

# Towards Artificial Intelligence: A future of Power or Carnage of Ethics?

Dr. Nisha Dhanraj Dewani  
Associate Professor, Dept. of Law,  
Maharaja Agrasen Institute of Management Studies,  
Delhi (India)

**Abstract--There are several fundamental and obvious difficulties that arise out of the unregulated and uncontrolled usage of AI in various aspects of life, given the growing importance of AI in the real world and its accompanying technicalities which engineers and researchers are still configuring. The market for technological innovations has always been flourishing in India, and AI is no exception. By the end of 2023, India is anticipated to invest \$1 billion in AI. In addition, it is predicted that AI would contribute \$957 billion by the year 2035, or around 15% of India's present gross domestic product. The extent of AI integration into Indian residents' daily life will grow dramatically. It is also evident that the use of AI in the primarily rural Indian society will be very different from that of the developed western nations while there's no denying that such a technological advancement will make our lives easier. Indian laws are unquestionably falling behind the curve in terms of innovation. The antiquated technological laws are unable to address any potential problems brought on by AI. Two of Such qualms include privacy violations and discrimination brought on by AI, which are currently not given the attention they need. This research paper will explore all possible areas where these issues occur. The Information Technology Act of 2000 is the only complete law governing privacy in effect at the moment. When the legislation was being written, artificial intelligence technology was in its infancy stage. Since then, there has been a significant change in how AI functions and its effects. Whereas Indian residents continue to heavily rely on the fundamental safeguards guaranteed by the Indian Constitution to address bias-related complaints. Thus, this paper will encompass the negative and positive interface between AI and ethics.**

**Keywords-** artificial intelligence, data security, discrimination, privacy, technology

## I. INTRODUCTION

A comprehensive, detailed, and exhaustive approach is used in artificial intelligence (AI) to imitate human intelligence. With the help of bot programming, AI is a contemporary technology that enables the machine to think and act like a human being. It might also be defined as any type of artificial object created by humans that is capable of acquiring new information on its own and using memory functions to execute mental tasks like analogical and critical thinking. AI is "a class of computer systems meant to tackle problems involving inferential reasoning, decision-making

(on the basis of partial or ambiguous knowledge), classification, optimization, and perception". AI refers to a machine's or a robot's capacity to carry out operations often performed by intelligent beings. Therefore, AI is present in every aspect of life, from playing online games to receiving auto-correct suggestions when composing an email to using a company's or government agency's services. As per the definition of the European Commission as "AI's system demonstrates intelligent behaviour by analysing their environment and behaving independently to achieve specific goals." AI can be integrated into hardware devices, such as advanced robots, autonomous vehicles, drones, or Internet of Things applications, or it can be entirely software-based, acting in the virtual world (for example, voice assistants, image analysis software, search engines, speech and face recognition systems)ii. AI can be divided into two types: 'Narrow AI', often referred to as not very strong (weak) AI, and general AI, also known as 'Strong AI'. In one area, narrow AI is competitive with human logic and thought. IBM's Deep Blue chess playing algorithm serves as an example of weak AI. It was capable of defeating the world's top chess player, yet it is unable to play checkers. Even the most brilliant AI could have limitations: A self-driving car's AI is incapable of flying a plane.

Certain qualities of Artificial Intelligence are expected, such as communication, mental knowledge, external information, motive-driven behaviour, and innovation, which when combined generate the greatest outcomes and help in relieving those issues that may be experienced owing to a lack of any one feature. Artificial intelligence works best when it fully comprehends the information, applies information analysis to accomplish a goal, and then communicates that goal to the rest of the world. The field of artificial intelligence (AI) is frequently referred to as the one that will alter society in the coming decades. Autonomous vehicles, chatbots for customer service, software that can handle information nearly entirely on its own, and much more. This area is covered in the name of computer science too. The goal of this discipline is to learn how to create autonomous

machine intelligence, which could be accomplished by mimicking “human intelligence”. With the development of technology, including Artificial Intelligence (AI), Autonomous Systems, the Internet of Things (IoT), and Robotics, new services and products have been produced, opening up new and improved options for society and the economy. Recently, for the first time, the Delhi Fire Service (DFS) used two robots to douse the blaze<sup>iii</sup>. Along with it, each day that goes by, AI plays a bigger role and is increasingly involved in our daily lives<sup>iv</sup>.

