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Artificial Intelligence: Legal Challenge in India

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ABSTRACT:

Can a machine think sense or feel like a human being??? Today digital revolutions transform views of human being about values, behaviour and priorities. Artificial intelligence or machine learning or deep learning is that technology which gradually permeates every aspect of our society, from the vital to the regular life. AI is a science and a set of computational technologies that are inspired by the ways people use their nervous systems to sense, learn, reason, and take action. Various sectors are benefited from these new technologies but on the other side apprehension is, these new technology may be misused or performed in unforeseen and potentially harmful ways. In this scenario it has become a fundamental concern that every requisite innovation is socially preferably and justifiable. Today issue on the role of the law in governing AI systems is more relevant. How the law will struggle to keep up the ways in which courts, policymakers and companies are stepping in to confront the unique legal and policy questions presented by the widespread adoption of AI. In this paper the researcher try to present in-depth analyses of the, legal- challenges posed for AI systems.

Keywords: Artificial Intelligence, AI Opportunities, Legal challenges

Access this Article Online	Quick Response Code: 
Website: http://heb-nic.in/cass-studies	
Received on 23/05/2019	
Accepted on 29/05/2019 © HEB All rights reserved	

INTRODUCTION

Technologies are innovated to make routine life easy and smooth. The world of technology is changing rapidly with computers, machines and robots, replacing simple human activities. Artificial intelligence (AI) is one of such innovation. Fundamentally, AI is a machine that can actually think on its own. AI can be understood as the capability of a machine to reproduce intelligent behaviour. In broader sense, AI refer a biologically inspired information systems and include manifold technologies like machine learning, deep learning, computer vision, natural language processing, machine reasoning and strong AI. However AI relates to the similar task of using computers to understand human intelligence, but it does not confine itself to methods that are biologically observable. In general understanding “Artificial intelligence, a branch of computer science, is the recreation of human intelligence processes by machines specially computer system, aims to create intelligent machines which can often act and react like humans and makes possible for computers to perform tasks involving human-like decision making, intelligence, learned skills or expertise.

Understanding of AI

An intelligent entity has five attributes i.e.(1) Communication, (2) Internal knowledge, (3) External knowledge, (4) Goal-driven behaviour and (5) Creativity. AI technology includes Machine Learning (ML), Cognitive Computing, Deep Learning, Predictive application programming interfaces (APIs), Natural Language Processing (NLP), Image Recognition, Speech Recognition etc. Highly technical, specialised skill and expert system is required in the process of Particular applications of artificial intelligence. AI 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 AI research. For a machine to act and react like human, it is necessary machine must be possessed with accurate information of the world. To implement knowledge engineering AI is essentially to access properties, categories, objects and their relations. It is a tedious task to insert reasoning, power to solve problem and common sense in a machine. 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.

Science fiction has been stimulating the interest of people for a very long time with the concept of Artificial Intelligence into reality first time with computers and now with robots and machines. This stimulation can be seen when a robot named Sophia was given the citizenship of the country by Saudi Arab. Robotics is a major field related to AI. It requires intelligence to handle tasks such as object manipulation and navigation, along with sub-problems of localization, motion planning and mapping.

Origin of AI

It is said, Artificial Intelligence is not a new idea to the person who examines science creative writing. To understand AI and its nexus with our understanding of intelligence, one has to look into the development of the concept of AI. The term was first coined, when people began trying to understand whether machines can truly think. In the 1940s McCulloch and Walter Pitts had first made an attempt to understand intelligence in mathematical terms. John McCarthy had used term “Artificial Intelligence” in Dartmouth Conference at the Massachusetts Institute of Technology. He defined AI as science and engineering of making intelligent machines, especially intelligent computer programs. According to him “every solid definition of intelligence relates it to human intelligence....” Alan Turing proposed a test in 1950 to prove a machine “as intelligent”. He proposed that a machine has to pass the Turing test to prove the computer is intelligent. The Turing test engaged a human being, as the ‘judge’, to ask questions via a computer terminal to two other entities, one of which will be human being and the other will be computer. If the judge (human being) regularly failed to appropriately differentiate the computer from the human, then the computer was said to have passed the test. Marvin Minsky defined AI, (in 1968), as a science of making machines to do things that would require intelligence if done by men. In 1993, Luger and Stubblefield have given modern definition of AI as the branch of computer science that is concerned with the automation of intelligent behaviour. AI was defined by Stuart Russell and Peter Norvig as designing and building of intelligent agents that receive percepts from the environment and take actions that affect that environment. This definition of AI brings together different subfields of computer vision, speech processing, natural language understanding, reasoning, knowledge representation, learning, and robotics, with the intend of achieving an outcome by the machine. David Poole and Alan Mackworth defined AI as the field that studies the synthesis and analysis of computational agents that act intelligently. Marcus Hutter (ANU) and Shane Legg (Google Deep Mind) proposed the “human-independent” definitions of AI as Intelligence measures an agent’s ability to achieve goals in a wide range of environments. Oxford dictionary has defined artificial intelligence as a computer system, able to perform tasks which normally require human intelligence. In layman terms, artificial intelligence is technology that behaves and acts like human or other animals. In popular terms AI is a science and a set of computational technologies that are inspired by the ways people use their nervous systems to sense, learn, reason, and take action.

