

Intelligence and Its Impact on Society

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Abstract

The present study aims to investigate the phenomenon under examination in a comprehensive and systematic manner. This article discusses the utilization of artificial intelligence across many industries and its impacts on society, encompassing both advantageous and disadvantageous aspects. Artificial intelligence (AI) plays a significant role in the healthcare sector by aiding in the management of healthcare services, facilitating early diagnosis, enhancing documentation processes, and enabling robotic surgery. Artificial intelligence (AI) in the realm of education offers sophisticated instructional methodologies to students through the utilization of data mining techniques, intelligent teaching platforms, and personalized learning systems. The positive outcomes of artificial intelligence include enhanced productivity, amplified revenue generation, employment creation, and mitigation of human mistakes. Artificial intelligence (AI) engenders both advantageous and detrimental consequences. The adverse consequences of artificial intelligence encompass workforce downsizing, labor market contractions, concerns regarding privacy protection, and disparities. Hence, it is imperative that the development of artificial intelligence adheres to ethical principles and serves as an asset to society.

Keyword

Artificial Intelligence, Impact, Society.

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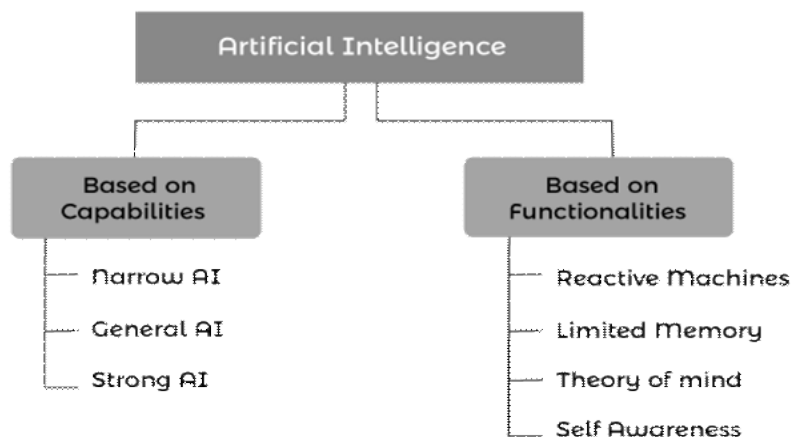
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Introduction

Artificial intelligence (AI) refers to the technological field wherein a computer or a computer-controlled robot can execute jobs typically carried out by humans, necessitating human-like intelligence and reasoning. While it is true that not all functions performed by an average person can be replicated by an AI, there are particular tasks in which some AIs have demonstrated the ability to match or even surpass human performance. The prevalence of artificial intelligence (AI) in contemporary society has experienced a notable surge (Benko & Lányi, 2009). Hence, artificial intelligence plays a significant role in various aspects of our lives, encompassing personal assistants, voice recognition, health services, language translations, suggestion systems, navigation, autonomous vehicles, social security, e-commerce, financial services, cyber security, social media, content control, and useful robot applications (Benko & Lányi, 2009). The advent of artificial intelligence technology has emerged as a significant innovation within the contemporary era characterised by rapid technological advancements and widespread use. Artificial intelligence (AI) can be likened to a sophisticated human brain, and its optimal utilization has significantly contributed to societal transformations. This essay elucidates three aspects of the societal impact of artificial intelligence: the diverse uses of artificial intelligence across numerous sectors, as well as its good and bad ramifications on society.