Despite having numerous benefits of this technology, AI is still affecting almost everyone, either directly or indirectly, by taking on tasks that are typically performed only by members of the human race and by serving as the backbone of many industries, including e-commerce, robots, financial markets, consumer apps, facial recognition, and industrial automation because of its ubiquitous and adaptable methodologies. There are several fundamental and obvious difficulties that arise out of the unregulated and uncontrolled usage of AI in various aspects of life, given the growing importance of AI in the real world and its accompanying technicalities which engineers and researchers are still configuring. The market for technological innovations has always been flourishing in India, and AI is no exception. As discussed in the abstract part, By the end of 2023, India is anticipated to have spent \$1 billion on AI<sup>v</sup>. In addition, it is predicted that AI would contribute \$957 billion by the year 2035, or around 15% of India's present gross domestic product. The extent of AI integration into Indian residents' daily life will grow dramatically. It is also evident that the use of AI in the primarily rural Indian society will be very different from that of the developed western nations. Although there's no denying that such technological advancement<sup>vi</sup>.

Undoubtedly, our lives will be made easier by the use of technology, but Indian laws are falling behind. The antiquated technological laws are unable to address any potential problems brought on by AI. Two of these issues are privacy violations and discrimination brought on by AI, neither of which are being given the attention they deserve. The Information Technology Act of 2000 is the only complete law addressing privacy as of right now. When the legislation was being written, artificial intelligence technology was at its infancy stage. Since then, there has been significant changes in the area of AI. Indians continue to heavily rely on the fundamental safeguards guaranteed by the Indian Constitution to address bias-related issues.

As a result, neither the IT Act nor the Constitution of India are sufficiently address the privacy and bias-related issues raised by the usage of AI.

## II. LITERATURE REVIEW

The ability of artificial intelligence to discriminate brutally and deliberately has been noted by several experts. Reiterating that discrimination is now a pervasive and significant issue in human rights, and that AI has the potential to make it worse, AI discrimination calls for a lot of attention. But as far as the researcher is aware, legal and human rights scholars have paid little attention to artificial intelligence discrimination. It's true that some activists, scholars, and human rights non-governmental organizations(NGO) have made artificial intelligence discrimination public. Legal experts and international organizations have developed a significant interest in AI prejudice, especially in recent years, as a result of a number of high-profile lawsuits alleging AI discrimination. The European Council released one of the most comprehensive human rights reports on AI-driven discrimination and strategies to address it in 2018<sup>vii</sup>. In their thorough investigation of AI-bias, Barocas and Selbst demonstrated the importance of training data in data mining, how AI might prejudice marginalized and vulnerable populations, and the shortcomings in American anti-discrimination law<sup>viii</sup>. In their reports, the UN Special Rapporteur and the Commissioner for Human Rights of the Council of Europe voiced concerns about AI discrimination<sup>ix</sup>. On artificial intelligence's discrimination in numerous sectors, some academics have shed information. Exhaustive research into search engine bias was done by Safiya Noble. Joy Buolamwini and the American Civil Liberties Union claim that facial recognition systems are ineffective when used by women and people of color. ProPublica revealed how a well-known risk assessment algorithm misclassifies Black defendants as high-risk offenders. According to a research by the Council of Europe, predictive justice methods introduce bias into the legal system. The number of articles on AI that have been published in the last ten years has increased significantly. Examples of this include neural networks, computer vision, search and optimization, machine learning, and probabilistic reasoning. However, it's reasonable to conclude that legal scholars haven't delved deeply into the subject of artificial intelligence and its potential effects on human rights. It is critically necessary to do more study and debate, use a human rights perspective, and use multidisciplinary approaches in light of the fact that artificial intelligence is a dynamic and diverse science with the potential to rule the future.

### III. HISTORICAL BACKGROUND AND GENESIS OF THE CONCEPT OF AI

The interdisciplinary field of research of AI is relatively new. A model of 'simulated neurons', the primary contribution to computer reasoning, dates back to 1943. The primary brain network PC, introduced in 1950, was another early model. The most convincing early analysis of AI is found in Alan Turing's well-known 1950's article, *Computing Machinery, and Intelligence*, which introduced the Turing Test. A programme must engage in a five-minute conversation with an investigator utilizing web-based prepared messages in order to pass the test.