Evaluation of AI

Artificial intelligence has been a fascinating topic for everyone around the world. The main goal of AI is to facilitate innovation, minimize human labour and to expand the human potential to the maximum extent possible. Now the AI system has become more skilled and can perform the task with more accuracy. The success of robotics and AI generated work has proved that the computers can do the work independently by learning to do the tasks once the codes have been entered. AI has started now creating music, news reports and paintings. In the global technological wave of Artificial Intelligence

(AI) the world is moving towards complete automation of services. Several factors have stimulated AI research 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. Now AI applications are prevalent in our lives today like medical diagnosis, Customer service, complete automation of services (granting of driving license), Voice-enabled smart assistants, protection of cyber space, autonomous vehicles etc. which increased investment in artificial intelligence technologies by companies like Google, Uber, Amazon and Apple. Google has recently bought artificial intelligence(Startup DeepMind), made a machine learning system(Tensor Flow) and have designed a system which studies the interaction of people with AI system.

Type of AI Applications

Existing AI applications are forms of “*narrow*” AI or “*artificial specialized intelligence*” (ASI), aims to solve specific problems or take actions within a limited set of parameters. When we communicate with a device to book film tickets or pay a gas bill or listen to GPS directions etc., we employ “*weak*” or “*narrow*” AI. Most recognizable products i.e. Apple’s Siri⁸ and Google’s self-drive cars are using “*weak*” AI. It appears intelligent, but it still has defined functions. It has no self-awareness. When a person used a credit card an AI algorithm approves the transaction, use the GPS in a car, we use an AI algorithm. Using Google translate service, is part of AI and is based on statistical machine learning. The face recognition capability of our cameras is AI. AI can enable a machine to mimic "cognitive" functions that humans associate with other human minds, such as "learning" and "problem solving." AI which is used in mainstream technologies such as web search, smart phone applications is based on deep learning. Tasks such as trading stocks, flying military planes and keeping a car within its lane on the highway are now all within the *domain of ASI (artificial specialized intelligence)*.

OPPORTUNITIES OF AI IN VARIOUS SECTORS

Many projects are taken to explore and implement AI for use in the public sector, including e-government, anticorruption efforts, and similar activities. It is predictable that the markets for AI services are growing and broader economy shall be benefited enormously with potential AI services. AI technology may provide help to solve complex global challenges like climate change and resource utilization to the impact of population growth by improved decision making with data-driven strategies. It is realized that AI has potential to transform people’s lives for the better by introducing new information and digital personal assistants which can anticipate our needs. We can see use of AI technology in education, in Agriculture etc.

AI (Robots) in manufacturing industry and Service Sector

Use of Industrial robot has increased significantly and demonstrably in manufacturing industry. It may reduce production also. Skilled Robots are deploying in service industries service such as restaurants or hospitals. They are providing assistance to disabled people, humans to avoid laborious

or dangerous work. AI technology also has the potential to provide solutions to social challenges like caring for the aging population.

AI in Autonomous vehicles Sector

Various research projects working on AI application in automobile sector for Autonomous vehicles (AV) are advocated that it will reduce road accidents, reduce traffic congestion, reduce fuel consumption and emissions, improve road safety, improve the mobility of the elderly and disabled, and free up commuting time for other tasks. Drones (a specialized type of AV) are growing in popularity.

