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ARTIFICIAL INTELLIGENCE: LEGAL AND ETHICAL ISSUES

Manisha Sagavekar¹ and Dr. Rohini Gote² ¹P. E. S. Modern Law College, Pune. ²Professor, MES Garware College of Commerce, Pune.

ABSTRACT

Artificial intelligence (AI) is becoming a crucial and frequently employed technique in a variety of fields and sectors. It has been around for a while, its breadth and applications have recently grown because of advances in processing power, better algorithms, and easy access to vast amounts of data. Nearly every aspect of life has been impacted by the fast growth of AI. Even while technology is still widely seen as being in its infancy, its impact has been so great that we are unaware of how much we rely on it unless it is clearly mentioned. There is barely any industry that artificial intelligence hasn't affected, from Siri and Alexa to Amazon and Netflix.



It is inevitable that the use of such technology will have legal repercussions in today's rapidly developing technological environment with the capacity for autonomous decision making. To achieve regulatory transparency, artificial intelligence entities need to be defined legally in judicial terms. The preservation of individual rights and the requirement to guarantee consistent technological advancement must be balanced when resolving legal challenges.

Currently, there are no well-defined regulations in place to address the legal and ethical issues that may arise due to the use of artificial intelligence. This article aims at mapping out touching points between AI and law. Through separating key elements of the definition and nature of AI, the possibility of its legal personality and the means by which AI may become a subject of law are analyzed.

KEYWORDS: Artificial Intelligence, Legal Issues, Ethical Issues, AI Regulations.

INTRODUCTION

Al can be defined as, "the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions."¹ Authors Stuart Russell and Peter Norvig have described Al as "the study of agents that receive percepts from the environment and perform actions."²

An interdisciplinary area of computer science called artificial intelligence (AI) aims to create robots that can carry out tasks that humans can do. Artificial intelligence or the Internet of Things (IoT)

https://www.investopedia.com/terms/a/artificial-

intelligenceai.asp#:~:text=Artificial%20intelligence%20(AI)%20refers%20to,as%20learning%20and %20problem%2Dsolving last visited on Feb 27, 2023.

² Stuart Russell and Peter Norvig, Artificial Intelligence: A Modern Approach (3rd edn. 2010).

¹Jake Frankenfield, 'Artificial Intelligence', available at

is the future of humans. Artificial intelligence can be used to describe any machine that can reproduce and complete tasks with or without human intervention. All applications include, for instance, the different algorithms used at recruiting platforms, facial recognition software, voice assistants like Google Home or Alexa, etc.³

The two very divergent views relating to AI are that though AI "replicate and simulate human intelligence" but simultaneously AI is also profoundly criticised for creating pressure.⁴ The reason for this that the pervading and previously available biases in AI have been converted to complicated challenges in current times.

This research paper aims at deliberating the legal and ethical issues concerning artificial intelligence. Along with this issue, the research paper also talks about the uses of AI and the concluding part would talk about available and possible regulations that would help in understanding and controlling the issues concerning AI as a technology.

ROOTS OF ARTIFICIAL INTELLIGENCE

Artificial intelligence has its roots in the era of "Greek myths of Antiquity". The "syllogism and its uses of deductive thinking" were invented by Aristotle. But the AI that we understand today is very different from the meaning it had in the past. The history of AI can be tracked all the way back to 1943. The first paper⁵ talked about a "mathematic model for building a neural network." In 1949 a book⁶ written by Donald Hebb talks about Hebbian learning which represents as a great model of AI even today. "Turing Test" a method of testing intelligence of a machine was introduced by Alan Turing in the seminal paper.⁷ Various other developments like the "self-learning program",⁸ the translation machine,⁹ etc have been acting as founding steps in the world of AI. The term Artificial Intelligence as we know today has come from "Dartmouth Summer Research Project on Artificial Intelligence" conference which was led by John McCarthy.¹⁰. Some of the recent AI advances are self-driving cars,¹¹ Google's innovation in speech recognition, Microsoft's inventions in the world of robots, etc.¹²

ARTIFICIAL INTELLIGENCE

The premise behind artificial intelligence (AI) is that human intellect can easily create a machine that can imitate and carry out tasks, both simple and complex. To accomplish this, AI seeks to "mimic human cognitive activity," including learning, reasoning, and awareness. New norms are established as

⁶ 'The Organization of Behavior: A Neuropsychological Theory' proposes theory of Neutral Pathways, available

athttps://pure.mpg.de/pubman/item/item_2346268_3/component/file_2346267/Hebb_1949_The_Or ganization_of_Behavior.pdf, last visited on Feb 24, 2023.

