparent and swift judicial system. For India as a brand, it stands 164/189 countries in terms of enforcing contract which significantly reduces India's aspirations to be a global superpower. A strong, transparent and swift judiciary will catapult India's human resource and image in the global arena which means potential to attract more investments as ease of doing business will improve and economy will thrive.

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