The investigator must next determine if they are speaking with a person or a programme. If the programme can trick the investigator 30% of the time, it passes the test. Man-made brainpower is thought to have been created in 1956. The initial investigation on AI was led by John McCarthy and nine experts. McCarthy started using the term AI in his literature around the same period. PCs have constrained capabilities in the early days of AI. "Early vigour, great expectations" is a reference to this time period (1952–1969). The following years (1969–1973) made the scientists aware of the shortcomings and sense of reality<sup>xi</sup>. Analysts began to use the algorithm in specialized areas in the years that followed (1969–1979) after adding industry-specific information to it. Projects like Dendral, Heuristic Programming, and the SHRDLU framework advanced the scientific, medical, and linguistic disciplines. Due to the employment of A.I. frameworks, man-made reasoning has grown into a billion-dollar industry since 1980, assisting businesses in cost reduction. Similar to past AI researchers, corporations had high expectations for AI that weren't met for a very long period<sup>xii</sup>.

Early studies on AI are regarded as inadequate and exploratory. AI research adopted a more scientific methodology starting around 1987. Analysts started emphasizing "machines that think, that learn, and that build" (artificial intelligence on par with humans) starting in 1995. As a result, AI has become a more interdisciplinary field. Since IBM's chess-playing PC Deep Blue defeated the world chess champion in 1997, the year is referred to as a success. As a result of improvements in processing power, access to vast amounts of data, and new web-based platforms started in 2010, AI grew significantly. AI is used in many aspects of life nowadays. Experts affirm that AI has advanced impressively in many areas, particularly in gaming, interpretation, independent transportation, and

image recognition. The question of AI's future is one that is challenging, nuanced, and divisive. According to studies in the field, over half of experts believe that between 2040 and 2050, powerful AI might achieve parity with humans; by 2075, the likelihood will rise to 90%. According to experts, there is a 31% chance that this advancement will be "bad" or "extremely awful" for humanity<sup>xiii</sup>.

### IV. SUPPORTIVE AND DESTRUCTIVE AI

Every significant development in technology has the ability to either improve or advance civilization. By enabling advances in disease detection and treatment, altering urban living and transportation, and reducing the consequences of climate change, AI's data processing and analysis capabilities can aid in resolving some of the most critical global issues. Contrarily, these same skills can permit surveillance on a never-before-seen scale, allow for the identification and victimization of the most helpless, and transform the economy at a rate that no amount of job retraining could possibly keep up with.

#### *Supportive AI*

- **Medical Services:** The detection and treatment of ailments have already advanced significantly owing to AI. In locations where medical treatments are in short supply, AI is also being utilized to enhance access to them. The application of AI benefits infection sufferers as well because it enables authorities to act in real-time to halt an outbreak before it even begins<sup>xiv</sup>.
- **Simplifying agribusiness:** AI is combining information from global satellites, symbolism, climate, and agronomic data to help ranchers improve harvest yields, identify and treat crop infections, and adapt to changing conditions. Accuracy horticulture is a kind of growing that can help increase ranch productivity so that more of the world's expanding population can be cared for<sup>xv</sup>.
- **Environment Impact Assessment:** AI is being used to create more accurate environment models for researchers. Other applications include reducing environmental change, anticipating catastrophic catastrophes, and controlling uncontrolled life. Currently, AI is used to evaluate environmental models, predict

extreme weather occurrences, as well as more easily predict extreme weather events and manage everyday calamities. AI is also helpful for identifying and apprehending poachers, as well as for locating and apprehending organisms that carry disease.

### *Destructive AI*

- **Prejudice-spreading in law enforcement:** There are numerous documented examples of AI having negative outcomes in the equality framework. In this context, AI is frequently used in two distinct areas: risk scoring, which involves determining whether a litigant is likely to commit another crime in order to recommend sentencing and set bail, or predictive policing, which involves using information from various sources to predict where and when wrongdoing will occur and directing policing accordingly. These efforts are frequently of a decent kind. The use of AI for risk rating of responses is presented as eradicating recognized human prejudices of judges in their decision-making regarding sentencing and bail. And predictive policing initiatives work to best allocate frequently constrained police resources to prevent crime, but there is typically a high risk of mission creep. The predispositions that these AI frameworks are trying to control are further fuelled by their ideas, thoughxvi.
- **Widespread surveillance:** It is not surprising that AI is currently being used to enable mass spying all over the world given that it has the capacity to process and analyze various information streams gradually. Apart from the above, the use of AI in facial recognition software is the most obvious and dangerous example of this. States are focusing on face recognition technology as a tool to screen their inhabitants, work with profiling of particular groups, and even distinguish and find individuals, despite the fact that the technology is still in its infancy. FRT is used for target and discrimination as well as observation and differentiationxvii.
- **Contributing to the propagation of misleading information:** The spectre of "deep fakes," in which AI frameworks are capable of creating plausible-sounding video and audio recordings of real people.