Literature Review

Artificial intelligence (AI) is presently undertaking various jobs that were traditionally executed by humans, including voice recognition, health services, autonomous vehicles, e-commerce, financial services, and content control (Haenlein

& Kaplan, 2019). Artificial intelligence (AI) is progressively emerging as a pervasive technology throughout society, assuming roles that were conventionally fulfilled by human beings. The exploration of potential applications of artificial intelligence (AI) in several areas, such as healthcare, banking, and education, has garnered substantial attention in academic research and literature in recent years (Balciolu, Artar, & ErdiL, 2022). Furthermore, the examination of the societal implications of these applications has also been a prominent focus of scholarly investigation. The application of artificial intelligence (AI) in the healthcare sector has been leveraged to support various aspects of healthcare administration, including disease diagnosis at early stages, efficient management of medical records, and the implementation of robotic surgical procedures (Haenlein and Kaplan, 2019). Based on existing research, it has been suggested that the implementation of artificial intelligence in several healthcare domains, including electronic health record systems and natural language processing, has the potential to improve healthcare services. Notably, these applications may contribute to the reduction of waiting times and the standardization of ambulance transit times (McCarthy t.y.). Furthermore, it should be noted that these programs can conserve resources. In addition, there has been a growing interest in the use of artificial intelligence (AI)-assisted robotic surgery technologies, exemplified by the Da Vinci Surgical System, which has the promise of transforming surgical procedures (Danesh and Ghavidel, 2020). Artificial intelligence (AI) has exerted a substantial impact on the financial sector, specifically within the domains of market analysis, mobile banking, and digital payment mechanisms. The impact of artificial intelligence (AI) on the advancement of financial technology (FinTech), encompassing innovations like mobile payment solutions, money transfers, and digital wallets, has been thoroughly examined and recorded in scholarly literature (Jaki & Marinè, 2019). Within the realm of education, the utilization of artificial intelligence has facilitated the emergence of several novel prospects, such as data mining, intelligent pedagogical platforms, and personalized learning (Chen, Chen, & Lin, 2020). Intelligent instructional systems represent a prominent category of artificial intelligence (AI) applications that find extensive use within the field of education. These systems offer an educational platform that is tailored to the specific proficiency level of each student. The research underscores the potential benefits of artificial intelligence (AI), including enhanced production and revenue, the creation of new job opportunities, and the reduction of human errors. However, it also sheds light on the challenges associated with the integration of AI into society. The study underscores both the potential advantages and disadvantages of artificial intelligence. Some of the primary concerns revolve around the potential job displacements

resulting from the implementation of artificial intelligence (AI), the disruptions it may cause in the labor market, the potential infringement on individuals' privacy rights, and the perpetuation of economic and gender-based inequalities. Research indicates that the development of artificial intelligence technology necessitates adherence to ethical frameworks, with a focus on addressing societal issues. In summary, the existing body of study pertaining to artificial intelligence encompasses a diverse range of applications across multiple domains. Moreover, it extensively examines the potential societal implications of artificial intelligence, encompassing both favorable and unfavorable outcomes.

The existing body of research in this domain indicates that the development and utilization of artificial intelligence technology should be approached with a sense of responsibility, aiming to optimize its benefits while mitigating potential adverse consequences.

Result and Discussion

Artificial intelligence (AI) has found widespread applications across diverse industry sectors, contributing to significant advancements in numerous professional domains. The increasing older population necessitates the presence of healthcare staff in the context of artificial intelligence (AI) implementation within the healthcare industry. It is imperative to acquire adequate resources to effectively recruit and employ healthcare professionals. The utilization of rational technology has become imperative to address the need for healthcare services within the constraints of restricted resources. Artificial intelligence is additionally employed in the domain of general health management. The collection of data related to heart rate can be represented as a sample in the context of the Mental Health and Recovery Services (MHRS) field. Hospital admissions can be facilitated by utilizing various data, such as reducing waiting times in emergency services, standardizing ambulance transportation times, and enabling parents to effectively monitor the immunization status of their infants and children. The application domains of artificial intelligence (AI) in the administration of documentation can be delineated as follows: through the utilization of electronic health record systems, it becomes feasible to systematically arrange, securely store, and effectively recycle the information pertaining to healthcare practitioners. The utilization of Natural Language Processing (NLP) techniques enable medical practitioners and healthcare experts to expedite the transcription process of voice recordings. By leveraging artificial intelligence (AI)-powered applications, reports can be generated in a much-reduced timeframe. Furthermore, it is worth noting that artificial intelligence finds application in various domains, including documentation management. Electronic health record (EHR)

