Artificial Intelligence as a "Double-Edged Sword": Analysis through the Socio-Legal Viewpoints

Zakaria Hossain Titas[*]
Mahabub Alam Patwary[**]

Abstract: The concept of Artificial Intelligence is not a new one. The groundwork of it began in the early 1990s. However, it became worldwide relevant in 2020 when Open AI introduced GPT-3, which uses deep learning to create code, poetry, and other language writing tasks. This study dives deep into the societal impact and legal vulnerability of artificial intelligence and tries to explore possible solutions to problems like a reduction of creativity, privacy infringements, copyright infringements, academic dishonesty, and reputation degradation arising from it. An eye for an eye ends up making the whole world blind, as stated by Mahatma Gandhi. Artificial intelligence nowadays is forcing us to believe anything that appears on our screen while we are using our eyes. We are being victims of illusions created by advanced technology in our conscious and subconscious states of mind. Technological growth has transformed humanity exponentially to this day, and this growth will not stop in future. It is important to remember that advancements in science and technology shouldn't impede social equilibrium. However, artificial intelligence, on the other hand, made life easier for people. They can now access a wide range of information based on a specific topic. This study is based on the socio-legal perspective of artificial intelligence, and it contains both qualitative and quantitative data, which means it takes the mixed method approach of research study.

Keywords: Artificial Intelligence, Legal, Socio-Legal, Risk to humanity, technology

1. Introduction

Innovation has always been an integral part of human nature. From the dawn of mankind, we started to think creatively in order to make our life easier. Mankind's Hunger for Innovation risen exponentially, after they came across Science and Technology. The advancement of technology in the twenty-first century has given rise to a new level of invention known as artificial intelligence. Although the foundations of artificial intelligence were established prior to the year 2000, they have gained greater significance in the last few years as a result of chatgpt's immediate accessibility to all social classes. With the emergence of fascinating phenomena like various chatbots that are prepared to engage in meandering discussions and the ability to imitate famous voices, artificial intelligence has quickly made its way from

---

[*]Apprentice Lawyer, District and Sessions Judges Court, Dhaka.
[**]Undergraduate Student, Department of Law and Justice, Jatiya Kabi Kazi Nazrul Islam University, Mymensingh, Bangladesh.

computer science textbooks to the general public. However, technology which refers to machines that have been instructed to perform forth intelligent tasks also poses a serious danger to the fortunes of tech companies, entire industries, and society as a whole. Artificial Intelligence can be compared to a double-edged sword, as it presents both immense opportunities and potential risks to society. On the one hand, artificial intelligence has the power to transform a number of industries, increase productivity, and improve decision-making. However, it also brings up issues with algorithmic biases, employment displacement, the moral implications of autonomous systems and many more. This paper acknowledges both the positive and negative outcomes of artificial intelligence. However, it puts more emphasis on the negative aspects. because positive outcomes from technological growth are always expected by society.

1.1 Methodology
Data Collection for this study involves data collected from secondary sources that have been provided with proper references. Credible and prestigious resources like articles, journals, reports, and news publications were used in this paper. The data has been collected based on its relevancy to the research topic, mainly focusing on the broader aspects of artificial intelligence in both a positive and negative sense. In terms of data analysis, the collected data underwent a thorough analysis process that involved identifying key themes and patterns within the existing literature. Through content analysis and critical review, it focused on both the positive and negative consequences of artificial intelligence and suggested possible solutions to the emerging problems due to improper use or misuse of this advanced phenomenon. Limitations include the fact that this socio-legal paper revolves around the data collected from secondary sources and the researcher's source-based critical insight. The absence of primary data can be due to the researcher not having firsthand exposure to something related to artificial intelligence. Moreover, the legal aspects of artificial intelligence discussed in this paper are mainly in the draft stage and will soon be enacted.