Although deep fakes have not yet been used in real publicity or disinformation campaigns and the produced sound and video are still insufficient to appear fully human, the AI behind deep fakes is still developing, and as a result, there is potential for sowing discord, inciting conflict, and further creating an emergency of truth that should not be discounted.

### **AI ETHICAL CONCERNS**

AI applications are used in numerous regions to make life less demanding and more agreeable, particularly for individual support, email separating, extortion avoidance, planning, advertising models, computerized dissemination, voice acknowledgment, facial acknowledgment, content management, video creation, news age, client care, monetary announcement, and so forth. One could argue that AI will become more integrated into human existence than it already is. However, as these uses have advanced, new moral difficulties have emerged. For instance, due to their autonomy and proactive travel, self-driving cars have already covered a significant amount of miles. Because of the potentially enormous harms, these decisions have moral and social ramifications. For instance, a fatal accident involving a Tesla vehicle occurred in May 2016. This was noted as an accident rather than a crime deserving of punishment. Now the paradox enters the picture: How could it ever be guaranteed that these cars will make moral decisions? A similar question might be asked regarding various different AI frameworks, such as those used in robots, weaponry, applications for medical services, manufacturing devices, etc.

The following list addresses the core moral concerns:

- *Machine rights and AI's moral duty*

In March 2018, a woman died after an accident involving an Uber self-driving car. These are the actual models that have been used up to this point. These simulations demonstrate that as these vehicles develop, the likelihood of



accidents of this type may increase. Furthermore, given that they caused a fatality, is it appropriate to hold these vehicles, as AI applications, accountable? What would be their moral, legal, and societal standing if that were the case? Who will be the party in question if not? As a result, one could argue that moral guidance is unquestionably necessary for these devices, which make decisions based on their own logic, given the increasing quantity of events and potential problems. In relation to the situation with the robots, which are now present in public activities and perform a wide range of jobs, a similar discussion is brought upxviii. It is expected that they will visit homes to clean them, interact with children, serve as judges in court, and other things. Simply put, they will be more crucial to human existence than they have ever been. Given that they will be in the spotlight so much, there are a variety of questions about their position and professions that should be segregated. The main concerns are whether or not they should be recognised as "legal" elements and what status should be given to them from the perspectives of residents, specialists, social equality, and criminal law. Could they ever be compared to one another as creatures and treated similarly? If a robot harms a partner or customer, who will be held responsible? How could a robot be turned down? Or would they typically be perceived as mere inanimate objects or lifeless creatures? There is a problem with the ethical responsibility and privileges of these applications, as is seen in both self-driving car and robot models. As a result, these problems ought to be easily distinguishable, and important steps ought to have been taken into account when developing these applications. A conversation has already started on this idea and seems to be progressing moving forward. For instance, the government of Saudi Arabiaix.

- *Inadvertent consequences of using AI*

Even while AI applications are developed by people, it is not at all surprising that these applications could lead to unforeseen results for a variety of reasons, which could harm both people and the environment. For instance, while having

no purpose of doing so, a programme can accidentally develop a hyper-genius AI. People may get messages through a phishing scheme that is designed to deceive them into handing out their security certifications. Robotizing massive amounts of these types of texts with simulated intelligence can be used to extract sensitive information like passwords, financial information, and so on. Furthermore, AI might be used to produce fake sound and visual data. These programmes have the ability to imitate someone else's voice and be used dishonestly. Furthermore, AI applications may be misused to compromise national or international security. For instance, drones that have been weaponized are being used in many different contexts. Ten tiny drone bombs destroyed the last model, which was a Russian plane in Syria. From the very beginning of the technological revolution, engineers and AI analysts were aware of everything that was happening and how innovation could be misusedxx. Accordingly, several researchers in the disciplines of artificial intelligence and closely linked ones like mechanical technology have seen a few moral conversations. To address these concerns about autonomous weaponry and raise awareness of the risks and unexpected effects of AI, researchers, engineers, and industry leaders have written open letters to the state-run administrations. The AI applications have comparative problems, especially the complicated and intertwined ones like robotics or self-driving cars. The AI stumbles that may occur when using these frameworks are a significant additional problem. The majority of artificial intelligence apps rely on predefined computations and gather a lot of data during dynamic interaction. Different information sources and outcomes need to be specified in order for the decisions made to be sufficient. In essence, the framework's objectives and metrics should be clearly defined as well. However, such perfect conditions don't exist in the real world. AI must learn how to think more like humans in order to have the choice to operate successfully in this reality. However, due to case ambiguity and vulnerability, AI applications may

make different mistakes, which is another problem for these frameworks.

