JUDICIARY IN TECHNOLOGICAL PARADIGM: AN OVERVIEW

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ABSTRACT

The technology continues to change the way of living of mankind. The impact area of technology includes the workplace as well wherein human functions. There are predictions that many aspects of human activity will be totally replaced or dependent upon newer technologies. Whilst many human activities have changed over time as a result of human advancement, however some human functions remained relatively undisturbed. Now technological changes are likely to have a broader impact on such areas. In this regard, technology has started changing the practice of law and is likely to reshape the process of judging by replacing, supporting or supplementing the judicial role. Such changes may limit the human engagement in judging with the increasing emphasis on Artificial Intelligence to deal with smaller civil disputes and also the more routine use of related technologies in more complex disputes. The use of technology may prove be a boon in future to the Indian Judiciary which is facing a problem of huge backlog of cases at all levels of Courts affecting the administration of Justice.

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INTRODUCTION

The prospect of creating intelligent computers has fascinated people. The world is rapidly moving towards complete automation of services. Today medical diagnosis, customer service, complete automation of services (granting of driving license), Voice-enabled smart assistants, protection of cyber space, autonomous vehicles etc. have proven that technology based intelligence can replace human at several places and it has also increased investment in such Artificial Intelligence technologies by IT giant companies like Google, Uber, Amazon and Apple etc. Several other factors like rise of the digital economy, progress in cloud computing resources and consumer demand to access application based services such as speech recognition and navigation support have stimulated Artificial Intelligence research in leaps and bound. Artificial Intelligence Applications dominate our lives today like anything. The question that baffles is about defining Artificial Intelligence. Even the term intelligence itself is difficult to define[1]. Oxford dictionary defines Artificial Intelligence as a computer system, able to perform tasks which normally require human intelligence. In layman terms, Artificial Intelligence is a mechanism in which machines behaves and acts like human or other animals. Artificial Intelligence can also be seen as a field of science in which technology compute in the same way as people use their nervous systems to sense, learn, reason, and take action. The exact definition and meaning of the word intelligence and more precisely of Artificial Intelligence is subject of discussion. The Artificial Intelligence brings together different fields of computer like vision, speech processing, natural language understanding, reasoning, knowledge representation, learning, and robotics with the intent of achieving an outcome by the machine. It is the field that studies the synthesis and analysis of computational agents that act intelligently.

CONCEPT OF ARTIFICIAL INTELLIGENCE

AI is a constellation of technologies that enable machines to act with higher levels of intelligence. AI technology follows and adheres the potential of human sense or understanding and acts accordingly. It can actively perceive the world around them by acquiring and processing images, sound and speech. The language processing system can analyse and understand the information collected in it. An AI system can also take action through technologies. These human capabilities are augmented by the ability to learn from experience

[1] Joost N. Kok et al: Artificial Intelligence: Definition, Trends, Techniques and Cases, Available on: http://www.eolss.net/Sample-Chapters/C15/E6-44.pdf. Assessed on 21.12.2021.

and keep adapting over time[2].

Any intelligent entity has five attributes i.e. (1) Communication, (2) Internal knowledge, (3) External knowledge, (4) Goal-driven behaviour and (5) Creativity. Artificial Intelligence technology includes Machine Learning, Cognitive Computing, Deep Learning, Predictive application programming interfaces, Natural Language Processing, Image Recognition, Speech Recognition etc. Highly technical, specialized skill and expert system is required in the applications of Artificial Intelligence. Artificial Intelligence includes programming of computers for certain character such as: Knowledge, Reasoning, problem solving, Perception, Learning, Planning, and Ability to move objects. Knowledge engineering and Machine learning are core part of Artificial Intelligence research. Accuracy is the key for a machine to act and react like human. Knowledge engineering is a tedious task because it requires inserting reasoning, power to solve problem and common sense in a machine in order to access properties, categories, objects and their relations. Machine learning and learning requires ample supervision with numerical regressions and classification. Machine perception is capable to use sensory inputs to interpret the different aspects of the world, while computer vision is the power to analyze visual inputs with a few sub-problems such as facial, object and gesture recognition. Robotics is a major field related to Artificial Intelligence. It requires intelligence to handle tasks such as object manipulation and navigation, along with sub-problems of localization, motion planning and mapping[3]. The main objective of Artificial Intelligence is to facilitate innovation, minimize human labour and to expand the human potential to the maximum. Now Artificial Intelligence system is more skilled and can perform any task with more accuracy. The success of robotics and Artificial Intelligence generated work has proved that the computers can do the work independently by learning to do the tasks once the data have been inserted into it.