2. Impact of Artificial Intelligence on Society
Artificial intelligence is transforming society in various dimensions, carrying substantial consequences for individuals, corporations, and governments. It is transforming daily life, work processes, and interpersonal interactions by streamlining routine tasks and advancing innovative technologies. As AI develops, society must address its potential effects on employment relocation, privacy concerns, algorithmic bias, and overall willingness to ensure that it is developed and applied ethically and positively. The effects of artificial intelligence on society are topics of increasing concern and curiosity. The social, economic, and moral consequences of AI must be recognized and addressed by society as it becomes increasingly common. Artificial intelligence technologies possess the capacity to yield notable societal, economic, and ethical implications. These implications may have immediate impacts on people and groups or may have larger implications for society as a whole. There are worries about the development and deployment of AI-powered autonomous weapons, which could make life-or-death decisions without human intervention. In the long run, there are fears that AI could pose an existential risk to humanity (Krafft et al., 2019). The impact can be summarized by a statistic that a generative AI model named ChatGPT was introduced to the general public in November 2022. It took only 5 days for ChatGPT to reach the 1 million user milestone (Ebert and Louridas, 2023). So, we can well and truly understand the instant impact this new phenomenon had on society.

2.1 Blind Dependability on AI: A Blessings or Curse

Artificial intelligence has grown to be a vital component of modern society, influencing a wide range of sectors including healthcare, education, and transportation. Although integrating AI has clearly produced many advantages and improvements, it also raises questions about how dependable it will be. With more and more jobs being handed off to AI systems, one has to wonder if this over-reliance on AI is good or bad. One positive aspect of AI is its reliability. Several sectors might benefit from the increased accuracy, efficiency, and output that could result from AI systems. They are quite good at quickly analyzing massive datasets, seeing trends and patterns, and making accurate forecasts. Decisions can be better, healthcare can improve, and transportation systems can become safer as a result. However, AI's dependability is also a potential drawback. A growing number of people may come to rely on increasingly advanced AI systems without giving them the time and attention they need to learn their limits and avoid making mistakes. Generally speaking, the growing reliance on artificial intelligence can be viewed as both a blessing and a curse. However, there are hazards of over-reliance and lack of understanding that may potentially be a curse. The benefits of the dependability of AI systems can greatly enhance efficiency, accuracy, and productivity in various industries (Hutter and Hutter, 2021b). But there are also risks that could potentially be troublesome. As artificial intelligence (AI) continues to grow and become increasingly interwoven into our everyday lives, it is imperative that we carefully assess the implications of depending heavily on these technologies and take proper precautions to guarantee that their use is both safe and ethical.

2.2 Status of AI Law Initiatives around the World

The field of artificial intelligence has quickly expanded beyond its scientific roots, entering popular culture and producing amusing byproducts like chatbots that can mimic famous voices and carry-on complex conversations. This fast development of AI has been a game-changer across numerous sectors while posing fresh challenges for existing regulatory and legal systems. Now, governments around the world are attempting to figure out how to embrace the revolutionary power of AI, while also regulating its everyday use and avoiding its worst malpractice.

- **EU AI Act, 2024**

The EU Artificial Intelligence (AI) Act is an EU regulation which entered into force on 2 August 2024 and is directly applicable across the EU (EU Artificial Intelligence (AI) Act, no date). The regulation applies in a phased manner over 36 months from entry into force. It aims to ensure ethical use of AI, protection of people's fundamental rights, health and safety, as well as providing transparency when using AI (European Union Artificial Intelligence Act, 2025). Spanning 180 recitals and 113 Articles, the new law takes a risk-based approach to regulating the entire lifecycle of different types of AI systems (Long awaited EU AI Act becomes law after publication in the EU's Official Journal, 2024). The Act applies equally to uses of AI in the public service as to the private sector. However, it provides exemptions for certain applications of AI relating to national defence; national security; scientific R&D; R&D for AI systems, models; open-sourced models; and personal use (EU Artificial Intelligence (AI) Act, no date b).

- **Japan**

This country has adopted a "soft law" approach to AI regulation. No laws restrict AI use in the country. Japan wants to avoid restricting innovation by waiting to observe how AI evolves. For now, AI developers in Japan have had to rely on adjacent laws such as those relating to data protection.

- **Brazil**

A draft AI law has been made in Brazil after three years of bills that were introduced but not passed. The responsibility for informing users about AI products lies with AI providers, as the law places a priority on users' rights. In addition to the right to know that they are engaging with an AI, users should be able to understand how the AI arrived at a specific conclusion or suggestion. Users have the option to challenge or request human intervention in cases when an AI decision is expected to have a substantial influence on them. This is particularly true in systems involving self-driving cars, hiring, credit evaluation, or biometric identity.

