LAW AND ARTIFICIAL INTELLIGENCE- A PRIMER

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Speakers: Mr. Kabir Darshan Singh Choudhary and Ms. Apurva Singh

Introduction

Mr. Aditya Vyas, Junior Editor at RGNUL Student Research Review, welcomed the audience and introduced the speakers. For the information of the attendees, he informed the audience that Mr. Kabir Darshan Singh Choudhary is a technology attorney based in New York, and has completed his B.A.LL.B. from Jindal Global Law School and his L.L.M from Stanford University. He introduced Ms. Apurva Singh as an Associate at Mishi Choudhary& Associates, a voluntary legal counsel at Software Freedom Law Center and an erstwhile LAMP Fellow. He, then, invited Mr. Choudhary to begin the address.

Mr. Choudhary started the address with an outline of what he would cover. He stated that his aim was to provide a broad and holistic overview of Artificial Intelligence (hereinafter, "AI") and to provide an understanding of the predominant technology approaches used, which were Machine Learning and Rule Logic and Knowledge Representation. He stated he would also highlight issues like speech recognition, image recognition and deep learning and, give a perspective on where AI stands today. Busting the myth that "*AI is going to take our jobs*", Mr. Choudhary explained that the current narrative of AI is dominated by the incorrect information. Machine intelligence is a myth, according to several scholars. He further went on to state that the webinar will cover how AI will affect the practice of law and why lawyers have traditionally been against technology coming into the legal profession. He mentioned some areas, such as preparing of first drafts, straightforward dispute resolution processes et al, where AI could be useful to lawyers. Lastly, he stated that the speakers will cover how AI is going to change traditional notions of law and discuss issues like privacy. He informed the attendees that the futuristic aspect of AI will not be within the scope of the webinar.

What is AI?

Mr. Choudhary then addressed the question what exactly AI is, and stated that there is no universally accepted definition of the concept. While one professor might say that it mimics human intelligence, another professor might say that it is just an extension of the industrial revolution. There is no broad consensus on what it is or what the background of term is. The term "artificial intelligence" dates back to 1956 when John McCarthy used it during a conference. Back then, he used it to mean machines that could use languages and form abstractions to solve problems which are traditionally reserved for humans.

For the purposes of the webinar, Mr. Choudhary gave a general definition of AI: AI is something which uses computer programs, sophisticated statistics and algorithms to solve problems and automate tasks which, if done by humans, would be considered intelligent. He further cautioned the attendees that the definition is not perfect because of two aspects. Firstly, human intelligence itself is a purely subjective term. Even though most people accept that human intelligence is measured on the basis of intelligence quotient ("IQ"), but there are other facets to it like emotional, musical and athletic intelligence. Secondly, AI could also be used to perform functions that humans practically might not be able to do, like predicting fraudulent transactions.

AI could perform tasks as easy as playing chess or tic-tac-toe, or as advanced as driving cars. While humans use cognitive processes, it is not necessary that HIs use the same path as humans to achieve the same outputs, and that is one reason it is considered "artificial" intelligence.

The next questions Mr. Choudhary addressed were "is AI smart" and "can AI think". He made reference to Professor Jerry Kaplan, Stanford University, who has answered both the questions in the negative. The smartness of AI is often blown out of proportion in movies, press and sometimes by the AI community itself. Furthermore, humans may think that AI can think, because that's the process humans themselves follow. However, machines do not work in that manner. Rather, AI functions by detecting patterns in data, which a programmer provides in a computer-readable form. Another important point of distinction is that AI does not match the human intelligence— for instance, an AI system playing chess cannot have an abstract discussion about John Stuart Mill.

Where are we today?

Mr. Choudhary stated that the term "artificial general intelligence", which stems from AI, is seen is movies and series. It is a futuristic concept that might exist in the next few decades. Here, Mr.

Choudhary laid stress upon the fact that AI is an extremely dynamic field. However, as already discussed, AI works only in limited context.