systems facilitate the organization, storage, and reuse of health professionals' information. The application domains of artificial intelligence (AI) in documentation management can be delineated as follows: EHR systems enable the organization, storage, and reuse of health professionals' information. With the use of NLP (Natural Language Processing) tools, doctors and health professionals can take voice recordings and reports can be printed in a much quicker period with artificial intelligence-based applications. Thirdly, the utilization of artificial intelligence (AI) in the realm of early detection and emergency interventions, notably in the context of cancer disorders, holds significant importance. Early detection of diseases is of utmost significance, as it allows for timely diagnosis and intervention before the manifestation of overt symptoms in patients. Several artificial intelligence algorithms are employed for the purpose of early disease prediction. Early diagnosis is crucial for Parkinson's disease. The study employed EEG signals, visual simulations, and PDC data within the field of artificial intelligence to discern between persons who are unwell and require medication, and those who are in good health. The latter refers to the application of artificial intelligence in the field of robotic surgery. Currently, the utilization of this technology has commenced in a limited number of healthcare facilities.

Furthermore, users have access to several e-banking applications, including the Internet, mobile phones, and kiosks. Fintech, short for financial technology, represents the convergence of financial and commercial domains. The advancements introduced by technology. The field of financial technology (fintech) has exerted a significant impact on various technological advancements, including diverse domains such as mobile payment solutions and money transfer activities. The Card Verification Code (CVV) is a technological advancement developed by financial institutions to enhance the security of customer-issued cards. It is an acronym derived from the term Card Validation Value. The code has three numerical digits and is exclusively associated with Mastercard and Visa cards. Numerous smartphone applications, including PayPal, Apple Pay, Google Pay, Samsung Pay, Alipay, Skrill, Google Wallet, and Master Pass, possess the capability to facilitate digital payment transactions. Users could store their card details in the digital wallet provided by these services, facilitating convenient financial transactions within those applications. When examining the current state of artificial intelligence research in the field of education, several applications may be observed. These applications encompass not just knowledge-based artificial intelligence, but also data-driven and logic-based approaches. Furthermore, artificial intelligence is being utilized across a wide range of domains. The applications encompass personalized education or dialogue

education systems, exploratory education, data mining in education, analysis of students' articles, smart agents, chatbots, education for children with special needs, child-robot interaction, artificial intelligence-based assessment systems, and automatic test creation systems. Intelligent instructional systems, which are extensively employed in computer-assisted teaching, represent one of the most prevalent uses of artificial intelligence within the field of education. The platform provides a sequential instructional framework that caters to the individual proficiency of each student, typically focusing on subjects characterized by a numerical framework, such as intelligent instructional systems, mathematics, or physics. The scholar system is widely recognized as the pioneering and most renowned intelligent teaching approach. This system establishes a framework that enables personalized responses to students' answers through the utilization of fundamental artificial intelligence techniques.

Artificial intelligence (AI) confers numerous advantages onto society, foremost among them being the enhancement of production and efficiency through the automation of routine tasks, mitigation of human fallibility, and optimization of resource allocation. One advantage is the potential for producing revenue within the technology industry. The adoption of artificial intelligence technology on a large scale is expected to contribute to the financial growth of organizations that invest in and conduct research in this field. Furthermore, an examination of the labor market reveals the beneficial impacts associated with this phenomenon. The expanding application domains of artificial intelligence have led to the delegation of certain or even entire workloads to machines. While there is a concern regarding potential job displacement, artificial intelligence (AI) holds promise in various areas, including the creation of novel work positions, facilitating innovation, and enhancing human capabilities. Ultimately, artificial intelligence contributes to a heightened level of safety by mitigating errors caused by human intervention. Road safety can be cited as an illustrative instance of this phenomenon. Artificial intelligence plays a significant role in enhancing transport safety using optional solutions that effectively improve road safety. Despite the numerous advantages associated with artificial intelligence (AI), it is important to acknowledge that this technology also poses certain problems and drawbacks. Initially, it is necessary to discuss the occurrence of layoffs and the subsequent disruption they cause within the labor market. In their study, Frey and Osborne (2017) analyzed the potential advancements of emerging information technologies in the immediate future. The researchers concluded that implementing such measures would pose a substantial threat to a considerable portion of the workforce across many professions. It is well acknowledged that individuals

