ARTIFICIAL INTELLIGENCE: THE BEGINNING OF NEW ERA

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A year spent in artificial intelligence is enough to make one believe in God." — Alan Perlis

Introduction

The artificial intelligence is one of the fields of computerscience, the artificial intelligence is nothing but a manmade machine who has the ability to perform those tasks by using their intelligence which is basically functioned by the human beings in a normal prudence or sometimes beyond the reach of the human beings. According to the computer science, the artificial intelligence is that kind of the "intelligent agents' which can observe the surrounding and take action according in that manner which provides the benefits to the human beings or the organization in which they are established. In general words artificial intelligence is defined as a software used to make computers and robots work better than humans, the systems are rule-based or neural networks, it is used to help make new products, robotics, human language understanding, and computer vision[1]. The most popular example of artificial intelligence is 'Siri' in Apple iPhone, 'Cortana' in Microsoft and 'Ok Google' of Google and 'Alexa' of Amazon they use voice queries to attempt the answer of the questions.   The most appropriate definition of artificial intelligence is given by the Prof Nils J Nilsson which is "Artificial intelligence is that activity devoted to making machines intelligent, and the intelligence is that quality that enables an entity to function appropriately and with foresight in its environment"[2].

History of Artificial intelligence

After knowing the meaning of artificial intelligence, it is very important to know its history as the famous singer Bob Marley said: *"In this great future, we can't forget the past".* The artificial intelligence is not the recent term, the first-time "artificial intelligence" word coined by the John McCarty in 1956 conference at Dartmouth College, this conference is also known as the Dartmouth Summer Research project on artificial intelligence. In this conference, many famous scientists and mathematicians take part to produce the concept of "thinking machine". The Marvin Minsky is one of the founding father of the artificial intelligence, in the year 1970 as the said that the machine would exist in 3 to 8 years' time. He is also the co-founder of the of the MIT's Artificial intelligence lab. The year of

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[1] https://thelawdictionary.org/artificial-intelligence/ [Last visited December 21, 2017]
[2] The Quest for Artificial Intelligence a History of Ideas and Achievements available at

https://ai.stanford.edu/~nilsson/QAI/qai.pdf [Last visited December 21, 2017]

1997 was the most memorable year for the artificial intelligence because in that year IBM's Deep Blue defeated the world chess champion, GaryKasparov after that people started showing their interest in the artificial intelligence.

Evolution of Artificial Intelligence in Law

The first time a paper was presented in a conference "Mechanization of thought process" in national physical laboratory Teddington, England in the year 1958 by the French jurist Lucien Mehl "Automation of legal world" in which she says that computer might be used mechanism the process of legal work[3]. In the year 1970 an article of Stanford law review named "some speculation about artificial intelligence and legal reasoning" was written by the Buchanan and Headrick, in this article, they discussed the possibilities of the legal reasoning and research only for the limited purpose which includes the advice giving, legal argument, and legal analysis[4]. But much before the Stanford article, another article was published in Yale law journal which is authored by the Layman E. Allen in which the emphasis on using the logic as the tool to improve the drafting and interpretation of legal document technique[5].

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The first international conference on artificial intelligence(ICAIL) held in the year 1987, which is held at Northeastern University, where they also established a center for computer science and law, the second ICAIL meeting 1989, this committee was formed to develop a charter for an international organization and this led to the founding of the international association for artificial intelligence in 1991 also the journal artificial intelligence and law, the journal of record for the AI and community made its debut in 1992[6]. The last and 16th conference of ICAIL held in the year 2017 in king's College, London.

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Legal Implications in Artificial Intelligence

The law is made for the humans to govern their behavior in a society, the laws are the main factor which forces the humans to think about their actions merit or demerit, but now the issue is arising that the law is made for humans, not for the artificial intelligence, what will happen when a machine done a civil or criminal wrong how will law apply to them. For example, if artificial intelligence drives a car and jumped a red light any person who will take the responsibility for the law violated by the artificial intelligence.