The next way, Mr. Choudhary opined, to discuss AI is to discuss the technology approaches used in AI: Machine Learning and Rule Logic and Knowledge Representation (also known as Narrow AI). Narrow AI, he explained, is a top to bottom approach. In this approach, a computer programmer would interact with some subject matter experts, understand and reduce the rules into a computer-readable form and store it into the computer programme. When the computer interacts with that data, it will start automating that process. An example of this is automatic tax filing, as is prevalently done in the United States by IntuIt's TurboTax. Simply put, Rule Logic and Knowledge Representation is comparable to the "if then" rule on Microsoft Excel. An important aspect of this approach is that it requires sophisticated rule making from computer programmers and inputs from subject matter experts.

Mr. Choudhary then turned to the Machine Learning approach which, he stated, is predominant in the current AI scenario. Popular examples include Google Home, Amazon Echo and driverless cars. The four principles machine learning incorporates are learning, pattern detection, big data and self-programming. Unlike a top to bottom approach, Machine Learning uses algorithms to analyse large amounts of data and infer rules on its own. An example of this is Netflix or Amazon Prime generating user specific recommendations. Yet another example can be related to the Nicaragua 404 scam, wherein large number of people received spam emails. In such a scenario, an algorithm will analyse the text of all emails one marks as "spam", detect a pattern, and automatically mark similar emails as spam. Mr. Choudhary again stressed upon the fact that AI has no cognitive processes; it simply uses correlations that humans do not. For instance, is an AI learns to mark emails with the term "free money" as spam, it does not imply that the AI has learnt the meaning of the term "free money".

Machine Learning is an approach that uses outcomes to improve predictions. The traditional form of Machine Learning uses a lot of structured data and consists not of one, but multiple technologies like Deep Learning. Deep Learning, to some extent, involves uninstructed data. A case in point is driving a driverless car in New Delhi, where driving can involve a lot of unpredictable or unconventional situations.

Mr. Choudhary then explained that AI can also be a hybrid of the two approaches discussed. One of the biggest examples is that of automated cars. He speculated that the process of making automated cars like Tesla start with Rule Logic, like a programmer feeding data of stopping at a

red light. Other variables, like average speed or nature of road, would be picked up through the process of Machine Learning.

Next, Mr. Choudhary opined that AI is not completely autonomous. Some functions would still need human intervention. For example, if there is an accident and the road is blocked, people may drive on the footpath and go. However, an autonomous vehicle will not be able to take such a decision without human intervention.

Calling AI a "beautiful invention", Mr. Choudhary spoke more on where AI stands today. However, he also added that it must be understood that AI can perform specific tasks with clear rules or definitive answers. In areas where value judgements are involved, AI might perform poorly. An illustration of this would be a situation where an AI decides that a religious event cannot take place during a pandemic without considering factors like repercussions on the religious community. To be realistic, AI is good in some contexts and not so good in others.

AI and Law

Mr. Choudhary concluded his address with an intriguing fact about AI and law: the idea of involving AI in interpreting law dates back to early the early 17th century, when a calculus expert who happened to be a lawyer thought of how to use mathematics to make law more accessible to people.

Ms. Apurva Singh then took over and briefed the attendees on the topics she would cover pertaining to AI in the legal profession. This included contracts, criminal liability, developments in India, et al. Ms. Singh commenced by addressing a common question of whether AI can completely replace lawyers. She answered in the negative, as the role of AI is to supplement functions done by humans, and not to replace them.

Ms. Singh then cited a study by LawGeex, wherein 20 lawyers were pitched against an AI software to find 5 issues in a non-disclosure agreement. Interestingly, AI scored 94% in the accuracy parameter, whereas the lawyers received an 85% score. Further, the study revealed that what AI could do in 26 seconds, and average lawyer takes 92 minutes to do. Ms. Singh also talked about ROSS Intelligence, an AI-based software that helps lawyers work faster with features like question based search, document analyser, etc. Therefore, AI could be deputed in areas including contract review, analytics, due diligence in legal research as AI could perform these tasks in lesser time and highlight errors accurately.