⁷ 'Computing Machinery and Intelligence' is a seminal paper written by Alan Turing on the topic of Al in the year 1950, available at https://ozaner.github.io/turing-test/, last visited on Feb 24, 2023.

⁸ In 1952, Arthur Samuel developed a self-learning program to play checkers.

⁹ The Georgetown-IBM machine, in 1954, automatically translated 60 Russian sentences into English.

¹⁰ 'What is Artificial Intelligence' (*Built-In*), available at https://builtin.com/artificial-intelligence, visited on Feb 22, 2023.

¹¹Stanley, the self-driving car won the DARPA Grand Challenge , available at

https://www.techtarget.com/searchenterpriseai/definition/driverless-car, last seen on Feb 22, 2023. ¹² Ibid.

³ Bekir Bera Goksu and Ugur Ozer, 'Responsibility for Damages Caused by Artificial Intelligence' (2020), 23 GSI Articletter 64.

⁴'What is Artificial Intelligence' (*Built-In*), available at https://builtin.com/artificial-intelligence last visited on Feb 23, 2023.

⁵ Warren McCullough and Walter Pitts'Logical Calculus of Ideas Immanent in Nervous Activity', available at https://link.springer.com/chapter/10.1007/978-3-319-10783-7_1, last visited on Feb 24, 2023.

technology advances, and old ones become obsolete. For instance, computers that perform routine duties are no longer thought of as AIs but rather as a part of them. AI is constantly improving so that many different sectors can benefit from it. "Machines are wired using a cross-disciplinary approach based on mathematics, computer science, linguistics, psychology, and more."¹³ Al's key objectives are to promote innovation, reduce the need for human labor, and maximize human potential. The AI system can now do the assignment with greater accuracy because it has improved in expertise. The development of robots and Al-generated labor has demonstrated that computers are capable of performing tasks on their own after being programmed. All is currently producing music, news reporting, and artwork. The world is going toward comprehensive service automation as a result of the global technological AI wave. The growth of the digital economy, advancements in cloud computing, and consumer demand for application-based services like speech recognition and navigation support are just a few of the drivers that have sparked AI research. Nowadays, AI is used for a variety of purposes in our daily lives, including medical diagnosis, customer service, fully automated services (like the issuance of driving licenses), voice-activated smart assistants, cyberspace protection, autonomous vehicles, and more. As a result, businesses like Google, Uber, Amazon, and Apple have increased their investments in artificial intelligence technologies. Google recently acquired DeepMind, a startup that specializes in artificial intelligence, created Tenser Flow, a machine learning system, and created a system that tracks how users interact with AI systems.

Al has a wide range of applicability like it is being used in healthcare sector, in finance sector,¹⁴ in recruiting jobs, in self-driving cars¹⁵, and not just this but currently technology is getting so advanced that you have switches that are operated on artificial intelligence. We can see use of Al in different areas like Healthcare, E-Commerce, Artificial Intelligence Powered Assistance, Fraud Prevention, Entertainment Streaming Apps ,Education, Robotics, Navigation and Travel, Gaming, Legal Industry, etc.

ISSUES ASSOCIATED WITH AI

Artificial intelligence (AI) has advanced significantly in recent years, from being able to perform better than humans on particular jobs to assisting businesses in automating their processes. Even with these developments, a number of issues need to be resolved before AI can truly become common place.¹⁶ We've undoubtedly being hearing how AI has the potential to be the answer to all of our issues in the future. But at the same time, we cannot deny there can be negative impact as well, such as how AI can take over like Skynet did and how we could all lose our jobs. The challenges AI encounters are numerous. For instance, hype created versus outcomes delivered, a lack of data, data bias, etc.¹⁷ However, recent concerns that these intricate, opaque systems might cause more societal damage than economic good have dimmed their once-outstanding promise to advance efficiency, lower costs, and speed up research and development.¹⁸ As there are numerous ethical, legal as well as social

¹³ Jake Frankenfield, available at https://semicolon-ltd.com/blog/article/evolution-of-ai?lang=en, last visited on Feb 22, 2023.