AI in Legal profession

The future of legal profession without AI softwares is hard to believe. Companies dealing in artificial intelligence technology have been looking out ways to develop technology for providing better, speedy and accuracy in the legal profession also. The technological advancement in the legal profession has transformed the framework. Legal research is the most important aspect of practicing lawyer and because of technology it has undergone a drastic development. From journals and reporters to CD-ROMS and Online software, legal technological innovation has changed the way how legal services were rendered. AI software helps the lawyer to find relevant case laws and applicable statutes. With this software complex legal questions can be answered in simple and basic language. Lawyers and firms are drafting and reviewing the contracts as well as the case documents with the help of software. There are different ways in which artificial intelligence technology is being currently applied in the legal profession around the globe and proving to be advantageous for the law firms and lawyers respectively. Can robot replace lawyer?? Practically, robots cannot replace a lawyer's role in court, but AI robots have the power to create and draft documents. Therefore, the clerical role of lawyers might be reduced to a large extent. Appearing and arguing a case before judges in the court might be the only role lawyer's play.

CHALLENGES

The debate is around regulating this technology in the country within the realm of municipal and international law. One of the foremost concerns surrounding AI is of data protection, because Every AI interface relies entirely 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 AI system undertakes, who is to be blamed for the loss which is likely to be sustained by innocent users? It is also criticised that complete automation or complete dependency on AI system may be risky to human being. There some dangers in completely eliminating human oversight i.e. coming to depend entirely on the decisions of AI systems when we do not fully understand how these systems are making those decisions. Threats of complete automation for human being may foreseen as follows-

What happen if biased data is feed?-With greater explorations of AI technology, the world is moving towards a goal of near-complete automation of services. AI is wholly based on data generated and gathered from various sources. Hence, a biased data set could evidently lead to a biased decision by the system.

In India do we have some scheme or policy on application of Artificial Intelligence?- In the global market, AI is yet to have a guidepost, be regulated or even be legally understood. Niti Aayog released the national programme on probabilities AI in various sector (On February 01, 2018,). In keeping with this objective, the government is set to support startups and centres of excellence with respect to AI training and research activities.

What happen if we give citizenship to a robot like Sophia (as Saudi Arabia awarded citizenship to a robot under the laws governing citizens)?- Will he/she be allowed to purchase property? Will robot be permitted to drive a car? If he/she commits a crime what punishment would be awarded? Do we have law to handle these legal issues??

Can a chatbot or chat robot (apple's siri/ amzon's aleska) be liable, if commits error with personalized data of person? -AI in the form of chatbots interacts with customers on websites. These chatbots can follow a scripted text through machine learning (ML) and increased interaction deviate from the standard questions to provide a more human-like interaction. In the course of communicating with the chatbot, if a person was to reveal sensitive personal information for any reason whatsoever, what happens to this data? In the case of an ML chatbot which does not work as per a scripted text and has collected sensitive personal information, who shall be responsible? If Rule 5(3) of IT (Reasonable Security Practices and procedures and sensitive personal data or information) Rules, 2011, is breached- The obvious answer would be the company shall be responsible because the rules state that "The body corporate or any person who on behalf of the body corporate..." collects information. However, could the company avoid liability by claiming that it was not aware that the chatbot, due to its AI ability of machine learning, had collected sensitive and personal information?

LEGAL CHALLENGES

Can under copyright law Copyright be given to the AI? – Since AI has started now creating music and paintings that, although, eventually have raised the *question of applicability of Intellectual property law (copyright)* on the works which are created by feeding the codes into it. What shall be status of Artificial Intelligence under IPR Laws as AI is Transforming Copyright Law? What happen if any software is developed by AI? The essence of legal personhood lies in whether such entity has the right to own property and the capacity to sue and be sued. As per Indian law legal personhood has not been granted exclusively to humans only, status of legal personality has granted to Non-human entities also 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 in the programs name.* Today machine learning has increased the work which can be generated through AI

application. It is debated that the IPR law has to amend to include AI generated work. The result of the gap in copyright law and A.I registration in copyright law is widespread and may result in a decrease of valuable new works.

Can AI execute the contract and be bound by its contract?

Another concern is the ability of an AI to execute and be bound by contracts. Under Indian law only a “legal person” can be competent to enter a valid contract. The general rule thus far has been that an AI may not qualify as a legal person. Hence, a contract entered into by an AI of its own wish may not be regarded as a valid contract in India.

Do we need to amend industrial or employment Laws?

The strength behind the expansion of AI is the need for automation of services, which lead to the use of AI as a replacement of the human workforce. This wave of automation is creating a gap between the existing employment laws and the growing use of AI in the workplace. For instance, *can an AI claim benefits such as provident fund payments or gratuity under existing employment legislation or sue a company for wrongful termination of employment?* Such questions have relevance for the human workforce in most case. The failure of employment laws to have clarity with regard to the above questions may have adverse impact as well.