- *AI and human interaction*

Artificially intelligent programmes are constantly improving at simulating human conversation and connections. In the modern world, a robot may welcome a customer into a store. After a few days, if the same person returns, the robot will recognise them and even remember what they had previously bought. How should its existence affect his or her actions or thoughts, taking everything into account? Would it be surprised if a robot smirked at him or her? Should there not be a machine there, may he or she feel miserable? Is it possible for those with robots to find a companion? It is easily observed that in many situations, such as client administration, interpersonal relationships, or business transactions, people would frequently cooperate with these types of AI programmes as though they were people. Robotic applications that use computerized reasoning will have the ability to form connections with people, notwithstanding the possibility of some early difficulties. As a result, it is extremely likely that many real and potential effects of these kinds of links will be observed on human behaviour.

- *AI and its Security*

Several questions about the security of an AI framework should be addressed: For an AI framework, what is security? What kind of damage, if any, could these frameworks cause if a security breach were to occur? In essence, it is understood that security concerns could result in a variety of problems in public life. For instance, Microsoft's chatbot Tay showed how an AI might develop bad mentalities from its current situation, which led to a situation that was different from what had been planned. In addition, many countries are producing autonomous robot weaponry. These self-developing AI frameworks could become so strong that it would be difficult or impossible to stop them from achieving their goals, which could have unexpected side effects.

- *Unemployment and disparity*

From a practical standpoint, it makes sense that using computerized reasoning would enable a company to operate with fewer employees, resulting in a decrease in costs and an increase in revenue. As a result, one of the primary consequences of developing AI applications is predicted to be an increase in social and economic inequality. For instance, in 2014, the three largest firms in Silicon Valley and Detroit generated roughly the same amounts of revenue, but Silicon Valley had many times fewer representatives as a result of AI applications. AI frameworks seem to make things more difficult for low-skilled and uneducated professionals in the workplace. A rise in computerized reasoning will likely result in a decline in low-expertise occupations (such as those that don't require expertizing or extensive preparation), increasing the gap between generalists and unspecialized specialists in the public eye. This is based on verifiable patterns and current AI capabilities. Additionally, it is anticipated that new positions will be generated in many sectors while old positions will likely disappear, perhaps escalating already existing differences between metropolitan communities or countries. In addition to differences in productive areas, orientation problems are also another source of imbalance. It is acknowledged that a greater proportion of men than women labour in the fields of research, innovation, design, and math to progress AI resulting in biased decisions. As a result, algorithms and AI developments developed in such an environment ignore these inequalities and perpetuate those biases. One could argue that AI will continue to produce biased outcomes unless fundamental reforms are made to society as a whole.

- *Artificial Intelligence Violating Privacy*

AI is now routinely used in a variety of fields. Utilizing data of all kinds has subsequently increased worries about network security, information security, and data privacy. Justice K.S. Puttaswamy v. UOI. After the Supreme Court's judgement recognising privacy as a basic

right, as mentioned in the previous section, this concern has assumed remarkable relevance. To address these issues, it is now necessary to give data protection a meaningful, practicable, complete legal structure.

There is a violation of personal data of people. The personal information is any information that can be used to identify or, more specifically, recognise an individual. The problems with ID could be sudden or abnormal. No matter how accurate the information may be but it includes all kinds of private data, such as appraisal or assessment. Individual information is expected to be protected by the legal framework. Besides the above, it is a fact that both public and private components have started to analyze the subject's private information with the help of automated tools (AI). Both public and private substances should appropriately guarantee the protection of personal data while being dissected. This is what the data protection system is meant to ensure. With the aid of AI, both private and public bodies would handle the information. To ensure that data privacy and protection are properly guaranteed, handling procedures should be simple at all times. This issue should be addressed by the legislation in order to prevent the misuse of AI applicationsxxiv. To ensure that the security of data is not in doubt, the legislation should include processes to identify the entity accountable for compliance when processing information with AI help. The protection of data processed by AI software should be the responsibility of both the processor and the regulator.