¹⁴ Roger Wohlner, 'How AI is Shaping the Advisory Landscape' (*Investopedia*, 10 October 2019), available at https://www.investopedia.com/contributors/53618/, last visited on Feb 23, 2023.

¹⁵ Joe D'allegro, 'How Google's Self-Driving Car Will Change Everything' (*Investopedia*, 20 December 2020), available at https://www.investopedia.com/articles/investing/052014/how-googles-selfdriving-car-will-change-everything.asp, last visited on Feb 23, 2023.

¹⁶ Trung Tran, 10 Biggest AI Challenges and How to Address Them, available at https://www.orientsoftware.com/blog/ai-challenges, last seen on Feb 25, 2023.

¹⁷ Srini Janarthanam, The Big 5 AI Problems, available at https://medium.com/infinitethoughts/thebig-5-ai-problems-f625adf299a, last seen on Feb 24, 2023.

¹⁸ Christina Pazzanese, Ethical concerns mount as AI takes bigger decision-making role in more industries, available at https://news.harvard.edu/gazette/story/2020/10/ethical-concerns-mount-as-ai-takes-bigger-decision-making-role/, last seen on Feb24, 2023.

challenges with AI, we must be vigilant about these matters to ensure that artificial intelligence isn't causing more damage than good.¹⁹

ETHICAL ISSUES

1. Unemployment –

Automation is the main worry of the hierarchy of labor. A shift from the physical labor that dominated the pre-industrial world to the cognitive labor that characterizes strategic and administrative work in our globalized society could be made as a result of the ways in which we have discovered to automate jobs.

2. Inequality due to Distribution of wealth -

Our economic system is founded on rewards for economic contribution, which are frequently determined using an hourly salary. The bulk of businesses still rely on hourly labor for their goods and services. Yet, a business can significantly reduce its reliance on its human workers by adopting artificial intelligence, which means that fewer individuals would receive income. As a result, the only people who will profit from AI-driven businesses are the proprietors of those businesses.

3. Bias

Humans, who are prone to prejudice and bias, design AI systems. There is a lot of chance that AI will give a biased opinion.

4. Mistakes due to Al

If we rely on AI to usher in a new era of work, security, and efficiency, we need to make sure the machine works as intended and that individuals are unable to overcome it and use it for their own purposes.

5. Evil Genies

We can think of a sophisticated AI system as a "genie in a bottle" that can grant wishes, but with horrific unanticipated outcomes.

6. Security

The more powerful a technology becomes, the more it can be used for evil reasons as well as good. This rule applies to AI systems that, when used maliciously, have the potential to do harm as well as robots designed to replace human soldiers or autonomous weaponry. Cybersecurity will become much more crucial because these battles won't just take place on the battlefield. The term "artificial intelligence assault" refers to a new class of cybersecurity attack that targets artificial intelligence systems. By employing this technique, adversaries can control these systems and change their behavior to achieve their mean objectives²⁰. These AI attacks indicate an emerging and recurring vulnerability with the potential to have severe repercussions on the nation's security as artificial intelligence technologies are increasingly incorporated into crucial facets of society²¹.

LEGAL ISSUES

1. IPR

Intellectual property rights (IPR) are a crucial instrument for preserving and encouraging human ingenuity. In terms of regulations like copyright and patent laws, artificial intelligence has

¹⁹ Bernard Marr, The 7 Biggest Ethical Challenges of Artificial Intelligence, available at

https://bernardmarr.com/the-7-biggest-ethical-challenges-of-artificial-intelligence/, last seen on Feb 24, 2023.

²⁰ Available at https://www.belfercenter.org/publication/AttackingAl, last seen on Feb 26, 2023. ²¹ *Ibid.*

emerged as a relatively recent topic of discussion. Discussions on Intellectual Property Rights (IPR) and Artificial Intelligence (AI) frequently center on the distinction between real human consciousness and artificial consciousness (AI)²². Determining who is responsible for such technologies' failures is one of the major problems. The World Intellectual Property Organization²³ (WIPO) participates in discussions on a regular basis and actively seeks solutions to eliminate such issues. When artificial intelligence (AI) is used in the invention process, the present intellectual property (IP) regulations are insufficient to solve problems with inventor identity and other infractions. The issues facing policymakers are considerable, and this issue has been the subject of ongoing discussion among lawmakers and academics.