DIMENSIONS OF ARTIFFICIAL INTELLIGENCE

A lot of research is being carried out to explore and implement Artificial Intelligence for use in the public sector, including e--government, anticorruption efforts and similar activities. With the growth of Artificial Intelligence services economy shall be benefited enormously. It may solve complex global challenges like climate change and resource utilization to the impact of

[2] Niti Ayog: National Strategy for Artificial Intelligence# AIFORALL, Discussion Paper, June, 2018. Available on: https://indiaai.gov.in/documents/pdf/NationalStrategy-for-AI-Discussion-Paper.pdf Assessed on 22.12.2021.
[3] Pallavi Gupta: Artificial Intelligence: Legal Challenge in India this publication Vol. 3, Issue- 1, Addendum 9 (Special Issue). Available on: https://www.researchgate.net/publication/335967041 . Assessed on 21.12.2021.

population growth by improved decision making with data-driven strategies. It has potential to transform people's lives by introducing new information and digital personal assistants. The use of Artificial Intelligence technology can be seen in education, Agriculture and other non conventional areas. Use of Robots in manufacturing and service sector has increased significantly and demonstrably. It may reduce production cost also. Robots are providing assistance to disabled people and are engaged in dangerous works to avoid human life risk. Various research projects are working on Artificial Intelligence application in automobile sector for Autonomous vehicles (AV) to reduce road accidents, traffic congestion, fuel consumption & emissions and to improve road safety, mobility, free up commuting time for other tasks. Drones are growing trend.

SCOPE OF ARTIFICIAL INTELLIGENCE IN LEGAL FIELD

The Artificial Intelligence has made its presence felt in legal profession too. It has enormous possibility in this profession. Companies are trying to develop such technologies by which better, speedy and accuracy can be brought in legal profession. Such advancement in the legal profession will bring transformation in the legal framework. Legal research is one of the most important aspects of law profession and due to technology it has undergone a drastic change. It has seen the technological interference in abundance. From journals and reporters to CD-ROMS and Online software, legal technological innovation has changed the way of imparting legal services. Artificial Intelligence software helps to find relevant case laws and applicable statutes with more accuracy and in lesser time. Drafting and documentation is now done with the help of software. Now question is whether robot can replace lawyer in the court? Theoretically it is possible but practically robots cannot replace a lawyer's role in court. Robots can however create and draft documents. Therefore, in nutshell the role of a lawyer would reduce to only appearing and arguing a case before judges in the court of law.

ARTIFICIAL INTELLIGENCE AND JUDICIAL IMPLECATIONS

In justice delivery system, judiciary has to play an important role to find out the truthiness of facts presented before the court in a particular matter. It is true that whatever facts are produced before, they are either true or false or it may also be half true. There is another possibility that facts may be a combination of all of these. To do the proper justice with the party, the court has to find out that whatever facts have been produced before the court, what amount of them is correct, true and believable. Thus the skill to uphold the justice is nothing but to make a

correct decision about the truthfulness of the facts. There is another problem with the judiciary that our judiciary focuses upon to find out the judicial truth. Basically, the judicial truth may be different from real truth. It is said that truth supported by evidence is judicial truth but the truth which is not supported by evidence is real truth which has not been proved in court. The presumption as to the truthfulness of a fact increases with the degree of evidence supporting it. Negative evidence leads to a negative presumption of truthfulness. Judicial decisions are uncertain because it largely depends on the evidence produced before the Court. The society grows with more and more complexities[4]. The existing legal mechanism for reduction of complexity in judicial decision-making fails to understand the real truth which may be very useful for the cause of justice. This is one of the greatest legal paradoxes of our system. One of the foremost concerns surrounding Artificial Intelligence is the protection of data. Technology of Artificial Intelligence is based on the data which is being fed into its system. Secondly, in the absence of the direct application of human mind behind any action that an Artificial Intelligence system undertakes, who is to be blamed for the loss or error? It is also criticized that complete dependency on Artificial Intelligence system may be risky to human being. Threats of complete automation for human being may foresee as follows.

Artificial Intelligence is wholly based on data generated and gathered from various sources. A biased data may lead to a biased decision by the system. In the global world, Artificial Intelligence is yet to have regulated properly and it should be legally understood[5]. In keeping with this objective, the government is set to support startups and centres of excellence with respect to Artificial Intelligence training and research activities. Whether a robot should be permitted to drive a car? If it commits a crime what punishment would be awarded? Do we have proper legal system to handle these legal issues?

Technique of Artificial Intelligence may also be used to create music and paintings etc. It will raise a question of applicability of intellectual property law. What shall be status of Artificial Intelligence under IPR Laws is also not clear. The essence of legal personhood lies in whether such entity has the right to own property and the capacity to sue and be sued. In our legal

[4] Beverly Blair Cook, Fuzzy Logic and Judicial Decision Making, 85 JUDICATURE (2001) as quoted by Jewel Chanda: A Scientific Judicial Perspective can solve many hurdles of practical application of AI 'expert system' for judicial decision making, Nirma University Law Journal, Volume- 8, Issue-2, July-2019.