Can Artificial Intelligence be given Legal Rights and Duties?

Can AI be given legal personality? Can AI have locustadi? The question of whether legal personhood can be conferred on an AI depends whether it can be made the subject of legal rights and duties. The legal concept created for corporates serves as a precedent for granting legal personhood to AI. However, there is distinction between corporates and AI. Corporates are fictitiously independent, yet accountable via their stakeholders, while an AI may be actually independent. At present no law in force recognizes Artificial Intelligence as a legal person.

What shall be nature of liability - What happens if autonomous car committed accidents? Who is responsible for damage to property or personal harm caused or death of a person caused due to accident autonomous car? The Autonomous vehicles also raise complex legal issues, such as liability insurance. Can AI be held liable for civil, criminal or tortuous acts?, What would be the nature of this liability – civil or criminal or both? A main legal difficulty that arises upon realization of AI is the question of *apportionment of liability*.

If we identify the responsible party for damage due to AI application, another issue is whether party be liable under the ‘principle of strict liability with certain exceptions’ (Reyland Flecher case- 1879), or the ‘principle of absolute liability 1982 without any exception’ (MC Mehta Case-) be applicable.

What shall be attribute of AI?- Another question that arises is attributing of liability to an AI. The general rule is that since an AI 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 penalise an AI for its wrongdoing or who would be held liable -would it be the technology developer, the retailer, or the end -consumer? Further, would the parties be liable on a joint, contributory and several basis or otherwise? For instance, in the context of a mishap concerning autonomous vehicles, would the liability rest on the AI

developer, the car manufacturer, or the driver? What principle should be applied to determine and accord liability?

CONCLUSION & SUGGESTIONS

Our inability to answer the challenges arises due to application of AI force us to understand the weakness of our legal system to deal with AI. Since AI is the capability of a machine to imitate intelligent human behavior. To safeguard the integration of AI, a balanced approach would need to be adopted which efficiently regulates the functioning of AI systems but also maximizes its benefits.

Effective and strong Contract drafting- In India however AI technology is in its emerging stages but there are plenty of opportunities for private industries to participate and profit from its development. In the absence of regularity framework, Contracts between the AI user and the AI developer are vital in determining the liability of parties. It is imperative that participants outline their respective roles, responsibilities and obligations in the contract. During the negotiation of a contract, the parties should clearly identify the scope of services being offered, the warranties relating to the AI technology, scope of liability (including limitations and exclusions) at the very least.

Effective IT Law- In case of breach of Data protection framework, who is to be blamed in the absence of human intervention, because the data protection regime in India is alarmingly weak to match the pace of growth of AI. Broadly speaking, the Information Technology Act, 2000 is the only piece of legislation which ‘touches’ upon this subject. Whereas it is undeniable that certain safeguards pertaining to data protection and privacy have been laid down in Sections 43A and 72 of the Act, but the safeguards fall greatly short of ensuring actual protection because of the obscure nature of provisions, added majorly through amendments. It raises the need for comprehensive data protection legislation in India, on the lines of European Directive on Data Protection, UK Data Protection Act (1998), OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data, 1980, and the Safe Harbour principles of the US. Secondly, the government must put in place adequate safeguards in the form of prior intimation of extraction of information to individual users i.e., to the source of information.

Parallel Approach- Artificial intelligence is the future and there is no denial, but in our quest of replacing ‘human errors’ with smart technology and strong AI, we need to move slow and keep abreast with the parallel needs of upgrading the laws and literary framework in the country.

Two-layered protection model -Since 2017, more than 20 countries (including, India) have released discussion papers on AI. However, till date, no country has enacted a specific legislation to comprehensively regulate the use of AI. Therefore, to be at forefront of this revolution, the Indian legislature should take pro-active steps to fill the regulatory lacunae and provide surety in this field. AI is growing mutli-fold technology and we do not know all the advantages or danger associated with it. Therefore it is of utmost importance to have a two-layered protection model: one- technological regulators; and two- laws to control AI actions as well as for accountability of errors.

The solution is not to hold back on innovation, but we have to innovate around: how do you keep people engaged when AI can do most things better than most people. In the meanwhile, in the absence of a regulatory framework, stakeholders should strive towards implementing measures that would protect them from unforeseen consequences and liabilities that may arise in the course of use and implementation of AI technology. A mere oversight at the contracting stage could lead to significant losses.

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