**The current and** **future impact of Artificial Intelligence on society**

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**Assess the current and likely future societal impact of artificial intelligence.**

Artificial Intelligence (AI), as elaborated by its name, is the efficient utilization of features and principles of human intelligence artificially so it can apply to machines. Whenever the human brain accesses any data, it goes through several procedures to process these into information that leads the human to perform actions and make decisions. The machines stimulate these processes artificially. Rossi states that artificial intelligence is a discipline applied to machines to perform tasks that require intelligence like humans (Rossi, 2019, p.1). It enables machines to utilize the functions of the human brain artificially. The last decade is considered the era of discoveries and innovations in technology. The growing human needs have provoked the anticipation of machines executing functions like human intelligence. The Advent of Artificial intelligence increased efficiency, mechanization, and automation in every area. Bryson suggests that these technologies have massive impacts on society (Bryson, 2019, p.1). Acemoglu argues that Artificial Intelligence can make huge advancements in the next two decades. The systems facilitated by AI are revolutionizing medicine, the internet, and transportation systems, transforming employment and markets, innovating the manufacturing industries and tools (Acemoglu, 2021, p.1). It can be seen through history that every technology brings some negative impacts on society with itself. McCarthy-Jone's research on negative aspects of AI enlightens that the nature of AI machines to scan human feelings can be a threat to the liberty of someone's personal life (McCarthy-Jones, 2019, p. 1-4). It is empowering the capitalist through the reduction of labor needed in the industry, which eventually causes unemployment. Frank et al. seemingly demonstrate that Artificial Intelligence can be a danger for labor employment because it causes a huge disparity and inequality of employment (Frank et al., 2019, p. 4-5). In this essay, the current, as well as likely future impacts of AI on society have been evaluated on how AI has a negative impact on employment fields that causes inequality; however, AI has positive effects that outweigh its negative on the economy, education, and health care. This article examines the societal impact of artificial intelligence today and in the future, focusing on its applications.

Every technology has its disruptive aspect, and Artificial Intelligence technology has disrupted numerous aspects of current society. It is inducing disparity and inequality in employment. As Bryson claims, the automation in the production floor reduced the number of laborers required; it has increased employment in a technical field like software developments, thus inducing employment inequality. (Bryson, 2019, p. 5). Similarly, Frank et al. argue that the application of artificial intelligence and automation technologies can be disruptive for labor markets (Frank et al., 2019, p. 1). The centuries comprise evidence that proves technology displaced the labor force as mentioned in the above discussion that in the likely future, AI applications are more efficient than human force, which can lead to being replaced by robotics. It is replacing labor with an automatic machine that can threaten unemployment at the global level. It also leads to political polarization. Bryson identifies Political polarization as the lack of cooperation of political parties in democratic governance (Bryson, 2019, p. 5). The utilization of artificial intelligence algorithms to curate content on social media platforms such as YouTube, Facebook, and Twitter induce the polarization in politics by molding the polarizing the intended voters. McCarthy-Jones contends that these negative aspects have deteriorated the liberty of personal thoughts (McCarthy-Jones, 2019, p. 1-4). However, AI has many different factors that can fully develop people's lives in other areas such as the economy, education, and health care. It can be summarized that the massive application can be a threat to employment and democracy.

Although AI has disrupted the employment side, it has revolutionized the world economies. These transform the machine to learn, automate, monitor processes and make decisions accordingly. These beneficial technologies increase efficiency on the production ground by automating the task with lesser cost and time. These technologies enable the machine to monitor the processes of production proficiently. Bryson rightly argues that AI is one of the essential things to thriving businesses (Bryson, 2019, p. 4). AI technologies make it possible to share innovations globally, as innovation of western countries is adopted by eastern countries by sharing ideas through web sources. Similarly, Bryson claims that AI has transformed the mean of accessing knowledge, information, ideas, and research. This access to knowledge benefits society. (Bryson, 2019, p. 4). Any new research can easily be shared over the globe through the internet. It is a simplified and very initial application of AI that is causing the economy's growth worldwide.

There are also complex applications of Artificial intelligence technologies that are increasing online businesses and introducing people to new ways of employment, such as becoming a seller through websites, social media links, and many other opportunities. McCarthy-Jones verified that National security agencies could access even greater volumes of data (McCarthy-Jones, 2019, p. 3). As McCarthy-Jones suggests that machine learning algorithms are enabling the machine to analyze the individuals' behaviors, their likes and dislikes through their surfing history (McCarthy-Jones, 2019, p.1-5). A recommendation system is one application that makes use of a machine learning system.

YouTube software engineers execute machine learning algorithms to analyze the interests of visitors and preferences through their watch history. The analysis results were further utilized to recommend the videos of visitor interest (McCarthy-Jones, 2019, p. 1-5). The videos contain ads according to their preferences. The whole procedure allows the visitor to become attracted to the product and shop it online or physically. The person who is uploading the video with a specific amount of traffic also received a specific amount. Direct or indirectly, AI applications induce new means of employment. The integration of robotics for adapting and making human-like decisions more accurately is ongoing. It has the potential to achieve great things in the future, as Acemoglu argues in his study that in the future, the workers and robotics collaboratively can perform an integrated and complex task. It would be possible to enhance accuracy and precision with more products than ever (Acemoglu, 2021, p. 5-6). It can be hoped that the future is full of exciting discoveries of AI in every field.