India lacks a law for the regulation of artificial intelligence (AI) with respect to intellectual property rights, like many other nations (IPR). The idea of granting machines the status of inventors is still debatable and unheard of in the nation. This results from the implicit and explicit presumptions from the 1970 Patents Act and the Copyright Act, respectively. Several of the laws currently in effect impose limitations on how far the concept of a creator can be developed. So, only people are eligible for protection under India's current legal system.

2. Privacy

Artificial intelligence technologies are created using the free flow of data, and they must be created in a way that complies with all applicable privacy, confidentiality, and data protection regulations. Users should be able to halt the processing of their personal data and exercise their right to be forgotten through appropriate channels. It is also unclear whether AI and other similar automated decision-making entities should be subject to the current data protection and security requirements to protect individuals' right to privacy, which was deemed a fundamental right by the Hon. Supreme Court in KS Puttaswamy & Anr. v. Union of India and Ors²⁴. Moreover, it asks for the creation of a comprehensive data privacy policy that would apply to both the public and commercial sectors and regulate the protection of all data, including that which is used to create artificial intelligence. For situations involving the use of fingerprint or facial recognition through artificial intelligence and machine learning technology, surveillance regulations would also need to be revised²⁵. There are several loose ends that need to be secured, such as the duties and rights of the person in charge of the data used to construct artificial intelligence or the rights of the individuals whose data is being used to create these technologies. The tension between the development of artificial intelligence and the use of data for other, unrelated objectives needs to be carefully considered²⁶.

3. Personality

From a legal perspective, an entity's personality is a crucial consideration when determining its rights and obligations. Personhood can be either legal or natural. It is crucial to attribute personhood since doing so would make it clear who would ultimately be responsible for the consequences of a certain action or inaction. To avoid any legal snags, artificial intelligence entities should be given personality before being granted any rights or obligations. Such entities may be said to possess

²²Artificial Intelligence (AI) and Intellectual Property Rights (IPR)- Legal status and the future, available at https://ijclp.com/artificial-intelligence-ai-and-intellectual-property-rights-ipr-legal-status-and-the-future/, last seen on Feb 26, 2023.

²³ Available at https://www.wipo.int/portal/en/index.html, last seen on Feb 26, 2023.

²⁴ Writ Petition (Civil) No 494 of 2012; (2017) 10 SCC 1; AIR 2017 SC 4161.

 ²⁵ Available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8320316/, last seen on Feb 26, 2023.
²⁶ Ibid.

"electronic personality²⁷" when they engage in independent interactions with outside parties and make their own decisions.

4. Liability

According to legal standards, damages brought on by others' illegal behavior must be made up for. Legal requirements state that the offender or the person who is accountable for the offender's acts must pay for the harm. We need to determine who should be held accountable for the harm caused by artificial intelligence considering these legal requirements and the reality that it is not currently a legal topic²⁸. Take an accident involving a self-driving automobile that is managed by an artificial intelligence computer as an example. In this case, how will the culpability be divided? Applying basic liability laws to artificial intelligence programs will get increasingly difficult as they become more complicated. When a harm cannot be attributed to a human component or when an action or inaction by artificial intelligence technology could have been prevented by human intervention, the problem of assigning responsibility will also come up. When artificial intelligence enters into a contractual obligation after discussing the terms and conditions of the contract and there is a future breach of contract, the current legal system may once again be unable to assist²⁹. As artificial intelligence entities are not regarded as being subject to law, the relevant legal question in this case is what rules, regulations, and laws will regulate these circumstances and who will decide it.³⁰

5. Data Protection

The safety and protection of data are AI's top priorities. AI completely depends on large data, and since data is easily accessible, hazards related to it should be taken into consideration³¹. A user's private information may be exposed during the procedure, which could be dangerous. As artificial intelligence was also created by humans, people are attempting to surpass it. Stricter regulations are required to lower the risk³².