The current system deployed by companies like LawGeex incorporates a human element, wherein a human has to finally review the work done by AI and this involves a technology called Natural Language Processing (hereinafter, NLP). As technology advances, there is a possibility that work can be done entirely by AI. Companies like Home Depot are already deploying contracts structure by AI. Another area where AI could be used effectively is contract analytics and due diligence.

Ms. Singh then addressed a question from the attendees, asking whether jobs of paralegals and law clerks will be extinguished because of AI. While she admitted that it might lead to lesser jobs, she reiterated that the role of AI is to supplement, and not replace humans. Therefore, AI will allow lawyers to focus on strategic engagement rather than mundane aspects of work. Here, she gave an example of Microsoft, which, in an antitrust case where the documentation ran up to 25 million pages, used an AI to redact material confidential information. The Chief Justice of India had recently suggested deploying AI for similar works, including the Ayodhya judgement. However, AI has not yet been used yet in the area.

Turning next to AI and legal research, Ms. Singh stated it was unimaginable to do legal research today without databases like SCC, Manupatra and Westlaw. She stated that she hopes that in the future, NLPs would be able to work like ROSS Intelligence and help lawyers find exact cases for research. This would greatly enhance efficiency in the legal industry.

Law of Contracts and AI

Ms. Singh started this topic by illustrating a contract entered into between a consumer and Amazon or Flipkart. In this case, an electronic agent acts as an agent for the principal, the corporation. In the Unites States, the Uniform Electronic Transactions Act has been adopted by all states except New York, Illinois and Washington. This Act validates all such contracts entered into by electronic agents authorised by principals. However, India has no such legislation. Parameters included in section 11 of the Indian Contract Act, which talks about competency to enter into legal contracts, will not be fulfilled by AI.

Hence, in India, whether AI can enter into a contract remains a moot question. Experts look at this question from two ways. Firstly, the transactions by electronic agents could be limited to the cases where the electronic agent is acting on behalf of a natural person. Secondly, the law could allow electronic agents to enter into contract by or for them. However, this was not feasible as it

became difficult to hold an AI software legally liable. There is a dearth of jurisprudence in this area.

Criminal Liability of AI

Ms. Singh described the death of Elaine Herzberg in 2018, which was the first recorded incident of a pedestrian fatality involving a self-driving car. In this case, there was a human safety back up driver present in the backseat of the Uber self-driving car. However, the case was settled outside court, and therefore the opportunity of having jurisprudence on Criminal Liability of AI was missed. In such cases, ascertaining the liability is complex- will liability fall on the driver, the developer, the manufacturer or the software system. If liability indeed falls on the software system, there is no way to punish the software.

She explained that there are several questions surrounding this topic like – how to ascertain liability in such cases? Would it be the driver? The software system? Or the manufacturer? As the question of autonomy was brought up, Apurva mentioned the 'black box problem' wherein it becomes increasingly tough to determine how exactly the 'thought process' of the AI function. She also added that in some cases even directors of a company have been held liable.Here Kabir adds a point that the current Indian system does not have any answers to what entity status to give the AI, it certainly cannot be called human. Then Apurva cited some examples in the USA wherein the company, and not the directors, was held liable. She stated that a company has a different entity than AI. She also added that instead of fearing AI, lawyers can instead get it to do mundane tasks, which would instead leave lawyers with more time for actual work. Similarly, the government can use it several ways as well. She also explained how in the USA, judges have started using risk assessment reports, which are developed on the basis of different analysis. The risk assessment scores, on the basis of varied data, ranks different inmates to assess which one of them has a high scope of risk.

Artificial Intelligence - Uses and Stakeholders

The Government: Mr. Kabir pointed out that Lawyers could use it to do mundane tasks. But more importantly, how can the government use AI to its benefit? In the US, the judiciary had started to use risk assessment reports to analyze whether a person should be given a bail or not. AI had also been used for healthcare policy planning.

Businesses and Individuals: Since the GDPR is an extensive and comprehensive data protection and privacy law, it is incredibly difficult to comply with. AI could be effectively used to comply with

such laws in order to ease the task of lawyers. Such compliance services were already being offered by various websites. However, it is not clear whether or not they are reliable.