- **Preferences a Third-world Country like Bangladesh can consider while Drafting AI Laws**

It is critical that developing nations like Bangladesh consider particular preferences while drafting AI regulations as they navigate the new area of artificial intelligence. These preferences may include-
I. AI should benefit all classes of people. Therefore, marginalized people's interests should be protected through ethical AI provisions.
II. In a country like Bangladesh, where older people are still not used to the contemporary online use manual and are prone to being victims of online fraud, their situation should be considered while enacting AI law.
III. To provide appropriate measures to tackle deepfakes created by advanced AI technology.
IV. To outline strict penalty provisions, like the EU AI Act,2024, for breaches of provisions that infringe the digital rights of the victim users.
V. When drafting AI law, there shall be a direct interaction between law-enforcing authority and general people through surveys, an aa voting system, or any other equitable way to ensure proper participation of the key stakeholders in the enacted law.

To be more concise, Prioritizing the creation of AI laws that cater to the unique needs of developing countries like Bangladesh is crucial, considering our unique challenges and resources.

3. Findings and Analysis
Artificial Intelligence has become a part of our lives. People of different ages use AI to fulfil their specific purposes. This use can be beneficial or harmful. It can affect people psychologically, socially, legally, or in other ways. A few of the worrisome consequences of AI usage are discussed in the points below.

3.1 Moral Dilemma of Media Utilizing AI
Artificial intelligence is influencing media development, distribution, and audience interaction in the digital age. AI in media improves personalization and efficiency, but it also presents moral problems. An important moral issue regarding the employment of artificial intelligence in the media is the potential of discrimination and bias. In addition, the absence of transparency in the operations of artificial intelligence can make accountability more difficult and raise questions about the dependability and integrity of material produced by the media. Furthermore, the rapid growth of artificial intelligence in the media environment raises issues about the impact that it will have on jobs and the future of journalism. There is a possibility that certain duties will be automated by artificial intelligence technology, which could result in the displacement of journalists and other professionals working in the media.

The responsibility of media organizations and the transparency of artificial intelligence systems are two additional concerns that are of significant moral importance. it is absolutely necessary for media organizations to place an emphasis on morals in the process of developing and implementing AI. Within the context of their utilization of artificial intelligence technology, media companies have the ability to guarantee fairness, transparency, and accountability by adding moral concerns into AI systems.

3.2 The Rapid Rise of Disinformation and Misinformation in the Age of AI
One area where artificial intelligence has dramatically impacted is how information is shared and consumed. Another area where AI presents significant challenges is the underlying aspects of fighting misinformation and fake news. Because of their immense power to alter and amplify content, AI algorithms are finding more and more uses in creating and disseminating disinformation and misinformation. Because of this, a lot of nonsense has gotten out there, which has helped disinformation/ campaigns and made people distrust mainstream media. The potential for this new technology to be used to intentionally spread false information in order to defame individuals gives rise to grave concerns. The usage of AI technologies has increased voter micro-targeting and facilitated the dissemination of disinformation (Bontridder and Poullet, 2021). To stop the spread of false information and ensure the security of data, there is an urgent need to develop strong defenses of regulations as AI grows ahead.

3.3 Deepfakes as a Powerful Tool for Reputation Degradation
The term "deepfakes" refers to a hybrid of the terms "deep learning" and "fake", these are extremely lifelike videos that have been digitally altered to show actors acting in ways that did not actually occur (DeepFakes: Navigating the Information Space in 2023 and beyond, 2024). Deepfakes are videos that use artificial intelligence and facial mapping technologies to imitate a person's speech, inflexions, mannerisms, and facial emotions. They first surfaced in 2017 when a Reddit member shared videos of famous people in explicit circumstances. The rapid dissemination on social media, utilization of real film, and realistic-sounding audio make deepfakes difficult to spot. They prey on online communities where false information spreads like wildfire, such as social media. Deeptrace found 15,000 deepfake videos online in September 2019, nearly doubling in nine months (The Emergence of Deepfake Technology: a review - ProQuest, no date). A stunning 96% were pornographic, including 99% mapping female celebrities' faces onto adult film stars (Sample, 2023). It is also alarming that criminals are also making more and more use of deepfakes to commit financial crimes, such as manipulating the stock and market (DeepFakes: Navigating the Information Space in 2023 and beyond, 2024). For a country like Bangladesh, deepfakes can massively hamper the reputation of renowned persons. Numerous incidents have already taken place in this regard. With newly advanced AI, the creation of deepfakes has become more accurate to the person whose reputation is degraded. So, this problem needs immediate attention from the tech and law enforcement authorities.