AI's influence on job automation is enormous. AI-powered robots are being used in industry and medicine. These robots can package, sort, and help with operations. New technologies can boost productivity and efficiency but also increase economic inequality and reduce job prospects. Autonomous systems use artificial intelligence algorithms to evaluate their surroundings and make smart decisions. These devices may minimize road deaths and accidents, but they raise problems about accountability and guilt in a crash. Healthcare is another industry where AI is being used, and it has the potential to change diagnosis and treatment completely. AI algorithms may analyze huge volumes of medical data to find trends and make predictions, which paves the way for earlier illness identification and better treatment strategies (Acemoglu, 2021, p. 5-6). Additionally, AI-enabled medical gadgets, such as sensors that monitor vital signs, may provide patients with more individualized and proactive healthcare. However, the application of AI in healthcare also raises questions about data privacy and the possibility of biases in algorithmic judgment.

AI is being used in education to customize instruction and enhance student results. AI systems may examine student data to find areas of weakness and provide specialized treatments to assist pupils' progress. Chatbots and virtual tutors, both AI-powered instructional tools, can give students extra help and direction. Although these technologies could lead to better learning results, they also pose issues with data privacy and the possibility of a classroom that relies too much on technology. AI is also employed in finance to automate risk assessment and fraud detection processes. Financial organizations can more easily spot fraudulent conduct because AI systems can examine enormous volumes of financial data to spot trends and abnormalities. Trading has become more effective and lucrative because of AI-powered trading algorithms' ability to make real-time judgments based on market data (Acemoglu, 2021, p. 5-6). AI in finance also raises questions about possible biases in algorithmic decision-making and a rise in financial instability.

It is not only benefiting economies, but also its innovations revolutionize the area of education. Artificial Intelligence technologies penetrated the realms of education enormously. It introduces automation procedures for teachers and students. Surprisingly, Acemoglu argues that AI facilitates the teacher to evaluate students' scores and automate their teaching (Acemoglu, 2021, p. 4). For example, automated grading facilitates the teacher by automatic grading of a student by the computer system itself. It enables teachers to adapt as Acemoglu suggests that teachers can learn diverse teaching methods according to the different requirements of students. Thus, transforming the teaching most effective and adaptive than ever (Acemoglu, 2021, p. 5-7). It increases teaching efficiency by making the teaching more adaptive. The future of AI applications in education can be enormous. The advent of Robotic teaching can be efficient for the students. Acemoglu contends that robots will likely be programmed in a way that will be able to adapt the method to teach students according to their learning ability (Frank et al., 2019, p. 6531-6533). It can exclude the difficulties students face in adapting the insights of subjects. AI has helped the education sector by facilitating the learning procedure by giving teachers more time to prepare and provide the student with various sources.

As it is doing wonders for education and economies, it is also heralding advancement in medical sciences by introducing different automatic processes for treating diseases. As Kerasidou argues in their study that artificial intelligence technologies innovate the medical sciences that benefit the health care of patients (Kerasidoua, 2021, p. 245-246). It facilitated both the patient and medical staff as well by making the diagnosis and treatment process more accurate (Kerasidoua, 2021, p. 245-246). Acemoglu claims in the likely future that the AI application will be able to develop real-time and virtual services to patients by the medical staff. The condition is basically the same in healthcare services, albeit this field has now seen a huge AI venture so far; nonetheless, there have been not many endeavors to utilize AI to give new, constant, versatile administrations to patients by doctors, nurses, and technicians. Intelligent systems can enormously work with human learning and guidance in many occupations and fields by making them versatile, and the equivalent is the situation with health experts (Acemoglu, 2021, p. 6). Artificial intelligence has created a disparity in job inequality. However, it is advancing its hold in all fields of life from economics, education, and healthcare.

It can be concluded from the above-discussed aspects of AI application that it is dominantly influencing employment issues, economy, educational departments, and medical sciences grounds positively. It is also transmitting some disruptive impacts on society. As it distorted the labor industry and induced inequality in employment, it also has opportunities to revolutionize the world with machine learning algorithms that can develop people's life magnificently. The future impacts of AI applications can enormously revolutionize the world but can potentially deteriorate labor power as there is a hidden relationship between political polarization and income disparity. More research is needed to find the ways for the effective application of AI without its adverse impacts.

The precautionary measure can be included to educate the laborers and develop their skills according to the requirements. The researchers should find the best possible ways of collaborating with the human force and AI technologies to gain a massive result; this can be done by aiding software developers, programmers, and scientists financially to do research. The societal ramifications of artificial intelligence are intricate and diverse; however, it is evident that AI will persist in molding and transforming the global landscape in significant manners. As we progress, it is imperative to meticulously contemplate the prospective advantages and disadvantages of AI implementations, and to guarantee that these technologies are formulated and implemented in a manner that is impartial, conscientious, and advantageous for all constituents of the community.

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