Ms. Apurva pointed out deficiencies in the services rendered by AI by referring to the picture of a skin coloured dog which was removed from Instagram by an AI bot for nudity. In such a scenario, the technology could not effectively screen it. Similarly, there had been instances where AI removed photos of breast cancer victims showing their body parts in favor of body positivity. Since the Internet caters to a diverse group of cultures and ideological beliefs, there is moral relativism as to what is and is not offensive. The AI technology is not sophisticated enough to understand these differences.

However, the technology could be effectively used to scan and remove blatantly gory pictures which if scanned by a human moderator may impact his/her mental health condition. On the other hand, human moderators were necessary is situations where AI cannot directly scan and remove hate and abusive speech. An example would be to misspell the word rape made into 'raip'.

From an Indian policy perspective, there are multiple reports including theNational Strategy for Artificial Intelligence, and the NITI Aayog AI Report 2018, and the Report of AI Task Force by Ministry of Commerce.

Indian Law: There exists a dearth in legal provisions related to the technology in India. The Personal Data Protection Bill, 2019, clause 40 provides for a regulatory sandbox provision where AI based technologies can be tested.

Mr. Kabir moved the discussion to dispute settlement and privacy issues of Artificial Intelligence Technology. AI had been remarkably successful in dispute settlement in E-commerce disputes. AI used Game theory to predict successful outcomes. He remarked that in the case of a single ecommerce company, AI had resolved 90% of disputes successfully according to the guidelines related to consumer relations.

On a judicial front, the AI had already started predicting judgments based on Machine learning from 60,000 previous judgments. However, a point of worry for AI was bias. Machine learning is based on data. If the data is biased, then predictive analysis will be biased as well. In an instance of Credit Relation system, AI was biased against a people of a particular color and community. This was a direct result of bias in the already existing data.

Mr. Kabir remarked that there are plenty of privacy issues in AI technology. He implored for the development of privacy jurisprudence on the issue.

Q & A

On the question of how AI will affect jobs in the industry, Mr. Kabir explained that lawyers would have to change according to market dynamics and therefore be more tech enabled. Despite AI's advancement, human intervention would be needed to negotiate deals and to rectify AI developed deals. AI would be supplemental to the legal profession and it was safe to say that it would not completely overhaul the job market. SCC Online has greatly eased legal research. Calculators have not reduced jobs but created jobs for accountants. A similar analogy is pertinent in case of AI.

On the question of how AI will impact climate change, Mr. Kabir referred to studies that have shown that AI had helped farmers to increase outcomes by 30%. It could effectively predict cyclones. The major downside, however, was the huge amount of power used by the technology.

Addressing the question of whether AI could be used as evidence in criminal cases, Mr. Kabir answered that currently there was a situation in the United States where the same question had been raised in a case. The outcome of the judgment is eagerly awaited by technology lawyers around the world.

On the question of whether AI can hold a patent in its name, Mr. Kabir informed that this question was raised in the United States. The answer had been in the negative. AI developed technologies could not be patented to the AI.Discussing the need for a tech-law based LLM in order to have career in AI based Law; Mr. Kabir explained that it was not necessary for working in a tech law firm. He highlighted his career reel did not include a tech-law based LLM. Essentially, it is a growing field and there is a lot of potential in AI law based career.

On the same question Mr. Mustafa Rasheed, Lawctopus' representative, remarked that foundational courses are ubiquitous. There are various aspects to AI and Law. The first one is technological aspects of law. This includes how technology and AI can benefit lawyers. Tools such as Westlaw are a fitting example. The other aspect is legal aspect of technology which essentially means jurisprudence and law on AI, policymaking, and AI based law practice. Mustafa highlighted that Lawctopus is in the process of developing a foundational course on Legal aspect of AI.

Mr. Aditya Vyas thanked the distinguished panelists highlighting the great amount of learning done in the webinar. He thanked the participants which numbered more than 300 participants at the end of the session. Mr. Vyas thanked Lawctopus for their support in successfully carrying out the webinar.