3.4 The Underlying Aspects of Use of AI in Education and Literature
Everything has changed with the passage of time, and now we may not be able to use any word to say impossible in this age of modern technology. The buzz word is artificial intelligence, as we all know. There is no field where artificial intelligence is not being used. Naturally, the question arises as to how much artificial intelligence is working in the field of education or what effect it has. Before looking at the use of artificial intelligence in the field of education, if we look at our traditional methods of education, then we can compare how AI is actually affecting it. The traditional education system was a teacher-centered method that

explicitly manifested the supremacy of teachers; in fact, they were the sources of all information outside of the textbooks. There, teachers put more emphasis on children's recitation or memorization. So, it is very natural to understand that the study was limited within certain boundaries. But nowadays, the picture is completely out of the question because of the use of artificial intelligence. Artificial intelligence has created a platform for students where they can become their own teachers. It may sound strange, but some examples will make it clear. Artificial intelligence-powered tools and platforms improve learning experiences by providing personalized information, adjusting to individual needs, and delivering real-time feedback. Chatbots and virtual tutors provide support 24 hours a day, seven days a week, reducing the pressure on instructor bots, who are made in such a way that they can answer any question at any time of the day. These bots are customized in such a way that they can catch any problem of the students and try to solve it. And based on their skills and performances, it can detect on which ground they have a weakness and process through the best possible outcome or review by using the high protocol of its function. As a result, the pressure on the instructors is naturally reduced. Artificial intelligence's contribution to creative thinking is unmatched. For instance, Japan's popular writer Rie Kudan has received one of Japan's most prestigious 'Akutagawa' literary awards. However, after receiving the award, the writer said that he took the help of the much-discussed AI chatbot ChatGPT to write the book. Kudan was awarded the prize for his novel 'The Tokyo Tower of Sympathy' on January 17. Later, in a press conference, the author confirmed that about 5% of his book was written with the help of AI (Anderson, 2024). Although it is good that artificial intelligence helps create literary works, it does have a drawback: AI usually creates everything that already exists, so it can be subject to copyright infringement risks.

3.5 AI as Cause of Rapid Rise of Academic Dishonesty

Since the concept of a "double-edged sword" has already been discussed, it should come as no surprise that every story has an opposite side. It would be better if AI was kept as a supplement along with traditional studies, but the human instinct is to want more after getting something. So, nowadays, students have started to misuse artificial intelligence immensely. They are reluctant to use their intelligence to solve their particular problems. Thus, they use AI to help them with any assignment or work to express their intelligence. As a result, AI is acting as a significant barrier to developing students' creative aspirations. UNESCO predicted that AI in education would be worth $6 billion, and the most recent market research suggests it can be valued at up to $20 billion by 2027 (Malekos, 2024). Critical thinking is an important quality and skill for students that helps them expand their objective learning. As a result, students can solve any objective problem by considering their conscience, as it equips them to analyze information objectively, make rational judgments, and solve problems effectively. However, due to getting ready-mate answers prepared through AI, students are deprived of mental, social, and moral considerations. The expansion of AI in education also raises crucial ethical concerns. There is always a need for more transparency as to where this AI gets its recommendation or how it gets the correct assessment outcome. These include issues of transparency and accountability. Artificial intelligence is often questioned due to transparency and accountability in the education sector. Therefore, it is noticeable that, in some particular cases, dishonesty is appearing through artificial intelligence in the education sector.

4. Recommendations

The rapid growth of artificial intelligence has had profound effects on people around the world. It has created opportunities and deadlocks in specific areas, some of which have been

discussed above. Due to its rising misuse, Preventive measures should be added to its algorithm for better causes.

4.1 Facilitate equitable access to the advantages of artificial intelligence
This recommendation highlights the importance of guaranteeing that marginalized communities can access the advantages of AI. This encompasses the development of educational and training initiatives aimed at equipping individuals with the skills to utilize AI, alongside the establishment of policies that ensure equitable access to AI technologies. By taking this approach, it can bridge the divide between those with resources and those without, ensuring that all individuals have the chance to gain from advancements in AI.

4.2 Implementation of strategies to address the issue of deepfake
Deepfakes represent an advanced application of AI technology to create videos or audio recordings that can distort public perception or spread false information. To tackle this challenge, it is essential for AI developers and policymakers to work together in order to design AI systems capable of identifying and mitigating the production of deepfakes. There can be a designated cyber team which will take immediate action against deepfake video.