6. Lack of Accountability

A lack of accountability exists for an AI's deeds. The question of who is to blame for AI faults that cause users to experience a specific loss arises. Nobody can be held accountable for the errors³³.

³¹ *Ibid.*

²⁷ Sergio M. C. Avila Negri, Robot as Legal Person: Electronic Personhood in Robotics and Artificial Intelligence, available at https://www.frontiersin.org/articles/10.3389/frobt.2021.789327/full, last seen on Feb 26, 2023.

²⁸ Pramit Bhattacharya, Core Legal Issues with Artificial Intelligence in India, available at https://www.foxmandal.in/core-legal-issues-with-artificial-intelligence-in-india/, last seen on Feb 26, 2023.

²⁹ Ibid.

³⁰ Gabriel Hallevy, The Criminal Liability of Artificial Intelligence Entities – From Science Fiction to Legal Social Control.

Available at

https://ideaexchange.uakron.edu/cgi/viewcontent.cgi?article=1037&context=akronintellectualpropert y, last seen on Feb 26, 2023.

³² *Ibid*.

³³ Pallavi Gupta, Artificial Intelligence: Legal Challenge in India, available at

https://www.researchgate.net/publication/335967041, Last seen on Feb 26, 2023.

7. Technology War³⁴

Autonomous weapons are created with AI in mind and can be quite useful when preparing for battle. If this technology falls into the wrong hands, there might be a lot of casualties, and numerous AI conflicts would further complicate matters.

REGULATION OF ARTIFICIAL INTELLIGENCE35

In order to provide a safe atmosphere in regards to the risks associated with deploying AI, new regulations must be proposed immediately. It's critical to limit risk exposure through ongoing regulation. Artificial intelligence (AI) is regulated as a phenomenon that affects public sector laws and policies and modifies AI. This is a problem that calls for both national and international rules to regulate high-risk scenarios. Since it has become a global issue, the United Nations does not place a high priority on AI laws.

One of the regulatory authorities i. e. European Union drafting the framework for AI-related laws and modifications. The General Data Protection Regulation (GDPR), one of the EU's legislation, serves to protect personal data and offers users' privacy and safety. It outlines a variety of obligations, rules, and solutions for problems that may arise. The European Commission proposed Regulation of AI on April 21, 2021, with the goal of establishing a global regulatory framework that would provide a legal aspect for the anticipated advancements in the field of AI. It emphasizes protecting consumers' basic rights when employing AI. It would be exceedingly difficult to govern AI systems globally, according to specialists who have examined the high risk environment in today's technological world. Thus, there is a worldwide desire to execute and implement a legal framework with the potential to protect human interests.

REGULATION OF ARTIFICIAL INTELLIGENCE IN INDIA³⁶

India does not have any specific law related to AI. There is a need to intervene as this has become an issue on a national platform. Currently, AI is being adapted and encouraged in India at a faster pace than expected. The need for regulation arose due to the high pace of advancement in the adoption of AI. In 2017 one of the steps taken to safeguard the people was the introduction of the Right to Privacy as a fundamental right shielded under the Indian Constitution. Justice Srikrishna committee recommends the government introduction of privacy laws. A Personal Data Protection Bill has been drafted in 2019, once it is passed by both houses of the Parliament it will become a law.

The Government of India has prioritized building up a Digital India and has launched various schemes related to AI. According to NITI Aayog³⁷ has adopted a three jagged theory:

- 1. Launch projects that use the AI complete proof concept.
- 2. Establishing an AI environment and ecosystem in India.
- 3. Cooperation with experts and contributions.

In 2018, the planning commission of India, NITI Aayog introduced the National Strategy on Artificial Intelligence [NSAI]. Various provisions regarding the application of AI were discussed. The NITI Aayog report suggests the following :

³⁴ Daniel Araya, AI Is Rapidly Transforming Warfare: New Rules Are Urgently Needed, available at https://www.cigionline.org/articles/ai-is-rapidly-transforming-warfare-new-rules-are-urgently-needed/, last seen on Feb 26, 2023.

³⁵ Ashwin Singh, available at https://indianlegalsolution.com/regulation-of-artificial-intelligence/, last seen on Feb 26, 2023.