who face the greatest challenges in securing employment are those belonging to the demographic of young individuals with limited educational attainment. It is anticipated that individuals with lower levels of education will possess comparatively limited technical abilities, resulting in increased challenges within the labor market in the future. Inexperienced societies that have recently entered the labor market will have challenges as they endeavor to identify and address potential issues that may arise in the future. Consequently, the influence of artificial intelligence (AI) on the labor market has the potential to impede the generation of income for younger populations and individuals with limited educational attainment, particularly in regions where automation is feasible. Furthermore, the impact of artificial intelligence on privacy is a significant concern. Privacy is a fundamental human right. To uphold the dignity and individuality of individuals, it is imperative to ensure the preservation of their privacy. In the process of developing and deploying artificial intelligence applications, it is imperative to uphold and safeguard the fundamental rights and freedoms of persons, ensuring that their rights are not infringed upon. The utilization of personal information is on the rise due to advancements in artificial intelligence technologies. During a transaction, the ownership of information, transaction data, papers, and other relevant materials lies with the parties involved in carrying out the transaction. The act of safeguarding data from unauthorized access or disclosure by individuals or organizations is commonly referred to as confidentiality. When developing artificial intelligence systems for implementation in social services, it is imperative to prioritize the safeguarding of user privacy and personal information. For instance, the incorporation of security cameras within our household, which will oversee all areas of the residence, will inevitably encroach upon an individual's personal sphere. The preservation of confidentiality about the credentials inputted into artificial intelligence systems is important. The personal information contained in our identity card includes details such as gender identity, country, and identity number. To mitigate privacy violations and the abuse of sensitive information, it is imperative to implement robust data protection programs and enforce stringent restrictions. Artificial intelligence has the potential to perpetuate societal inequality. The manifestation of gender-based inequality is evident within the realm of technology, encompassing the domain of artificial intelligence. The representation of women in this field is lower compared to men. Given that the data now utilized by computers contains components that perpetuate gender discrimination, it follows that the outcomes produced by artificial intelligence applications may inadvertently expose and perpetuate inequities. In addition to the issue of gender-based inequality, it is necessary to discuss the matter of economic disparity. The issue of income

generation within the labor market, which is additionally impacted by artificial intelligence, will also contribute to economic inequality. This is due to the potential challenges in income generation faced by certain segments of the population, while simultaneously augmenting the income of artificial intelligence technology proprietors. Consequently, it is imperative for AI technologies to prioritize the establishment of a future that adheres to core ethical standards, aiming to derive conclusions and promote fairness within the labor market, while upholding concepts of equality and justice on a national scale.

Conclusion

The advancements in artificial intelligence have led to a significant technological revolution.

Furthermore, advancements in technology have proven advantageous to society through the development of diverse applications tailored to various sectors. The utilization of artificial intelligence (AI) has resulted in a multitude of good outcomes, including enhanced productivity and efficiency, amplified revenue generation for enterprises employing AI technology, the emergence of novel job positions, stimulation of creativity, and a decrease in instances of human mistake. However, it is important to address several obstacles that arise, including but not limited to layoffs, interruptions in the labor market, concerns over privacy, and issues pertaining to gender-based and economic inequality. The development of AI technologies necessitates adherence to ethical principles and the consideration of social implications.

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