4.3 Enactment of Laws regarding Artificial Intelligence
The European Union has already enacted the AI Act to ensure the ethical use of AI, protect people's fundamental rights, health, and safety, and provide transparency when using AI. It is time for a country like Bangladesh to enact an artificial intelligence law to regulate the use of artificial intelligence within the country's territory.

4.4 Promote Public Participation and Consultation
When drafting artificial intelligence regulations, stakeholders, such as general people, tech companies, and governments, should be properly represented. Proper connections among these stakeholders can be very effective in enacting AI regulations.

4.5 Consider Ethical Issues
This recommendation emphasizes the importance of tackling the ethical issues related to AI, including bias, discrimination, and the risk of AI bolstering current social inequalities. The use of AI should be for the betterment of humankind, so it should be ethical at all costs. It should not break the moral standard set by human.

5. Conclusion
Artificial intelligence has been recognized as a revolutionary innovation. A growing number of essential components of people's everyday lives are being developed with the help of artificial intelligence tools. This groundbreaking innovation has been both good and bad for the people who use it for various purposes. Currently, certain individuals are employing artificial intelligence to develop malicious tools for illicit purposes. With artificial intelligence, day-to-day work has become manageable. At the same time, it has become easier to commit petty to serious financial fraud or crime. To tackle these problems, a holistic approach is immediately needed from the proper authority. Furthermore, it possesses the attributes of both an asset and a threat. Artificial Intelligence can empower people and improve many fields, but there are ethical and practical issues to consider. Thus, accurate implementation and control are needed to maximize the benefits of artificial intelligence while minimizing its drawbacks.

References

Krafft, P.M. et al. (2019) 'Policy versus Practice: Conceptions of Artificial Intelligence,' SSRN Electronic Journal [Preprint]. https://doi.org/10.2139/ssrn.3431304 (Accessed: 25 January 2025).

Ebert, C. and Louridas, P. (2023) 'Generative AI for software practitioners,' IEEE Software, 40(4), pp. 30–38. https://doi.org/10.1109/ms.2023.3265877 (Accessed: 25 January 2025).

Hutter, R. and Hutter, M. (2021b) 'Chances and Risks of Artificial Intelligence—A concept of developing and exploiting machine intelligence for future societies,' Applied System Innovation, 4(2), p. 37. https://doi.org/10.3390/asi4020037 (Accessed: 25 January 2025).

EU Artificial Intelligence (AI) Act (no date). https://enterprise.gov.ie/en/what-we-do/innovation-research-development/artificial-intelligence/eu-ai-act/ (Accessed: 25 January 2025).

European Union Artificial Intelligence Act (2025). https://www.deloitte.com/nl/en/services/risk-advisory/analysis/eu-ai-act.html (Accessed: 25 January 2025).

Long awaited EU AI Act becomes law after publication in the EU's Official Journal (2024). https://www.whitecase.com/insight-alert/long-awaited-eu-ai-act-becomes-law-after-publication-eus-official-journal (Accessed: 25 January 2025).

Bontridder, N. and Poullet, Y. (2021) 'THE ROLE OF ARTIFICIAL INTELLIGENCE IN DISINFORMATION,' Preprint [Preprint]. https://www.researchgate.net/publication/349731942 (Accessed: 25 January 2025).

DeepFakes: Navigating the Information Space in 2023 and beyond (2024). https://www.belfercenter.org/publication/deepfakes-navigating-information-space-2023-and-beyond (Accessed: 25 January 2025).

The Emergence of Deepfake Technology: a review - ProQuest (no date). https://www.proquest.com/docview/2329154005?sourcetype=Scholarly%20Journals (Accessed: 25 January 2025).

Sample, I. (2023) 'What are deepfakes – and how can you spot them?' The Guardian, 28 October. https://www.theguardian.com/technology/2020/jan/13/what-are-deepfakes-and-how-can-you-spot-them (Accessed: 25 January 2025).

Anderson, S. (2024) 'ChatGPT helped write this Award-Winning Japanese novel,' Smithsonian Magazine, 24 January. https://www.smithsonianmag.com/smart-news/this-award-winning-japanese-novel-was-written-partly-by-chatgpt-180983641/ (Accessed: 25 January 2025).

Malekos, N. (2024) The rise of artificial intelligence in education: Will A.I. disrupt eLearning? https://www.learnworlds.com/artificial-intelligence-in-education/ (Accessed: 25 January 2025).