[5] Niti Aayog: Responsible AI # AIFORALL: Approach Document for India, Part-1 Principle for Responsible AI, February 2021. Available on: https://www.niti.gov.in/sites/default/files/2021-02/Responsible-AI-22022021.pdf . and Responsible AI # AIFORALL: Approach Document for India: Part-II, Operationalzing Principles for Responsible AI, August, 2021. Available on: https://www.niti.gov.in/sites/default/files/2021-08/Part2-Responsible-AI-12082021.pdf. Assessed on: 22.12.2021.

system personhood has been granted to non-human entities such as companies, corporate houses, and other legal persons. But till date copyright has been granted only to natural or legal persons and any machine or tool used for creating any original work is only considered as a mere tool and thus have not been granted any copyright. It is debated that the IPR law has to be amended to include work of Artificial Intelligence. Another concern is the ability of an Artificial Intelligence to execute and be bound by contracts. Under Indian law only a legal person can be competent to enter a valid contract. An Artificial Intelligence may not qualify to enter in legal contract. Therefore, a contract entered into by an Artificial Intelligence of its own wish may not be regarded as a valid contract. The use of Artificial Intelligence may replace of the human workforce. It is creating a gap between the existing employment laws and the growing use of Artificial Intelligence. For example, can an Artificial Intelligence claim benefits of provident funds and gratuity or sue a company for wrongful termination of employment? Can Artificial Intelligence be given Legal Rights and Duties? Can Artificial Intelligence be given legal personality? Can Artificial Intelligence have locus standi? The question of whether legal personhood can be conferred on an Artificial However, there is distinction between personhood of corporate and Artificial Intelligence. Corporate are accountable via their stakeholders, while an Artificial Intelligence may be actually independent. Further, there is no law in force to recognize Artificial Intelligence as a legal person.

FIXING OF LIABILITY IN ARTIFICIAL INTELLIGENCE ISSUES

Can Artificial Intelligence be held liable for civil, criminal or tortuous acts? What would be the nature of liability? It should be civil, criminal or both? A main legal difficulty that arises upon realization of Artificial Intelligence is the question of apportionment of liability. Whether party should be liable under the principle of strict liability with certain exceptions[6] or the principle of absolute liability without any exception[7]? Another question that arises is attributing of liability. The general rule is that since an Artificial Intelligence cannot meet the criteria as a legal person, it cannot be held liable in its own capacity. The biggest obstruction to consider this rule is the problem as to how to penalize an Artificial Intelligence. Who would be liable, it may be the technology developer, the retailer, or consumer of technology? Further, the parties would be liable jointly, contributory or severally is also not clear.

[6] Rylands v Fletcher (1868) LR 3 HL 330, [1868] UKHL 1, LR 3 HL 330.
URL: http://www.bailii.org/uk/cases/UKHL/1868/1.html. Assessed on: 22.12.2021.
[7] M.C. Mehta and Anr V. Union Of India & Ors, 1987 AIR 1086, 1987 SCR (1) 819.
Available on: https://indiankanoon.org/doc/1486949/ . Assessed on: 22.12.2021.

CONCLUSION & SUGGESTIONS

Artificial Intelligence is the capability of a machine to imitate intelligent human behavior. Therefore its application poses several challenges to legal system. To integrate Artificial Intelligence with legal system, a balanced approach is required by regulating the functioning of Artificial Intelligence systems. Artificial Intelligence technology in India is in its premier stage. It however has a lot of opportunities for private players to participate and earn profit. Participants should demark their roles, responsibilities, liabilities and obligations with clarity in absence of any legal framework. Effective information technology law fixing the penal liability of the culprit should be enacted while ensuring the proper identity of the accused. The Information Technology Act, 2000 is the only legislation which 'touches' upon this subject. Although definite safeguards pertaining to data protection and privacy have been laid down in Sections 43A and 72 of the Act, yet they fall short of ensuring actual protection. Comprehensive data protection legislation in India is the need of the hour in the lines of UK Data Protection Act (1998), European Directive on Data Protection; Trans border Flows of Personal Data 1980, OECD Guidelines on the Protection of Privacy and Safe Harbour principles of the US. Apart from it, there should be safeguards in the form of prior intimation to individual users about extraction of information i.e. the source of information. Although future belong to technology yet laws and literary framework should be upgraded simultaneously with same pace. No country has enacted comprehensive legislation to regulate the use of Artificial Intelligence so far. India may be pioneer in this area. Two layered protection model in enactment should be considered one for technological regulators; and second to control Artificial Intelligence actions as well as for accountability of errors keeping in mind that Artificial Intelligence is growing in leaps and bound. None knows advantages and/or disadvantages associated with Artificial Intelligence. In the absence of any regulatory framework the stakeholders should play cautious to protect themselves from unforeseen consequences and liabilities that may arise in the course of use of Artificial Intelligence technology.