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JUSTICE OF FUTURE: ARTIFICIAL INTELLIGENCE AND JUDICIARY

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ABSTRACT

We, humans consider ourselves as the most intelligent creature living on this planet. But the growing technology proved that there are manmade machines which are more intelligent than us. They are more powerful and work efficiently than that of human beings. Along with the arrival of new technologies, world is changing day by day, and it makes changes in every fields like industrial, educational, agricultural, etc. This influence of technology reflects also in the judicial system.

Artificial Intelligent is a branch of computer science which deals with creation of smart machines capable to perform tasks that requires human intelligence. Artificial Intelligent is not a new term, but application of AI is expanding. This article will be about Artificial Intelligence and what AI can do for courts. Here AI is introducing as a solution to the challenges of legal system. The Article discusses about its possible ways, how AI can be use in different ways.

INTRODUCTION

Artificial Intelligent is the science which prepares machines to mimic the behavior of human beings. The term Artificial Intelligent was first introduced in the year 1956 by John McCarthy at first ever AI Conference at Dartmuth College. [2] He defined AI as "the science and engineering of making intelligent machines, especially intelligent computer programs. It related to the similar task of using computer to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable."

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[2] J.McCarthy 's "A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence (31 August 1955)",in Jerry Kaplan(red.) Artificial Intelligence: What Everyone Needs to Know, Oxford: Oxford University Press 2016

AI is evolving to benefit many different Industries. By using Artificial Intelligence, machines perform functions such as leaning, planning, reasoning and problem solving. Algorithms play a very important part in Structuring AI, using techniques such as machine learning, deep learning and rules. Machine learning algorithms feed computer data to AI system, using statistical techniques to enable AI to learn. Through machine learning, AI system gets better and better to do tasks without having programs to do so, where simple algorithms are used in simple applications, while more complex ones help frame strong Artificial Intelligence. Now AI has been widely used in lot of sectors like healthcare and medicine, Education, Industrial, Marketing, self driving cars and more. It is clear that the adoption of AI and ML is moving fast and it will clearly automate many tasks that were earlier executed manually. Artificial intelligence is the simulation of human Intelligence by machines.

TYPES OF AI

There are 3 types of Artificial Intelligence that is

- Artificial Narrow Intelligence (ANI)
- Artificial General Intelligence (AGI)
- Artificial Super Intelligence (ASI).

Artificial Narrow Intelligence (ANI):- It is also known as Narrow or weak Artificial Intelligent and it is designed to perform a specific task with Intelligence. As the name indicates weak AI its application is limited, it cannot perform beyond its limitations.

Artificial General Intelligence (AGI):- It is also known as Strong Artificial Intelligent. This system can perform nearly every task as efficiently as humans can do and the main characteristic of General AI is to think like a human on its own.

Artificial Super Intelligence (ASI):- In Super AI system machines can surpass human Intelligence and can perform any task better than humans. The concept of Artificial Super intelligence sees AI evolve to be so akin to human emotions and experiences, that it doesn't just understand them, it evokes emotions, needs, beliefs and desires of its own. The main features of Strong AI would be the ability to think, reason, solve puzzles, make judgements and

communicate on its own. Presently ASI is a hypothetical situation as depicted in Science fiction books or movies where machines will rule the world. However the tech masterminds like Elon Mask believes that ASI takeover the world 2040.

AI is useful in many different ways to meet judicial requirements. The area in judiciary that can handle by AI is abundant. AI can focus on performing judicial requirements like:

- Reasoning
- Organizing information
- Legal aptitude
- Decision making
- Linguistic intelligence
- Problem solving
- Legal research
- Predicating outcomes
- Studying and examining the documents, etc.

Other countries are already experimenting with a wide variety of AI in the field of law. There are also more advance AI tools to predict the potential outcomes of an actual case. Such tools, could remarkably improve access to justice.

CHALLANGES TO INDIAN JUDICIARY

In India the biggest problem faced by judiciary is the alarming rise in legal disputes. On accessing the [3]National Judicial Data Grid (NJDG), a government platform for analyzing and monitoring judicial statistics, the information available is that 5.75million cases are pending in High Courts (HCs) across India, and 38.15million cases pending in the District Courts (DCs). The total is a staggering 43.90million. The data shows that over the last 15years, there has been an increase of about 14.2million cases pending in high courts and district courts, an increase of almost one million per year. In Supreme Court, the pendency of case rose 10.35 percent from

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[3] http://njdg.ecourts.gov.in

March 1, 2020 to March 1, 2021 due to the COVID-19 pandemic. The NJDG said that the pendency of cases in India is beyond control.

[4]Union Law Minister Ravi Shanker addressed the statistics of backlog of cases in Rajasabha and said that, pendency of cases in courts depends on several facts like non availability of sufficient number of judges, supporting court staff, physical infrastructure. He observed that complexity of facts of the cases, nature of evidence, cooperation of stake holders such as bar, witnesses; investigation agencies and litigation also determine the time taken to decide the cases.