### *Impact of AI on Education and Health Sectors*

Search results, social media feeds, commute routes, and other AI-generated results are all based on hundreds of data points that AI processes and analyses to provide the intended results. There is a good probability that our data may be utilized against us given how much data AI systems use and process. Privacy violations are the most noticeable impact, followed by prejudiced AI systems and

unfair categorization and profiling. China is a recent example, when high school students are exposed to facial surveillance. On the other hand, 34.7 million Indian students attended higher education in 2019. Digital distance learning has made significant inroads into the Indian market due to the lack of easy access to education in rural areas. The need for kids to have easy access to home-based learning has only grown since the COVID-19 outbreak broke out.

Although many students have found AI-enabled learning tools to be helpful, they are not without flaws. Since the effective operation of AI primarily depends on granular data, students have also been the topic of data collection and profiling. An AI-driven student loan programme called "Credence" allocates money to students based on their sensitive personal data, such as their family history. Exacerbating preconceptions, the company can prioritise and favour a student with higher financial standing and superior learning skills. Since the company uses over 15 million data points to identify qualifying applicants for loan approval, it's also a serious blow to students' privacy and data security. The prejudice built into data. The Andhra Pradesh government worked with Microsoft's AI system in 2015 to predict school dropout rates, which is another instance of a well-intentioned deployment of AI that has significant privacy ramifications. They did this by tampering with three different sets of data: socioeconomic data from the UIDAI-Aadhaar system, educational assessment data from various sources, and data from the Unified District Information System for Education (U-DISE)xxv. Although the initiative helped to identify and address the reasons behind early dropouts, it also put thousands of students' privacy in danger and increased their susceptibility to abuse. Additionally, it removed students who did not have an Aadhaar number and were not registered in U-DISE in the educational sector increases the risk of discriminationxxvi.

This has recently been proven by AI, which relieves human shoulders of

responsibility more effectively. In India's remote rural areas, Forus Health's "3Nethra" is a shining example of AI implementation. The portable device screens and diagnoses common eye illnesses using Microsoft's retinal imaging Application Programming Interface (API), and it functions even in places with spotty internet access. AI has also done a fantastic job at detecting breast cancer. An AI algorithm developed by the startup NIRAMAI employs a portable device to non-invasively and contactless identify breast cancerxxvii.

As promising as AI's results in the healthcare industry may be, it is impossible to disregard the technology's negative effects. Patients' sensitive personal information, such as their medical history, diagnoses, and surgical results, are gathered and used by AI. Patients lack informed permission, so they are unaware of the information they will share or how it will be utilised. According to opponents, patients were not properly informed about how and what data will be accessible by Google's DeepMind in partnership with the Royal Free Hospital in London. Similar programming was run by IBM Watson in Manipal, India, but it received harsh criticism. The issue is not resolved with this. Because they have access to a patient's whole medical history, healthcare organizations can refuse them treatment and charge them more. With the use of AI, discrimination and categorization from the real world also affect the healthcare industry.

## CONCLUSION

The article's opening section discusses the concept of artificial intelligence's unambiguous nature. This is because, the definition of "intelligence" is itself ambiguous and complex, making it difficult to define artificial intelligence. The mid-section states that AI is a relatively new, diverse field of study that is quickly growing but people may face many issues. AI has advanced significantly during the past few years. Due to the abundance of knowledge and accessible computational power, the field began to exhibit an emotional shift after 2010. Today, AI is used in a variety of fields. The section looks at the present applications of AI in more detail, both advantageous and detrimental. To continue the

same, further research was done on the moral conundrums that arise with the use of AI technology. Since experts disagree on what will happen to artificial intelligence in the future, the author refrains from speculating on any potential catastrophes and instead focuses on the current issues arising from the use of AI. Along with the same, it is urged that clear protocols should be put in place to make sure that technology is utilized responsibly. Doing so will foster faith in their ability to operate as a crucial enabler for widespread adoption in a way that utilizes the most of what technology has to offer while safeguarding citizens. It is also emphasized that there needed to be a careful balance between protecting society (individuals and groups) and not limiting research and innovation in the area. Also, there are other significant and remarkable concerns like jurisdictional issues, issues associated with impediments to control AI applications, etc. These need to be considered while framing legislation for data protection in India.