[3] Artificial Intelligence and the Law. Innovation in a Laggard Market by Vicky Harris? -available at http://www.austlii.edu.au/au/journals/JlLawInfo Sci/1992/21.pdf [Last visited December 22, 2017]
[4] Some Speculation about artificial intelligence and logical reasoning available at https://stacks.stanford.edu/file/druid:ms585mf75 46/ms585mf7546.pdf [Last visited December 22, 2017]

[5]http://digitalcommons.law.yale.edu/cgi/viewcon tent.cgi?article=5788&context=fss_papers [last visited December 22, 2017]
[6]http://www.iaail.org/?q=page/ai-law#fn7 [Last visited December 22, 2017]

Now we have some areas where artificial intelligence machine work, so that we get the idea of the range of legal issues, so areas following are:

- Using the artificial intelligence in medical sector for the purpose of diagnosis or for any surgery
- Using of artificial intelligence for day to day household works or any restaurants, hotels etc.
- Using artificial intelligence in car, ambulances, buses, metro, airplanes for the purpose of driverless transports.
- Using the artificial intelligence in the legal industry for legal research, due diligence, drafting contracts, agreements etc.
- Using the artificial intelligence in military forces to improve the defense system of own country.

So, these are some examples where we can see the artificial intelligence technology will be used in future. Now further this section discusses the regulatory aspects of artificial intelligence and then its legal issue in tort law, criminal law, artificial intelligence as a legal personand its freedom of speech.

Regulation of Artificial Intelligence
The very basic question arises that how will artificial intelligence will be regulate by the government, because artificial intelligence is developed in every kind of the products like in medical industry, automobiles industry etc. it is now a problem for the government that how they will ensure the public that all the products in which artificial intelligence is involved have passed the safety test in order to avoid the harm to the public. Another issue in front of the central government is that they need those people in the regulatory body who are aware of the latest technology and they can protect the interest of artificial technology as well as the public. Because of such regulation issue the artificial intelligence has given a big challenge to the policymaker.
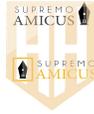
Artificial Intelligence and Tort Law
Generally, tort is a private law, it falls outside the regulatory and statutory body, tort is originated from the common law. The tort law system provides the compensation to those plaintiffs who are physically, economically, emotionally injured by the wrongful act of the defendant by providing monetary damages to the plaintiff, the person who committed the tort is known as tortfeasors.

Negligence
The liability for negligence occurs in two situations with respect to computer programs: when the software is defective and when a party is injured as a result of using the software, both the situations raise the issues for artificial programs[7].Under the tort law negligence has three basic elements to prove if these elements were proved, it shows that person is negligent, the following elements are.

- The defendant has duty of care
- The defendant breached the duty a
- The breach of duty caused injury to the plaintiff

If we apply these three elements of negligence in artificial intelligence software cases, it provides that the vendor has duty of care that he did not sell any defect artificial intelligence software to the buyer which cause him injury, but the main difficult issue is that what are the criteria for the standard of care in artificial intelligence cases because every AI software has different system and developed by the different people, so it is very big issue for the court of law to decide whether the duty of care is taken or not, artificial intelligence is software is very complex in nature so it is difficult for the judges to decide whether the software was defective or the plaintiff is unable to understand the software. [4]

On 7th may, 2017, a 40-year-old man from Florida was killed in an accident while his car Tesla was in the autopilot mode, now the Tesla automobile company CEO Elon Musk has clearly said that car's autonomous software is designed to nudge consumers to keep their hands on the wheels to make sure they're paying attention[8]. So, the issue is that who was responsible for the death of the driver because as per the company statement it shows that they had taken the duty of care.

Artificial Intelligence and Criminal Liability

Another issue under the artificial intelligence is that what if any act of wrong done by the artificial intelligence agent, so whether they can be prosecuted for the criminal liability? Before going to the criminal aspects of artificial intelligence, it should be important that how can a person or body corporation will fall under the criminal liability, so for imposing the criminal liability on any person or body corporation the two elements of criminal law must be satisfied and these following are[9]:

- Actus Reus (consist all elements of crime except state of mind)
- Mens Rea (intention to commit crime i.e. guilty mind)

It is very important that for imposing the criminal liability these two elements must be present, if one of the elements is missing then it will not be possible to impose the criminal liability.