The NITI Aayog, in the year 2018 Strategy paper, clearly mentioned that the current rate of disposal of cases in our courts, it will take more than 324 years to clear the backlog. So the backlog of cases is a challenge to Indian Judiciary.

AI AND INDIAN JUDICIARY

The Supreme Court Chief Justice S A Bobde, observed that "pendency of cases has gone out of the control", saying it will introduce guidelines or the appointment of temporary judges to address the backlog and as another solution to solve backlog of cases, the government introduced various Alternative Dispute Resolution (ADR) mechanisms. They are beneficial to an extent but the results are not satisfactory. The list of pending cases wouldn't end there, it needs a new strategy.

On April 6, 2021, the Supreme Court of India launched the first AI driven research portal, Supreme Court Portal for Assistance in Court's Efficiency (SUPACE). It is launched by Hon'ble Justice SA Bobde and he was the first Chairman of Supreme Court's AI committee. Currently Justice L. Nagaswarea Rao is the Chairman of Supreme Court's AI committee. SUPACE is a Supreme Court Portal deals the data received in the filing of cases. It deals only with processing of information and makes it available to Judges to take a decision other than that it will not take any role in decision making part. Initially as an experiment basis it is available only to the Judges of Delhi and Bombay High Courts dealing with criminal cases.

In 2020, Supreme Court developed software called SCI-Interact to make its 17 benches paperless. LIMBS, E-Court etc are other initiatives. Earlier Supreme Court introduced a

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[4] http://m.econoictime.com/news/politics-and-nation/articleshow/69974916.cms

dedicated open source judicial domain language using Neutral Machine Translation (NMT) tool called Supreme Court Vidhik Anuvaad Software (SUVAS), which can translate judgments, orders in English to nine vernacular languages: Marathi, Hindi, Kannada, Tamil, Telugu, Punjabi, Gujarati, Malayalam and Bengali and vice versa.

FUTURE OF JUDICIARY

Due to the COVID-19 pandemic it has led to a huge increase in the number of pending cases and it s difficult to control even by the developed countries. So the world is changing towards the use of Artificial Intelligent in the field of judiciary. Courts are changing to "smart courts". The "smart court" includes non-human judges powered by Artificial Intelligent. It will help to ease the workload of humans and improve the speed and effectiveness of the legal process. AI doesn't get tired. We can use emerging technologies like Block-chain, it is one of best the digital technologies used in court system. [5]Block-chain is the name used for official list of transactions carried out between users belonging to the same group of computers. Block-chain is a system of recording information in a way that makes and this technology permits transactions records to be checked and stored safely. It is difficult or impossible to change, hack or cheat the system. A Block-chain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network on the chain. It is a type of Distributed Ledger Technology (DLT) in which transactions are recorded with an immutable cryptographic signature called a hash.

The properties of DLT are:

- Programmable: A Block-chain is a programmable one (Smart Contract).
- Distributed: All network participants will have a copy of ledger for complete transparency.
- Immutable: Any validated records are irreversible and cannot be changed
- Time stamped: A transaction timestamp is recorded on a block.
- Unanimous: All network participants agree to the validity of each of the records.
- Anonymous: The identity of participants is either anonymous or pseudo animus.

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[5] http://www.investopedia.com/terms/b/blockchain.asp

- Secure: All records are individually encrypted.

Now a day's Block-chain technologies are widely used to secure data. When Block-chain meets AI it will be impossible to hack or tamper the data once its saved and it will be very helpful to the judiciary not to get hacked. So the work of Artificial Intelligence in the legal domain can give judges extraordinary resources.

CONCLUSION

Working of courts in India is on a complex procedure and results in burden on the legal system. Uncontrollable number of pending cases is the one of the main challenges faced by Indian Judiciary.

Artificial Intelligence can bring reforms in the legal system. It can perform a wide range of functions for Judges and Courts, and there by benefit for parties to a case and individual seeking for justice. Application of AI has already proven to be useful in practice and many countries.

The importance of machines can be seen in all sectors. Machines make life simpler. This should reflect also in the judicial system. In future it is sure that AI will be an incredible part of Individual Judicial System. The Supreme Court Chief Justice S A Bobde, in the celebration of Constitutional day, 2019 conducted by Supreme Court Bar Association said that "We propose to introduce, if possible, a system of AI. There are many things which we need to look at before we introduce ourselves. We do not want to give the impression that this is ever going to substitute judges." The judges don't accept the vast ability of AI system, which is already proven. Judges consider AI as a treat to their career. They consider concept of replacing judges by 'nonhuman judges' as a challenge to their existence.

Implementing AI in full extent is a challenging task to Indian Judiciary, but if it is implemented in proper way, it will be a milestone in the Judicial System.