## REFERENCE

- [1] Accenture, report on "Artificial Intelligence: Economic growth in India" (2021) available at chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.accenture.com/\_acnmedia/PDF-153/Accenture-AI-For-Economic-Growth-India.pdf.
- [2] The European Commission for the Efficiency of Justice of the Council of Europe, European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their environment (2020).
- [3] Times of India 27th June 2022; available at https://timesofindia.indiatimes.com/city/delhi/firemen-use-robots-to-douse-blaze-in-three-storey-building-in-delhi/articleshow/92477647.cms
- [4] YavarBathae, "The Artificial Intelligence Black Box and the Failure of Intent and Causation" 31 Harvard J. Of Law & Tech, 889, 906.
- [5] Niti Aayog, Report on Responsible AI #AIForAll, Approach Document for India, p.11; available at chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.niti.gov.in/sites/default/files/2021-02/Responsible-AI-22022021.pdf.
- [6] "Artificial Intelligence: Economic Growth in India" research by Accenture, 2019.
- [7] Council of Europe, Discrimination, artificial intelligence, and algorithmic decision-making (2018).
- [8] Barocas, S., &Selbst, "Big Data's Disparate Impact", 104 California Law Review, 671-732, 2016
- [9] David, K., Report of the Special Rapporteur to the General Assembly on Artificial Intelligence technologies and implications for the information environment (A/73/348). Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression (2018).
- [10] Crockett, L. J., The Turing Test and the Frame Problem, p.56-77 (New York: Ablex Publishing Corporation 1994)
- [11] Buchanan B. G., "A Very Brief History of Artificial Intelligence", Artificial Intelligence Magazine, 26(4) (2005).
- [12] Matti Pietikäinen and Olli Silvén, Challenges Of Artificial Intelligence From Machine Learning And Computer



- Vision To Emotional Intelligence, p. 29: Center for Machine Vision and Signal Analysis (CMVS), University of Oulu; available at chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://arxiv.org/ftp/arxiv/papers/2201/2201.01466.pdf (visited on 23/1/2022).
- [13] N Sambasivan et al, "Re-imagining Algorithmic Fairness in India and Beyond", Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency, p. 45-50.
- [14] YavarBathae, "The Artificial Intelligence Black Box and the Failure of Intent and Causation" 31 Harvard J. Of Law & Tech, 889, 906.
- [15] S Kalyanakrishnan et al, "Opportunities and Challenges for Artificial Intelligence in India", Proceedings of the 2018
- [16] Shubhangi Khandelwal, "Artificial Intelligence and the need for data protection in legal system", The Daily Guardian.
- [17] Cathy O' Neil, Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy , p. 78-89(Crown Books, 2016).
- [18] Novianto, R. & Williams, M-A, "The Role of Attention in Robot Self-Awareness", The 18th IEEE International Symposium on Robot and Human Interactive Communication Toyama, Japan, (Sept. 27- Oct. 2, 2009).
- [19] Ruffo, MdN., "The Robot, a Stranger to Ethics", AISB/IACAP World Congress 2012 - The Machine Question AI Ethics and Moral Responsibility, Birmingham.
- [20] Stevenson, M. T., "Assessing Risk Assessment in Action", 103 Minnesota Law Review 303, 303-384.  
Supra n. 14.
- [21] Sandholm, T., & Noam, B., "Superhuman AI for heads-up no-limit poker: Libratus beats top professionals.", American Association for the Advancement of Science, 418-424.
- [22] 2017 SCC Online 996.
- [23] Chatterjee, S., "Antecedents of behavioral intention impacting human behavior to use IoT enabled devices: An empirical investigation", International Journal of Technology and Human Interaction. Vol. 18 No. 1(2019), Article 4.
- [24] Niti Aayog, Responsible AI #AIForAll, Approach Document for India, Feb. 2021. Available at-<http://efaidnbmnnnibpcajpcglclefindmkaj/https://www.niti.gov.in/sites/default/files/2021-02/Responsible-AI-22022021.pdf>
- [25] AI is being used to identify potential dropout rate in Andhra Pradesh", IndiaAI, 2019; available at-<https://indiaai.gov.in/case-study/ai-is-being-used-to-identify-potential-school-dropout-rate-in-andhrapradesh>.  
Supra n. 22.