The famous American artiste ken Goldberg once said that "we're fascinated with robots because they are reflections of ourselves" but there is something is left in that quotation is that robots are made by human and they act according to the directions of human being, so they are like innocent agent, innocent agent means a person who is complicit in a criminal offence but lacks the capacity or knowledge necessary to form the mental

7 Liability issue with Artificial Intelligence Software by Marguerite E. Gerstner http://digitalcommons.law.scu.edu/cgi/viewconte nt.cgi?article=1652&context=lawreview pg. [246] [Last visited December 23, 2017]
8 https://www.theguardian.com/technology/2016/j ul/01/tesla-driver-killed-autopilot-self-driving-car-harry-potter [Last visited December 26, 2017]

9 JOSHUA DRESSLER, CASES AND MATERIALS ON CRIMINAL LAW 126 (2007).
10 http://www.oxfordreference.com/view/10.1093 /oi/authority.20110803100004308 [Last visited December 27 ,2017]
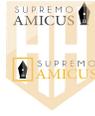
element of the offence[10]. Now the question is arising if the artificial intelligence is an innocent agent then who is real preparator of a criminal offense. There are two candidates: the first is the programmer of the artificial intelligence software, a programmer of artificial intelligence software might design a program in order to commit offences via the artificial intelligence entity and the second person is the end-user, the user did not program the software, but he uses artificial intelligence entity, including its software, for his own benfits[11].
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In year July 2015 a robot in killed a woman named Wanda Holbrook by crushing her head at the Ventra Ionia Manis plant in Michigan, her husband files the complaint against the five-robotics company for making defective robot[12]. Another case happened in Volkswagen production plant in Germany where the robot killed the 22s year-old man, but production company also refuse to release the name of the deceased, according to the production company release the statement that malfunction was due to the human error[13]. While observing the cases it seems that in future the most of the criminal cases are going to lodge against

the artificial intelligence system and to identify the real preparator are going to be very difficult because in these cases it is very difficult to prove the mensrea and actusreus of artificial intelligence developer because the act did not do by them.

Artificial Intelligence as Legal Person and its Rights

One of the debatable issues is that whether the artificial intelligence can be recognized as the legal person?

In the legal sense 'person" can be defined as the "person" shall include any company or association or body of individuals, whether incorporated or not;[14] or we can say that a legal person can sue or be sued, the legal person has bundle of rights and duties also i.e. right to speech, the right to worship etc., so if we recognize the artificial intelligence as the legal person then the artificial intelligence will also grant these bundle of rights and duties. But the issue does not end here because, if we recognize the artificial intelligence as the legal person then every individual has right to sue them for their criminal and civil wrongful act, so how will the artificial intelligence be compensated to the injured party. For example, a robot damages the property of

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[11]The Criminal Liability of Artificial Intelligence Entities- from Science Fiction to Legal SocialControl
http://ideaexchange.uakron.edu/cgi/viewcontent.cgi?article=1037&context=akronintellectualproperty [Last visited December 27, 2017]
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http://www.independent.co.uk/news/world/americas/robot-killed-woman-wanda-holbrook-car-parts-factory-michigan-ventra-ionia-mains-

federal-lawsuit-100-a7630591.html [Last Visited December 27, 2017]
13   http://time.com/3944181/robot-kills-man-volkswagen-plant/ [Last Visited December 27, 2017]
[14] Section 3(42), The General Clause Act, 1897

an individual, if the court grant the monetary compensation to the injured party, then how will a robot pay the monetary compensation to the injured person.