³⁶ Available at https://www.responsibletech.in/post/regulating-ai-in-india-of-outcomes-and-processes, last seen on Feb 26, 2023.

³⁷ NITI Aayog is developing itself as a state-of-the-art resource centre with the necessary knowledge and skills that will enable it to act with speed, promote research and innovation, provide strategic policy vision for the government, and deal with contingent issues, available at https://niti.gov.in/, last seen on Feb 27 2023.

- Establishing a group made up of representatives from the Department of Industry Strategy and Promotion and the Ministry of Corporate Affairs to examine the regulations required for intellectual property legislation.
- Creation of enticing IP regimes for AI improvements.
- Development of regulated networks for privacy, security, and data protection.
- Development of ethics for each industry.

Four committees were set in motion by the Ministry of and Information Technology to analyse multiple ethical issues. The Bureau of India Standards has launched a new committee for systematic and levelled AI. The government is working on various safety parameters to limit the risk associated with its interaction.

Another initiative taken by NITI Aayog is the establishment of AIRAWAT³⁸ – AI Research, Analytics and Knowledge Assimilation platform. It is an approach paper given by senior adviser, Anna Roy recommending AI Specific Cloud Compute Infrastructure. As India has relied on cloud-based AI, AIRAWAT talks about requirements for the ideal use of AI.

RESPONSIBLE ARTIFICIAL INTELLIGENCE

In 2020, NITI Aayog drafted documents based on launching an oversight body and enforcement of responsible AI principles which covered the following aspect :

- Inspecting and operating principles concerned with responsible AI.
- Crystal clear design, structure and process to set particular standards.
- Formation of the legal and technical network.
- Imparting education and making aware about responsible AI.
- Creation of new Techniques and tools for a responsible AI.
- Representation of India on a global standard.

REGULATION OF AI WEAPONS³⁹

Al is being used to create a variety of new weaponry, such as robotic weapons, battle robots, cyberattack software, and armed drones. Lethal Autonomous Weapons (LAWs) are a subset of autonomous military weapons that operate on their own and make use of Al. Although the use of these weapons is not prohibited, it is continually regulated by many nations. Robotic conflicts could break out and cause widespread destruction if such weapons are not regulated and controlled by the government. International treaties and the use of the legal substructure can be used to govern and regulate the Laws to overcome these difficulties.

CONCLUSION

The field of AI, its applications, and its reach are all booming globally. Both the public and private sectors have adapted to using AI. Various nations and civilizations have different viewpoints on how AI is applied and define it differently. When everything expands, it becomes more complicated, thus a set of standards is also established for AI. Artificial Intelligence is present everywhere in the form of codes and smart technologies, but it can be challenging for the average person to interpret these protocols.

Use of Artificial Intelligence in the various activities by the public creating new challenges in the area of legislation. The network society's everyday use of IT, including AI, differs from institutional, frequently bureaucratic behavior in terms of its operating principles. AI is a crucial component of IT's operating system and is spontaneously, continuously evolving and changing. The absence of legal

³⁸Available at https://indiaai.gov.in/research-reports/airawat-establishing-an-ai-specific-cloud-computing-infrastructure-in-india, last seen on Feb 27, 2023.

³⁹Available at https://www.weforum.org/agenda/2021/06/the-accelerating-development-ofweapons-powered-by-artificial-risk-is-a-risk-to-humanity/, Last seen on Feb 27, 2023.

oversight in the area of artificial intelligence is a concern for all network societies, including civil law and common law nations. This issue transcends national boundaries, indicating that it is not exclusive to any one country or continent. This issue has global relevance. We require a worldwide AI legislation unification act in addition to a regional one because of this.

To achieve regulatory transparency, artificial intelligence entities need to be defined legally in judicial terms. The preservation of individual rights and the requirement to guarantee consistent technological advancement must be balanced when resolving legal challenges. Broad ethical norms would also be upheld under proper rules. The industry would flourish with the aid of the existing legal standards, which would also guarantee that adequate safety precautions are in place. In order to maintain a balanced approach in the world, regulation of AI is necessary because it is a smart machine that mimics human intelligence and behavior. The advantages would be maximized and the danger would be reduced if the regulations were followed. It is crucial to understand that while AI itself does not disturb people, its common use in appalling ways does.