In October 2017 first in the world a robot named Sophia was granted the citizenship of Saudi Arabia[15], in year 2016 the European parliament legal committee has passed a report in which they raise the question about the robot's autonomy in which they discuss the nature in the light of the existing legal categories- of whether there should be regarded as natural person, legal persons, animals or objects- or whether a new category should be created, with its own specific feature and implications as regarded the attribution of rights and duties, including liability for damages[16].
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After Sophia's citizenship announcement, critics were quick to point out the injustice in Sophia possibly having more rights than women in Saudi Arabia, raising important concerns about the human rights, further criticism will likely arise if robots gain more rights than animals[17]. After discussing the artificial

intelligence as the legal person, we move towards the right to speech of the artificial intelligence, but before moving to the issue there is a famous quotation of, Alexander Meiklejohn said in his book that "what matters for freedom of speech is not that all speak, but that everything worth saying shall be said"[18], so if we interpret, speaker identity should be irrelevant to Meiklejohn's inquiry, and strong artificial intelligence speech should be protected no less than human speech provided that its speech contributes to the democratic process- i.e. it is "worth saying"[19]. There is case of amazon artificial intelligence named 'Alexa' in regard of freedom of speech, in that case, the tech titan has filed a motion to quash the search warrant for recordings from an amazon echo in trial of James Andrew Bates, accused of murdering friend Victor Collins in Bentonville, Arkansas in November 2015, and it's arguing that motion that the response of Alexa, the voice of the artificial intelligent speaker, has first amendments rights under the United States constitution[20]. So, it shows that the law has started developing in regard to artificial intelligence.
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[15]https://www.businessinsider.in/Meet-the-first-ever-robot-citizen-a-humanoid-named-Sophia-that-once-said-it-would-destroy-humans/A-complex-set-of-motors-and-gears-power-Sophia-enabling-a-range-of-facial-expressions-/slideshow/61279454.cm [Last visited December 29,2017]

[16]http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML%2BCOMPARL%2BPE-

582.443%2B01%2BDOC%2BPDF%2BV0//EN [Last visited December 29, 2017]

[17]http://blogs.harvard.edu/billofhealth/2017/11/09/ai-citizen-sophia-and-legal-status/ [Last visited December 30, 2017]

[18]ALEXANDER MEIKLEJOHN, POLITICAL FREEDOM: THE CONSTITUTIONAL POWERS OF THE PEOPLE 26 (1965).

[19] SIRI-OUSLY? FREE SPEECH RIGHTS AND ARTIFICIAL INTELLIGENCE Toni M. Massaro & Helen

Conclusion

There is no doubt that artificial intelligence is growing rapidly in every type of the industries, but it is one of the most debatable issues for the lawyers and within the legal industry because the business environment is dynamic in nature and we have changed according to external environment for the purpose of survival, as the Charles Darwin said "Survival of Fittest" so that those people who do not adopt the artificial intelligence and embrace the change will leave behind, so in my sense it is very important that government should be aware with these technology because we cannot stop the inventions or people to stop the technology in their business because the client expectations are high and globalization has created enormous pressure on the business, so businessmen will adopt this technology in order to survive in the competitive environment, so that government should make law and policy in regard with artificial intelligence, so that it provides maximum benefit to the society, just because there are issues arising in artificial intelligence the government can't make any excuse in that regard because whenever any technology comes its impact on us is either in good way or in bad way, what is in our hand is that how we want to these technology to impact us.

To conclude, there is famous quotation by the famous author named John C. Havens once said "how will machines know what we value if don't know ourselves" so that it is very important to recognize our need and our values because after examining our need and values only then we can make law and policy for the artificial intelligence. It is a high time when all the leaders of developed and developing countries should come together to discuss the issue and make an international convention for this kind of technology, and it is a duty of every nation to make law for artificial intelligence before it's too late.

Nortonhttps://scholarlycommons.law.northweste rn.edu/cgi/viewcontent.cgi?article=1253&contex t=nulr [Last Visited December 31, 2017]

[20]https://www.forbes.com/sites/thomasbrewster/2 017/02/23/amazon-echo-alexa-murder-trial-first-amendment-rights/#77afa20f5d81 [Last Visited January 2