

A Study of Boom in Artificial Intelligence

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Abstract

Nowadays, AI is one of the most important branch in computer science in which computer has to ability to think and learn. It applies logical based techniques through different types of machine learning to take automatic decision and also take automatic actions which is feed by human beings. One of the most prevalent and rapidly developing technologies today is AI. In this technology we use to develop intelligence in machines to perform difficult and various kinds of tasks. Those machine which can communicate like human beings instead the guidance of human is considered as "Intelligent Machine". The human efforts are reduced by this technology. Many industries are utilising this technology to help people build their own businesses.. AI reduces human efforts .AI also increases the speed of work. A human being cannot perform multiple task at a time, but AI can handle this. So, this research paper aims at how humans with the help of AI can become a multitasked, save more time and energy and accomplish their work efficiently and effectively.

Keywords: Artificial Intelligence, machine learning, human efforts, boom, efficiency and effectiveness, human expertise, various factors.

INTRODUCTION

"Artificial intelligence" is made up of the words "artificial" and "intelligence," where "artificial" denotes "man-made" and "intelligent" denotes "thinking power." The study of intelligent computers capable of carrying out tasks that ordinarily require human intelligence is the goal of the vast and quickly developing discipline of computer science known as artificial intelligence (AI). Artificial intelligence (AI) systems are designed to mimic human cognitive functions as perception, problem-solving, learning, and decision-making. In recent years, AI has attracted a lot of interest and developed into a driving force behind technological developments due to its potential to alter a variety of businesses and domains [1].

At its core, AI is built upon the principle of creating intelligent machines that can process and interpret vast amounts of data, identify patterns, and make informed decisions. A variety of methods, including machine learning, natural language processing, computer vision, and robotics, are combined to achieve this. Let's examine these fundamental AI elements in more detail [2].

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Despite its enormous potential, AI also poses ethical questions about things like privacy, bias, and job loss. It is essential to ethically create and implement AI systems, assuring accountability, justice, and openness [3].

In conclusion, artificial intelligence is a fast developing field that seeks to create intelligent computers with cognitive and intellectual capabilities comparable to those of humans. AI has the potential to change how we work and live thanks to its applications in a variety of industries. As AI continues to evolve, careful consideration must be given to ethical guidelines [4].

OBJECTIVE

- Artificial intelligence is a boon or bane
- Advantages of artificial intelligence in our life
- Limitation of artificial intelligence.

Artificial intelligence reduces human error in various kinds of fields and it one of the most growing field of computer science and it also contributing a major role in many of the companies. Compared to human labor AI can perform tasks in a well manner and in a very few time.

While on the other side it also has disadvantages like by using it humans are becoming fully dependent on this and many AI sources took lots of jobs so this can be said that it has both the faces like a coin.

ADVANTAGES OF AI IN VARIOUS SECTORS**Financial and Banking Sector**

In the Banking, Financial Services and Insurance (BFSI) industry, artificial intelligence (AI) technology is used to manage a variety of functions, including stock investing, financial operations, and much more. Utilising AI technology can help the bank provide customers with better services and hassle-free banking solutions [5]. Because they provide a significant return on investment in terms of cost savings, chatbots are one of the AI applications that organisations employ the most.

Healthcare

In the realm of medical science, AI technology is widely used and has several benefits. Artificial intelligence (AI) technology is used in analytics, research, and the development of personal health assistants [6]. Customer support bots have been developed. To schedule appointments with round-the-clock support, hospitals employ this system. Image processing with artificial intelligence is beneficial for a variety of uses, including X-ray imaging, PET scanning, UV imaging, medical CT, and cancer cell image processing.

Cyber Security

The main purpose of artificial intelligence is to improve cyber security measures. It works by using data from previous threats and identifying patterns and indicators that appear to foretell and thwart attacks. In addition to blocking external attacks, AI may detect internal threats or breaches and provide corrective steps, preventing data theft or abuse [7].

Your security efforts can be prioritised more effectively based on what is more likely to attack your systems rather than just what could be utilised to do so thanks to AI-based cyber security solutions that can provide you with the most recent information on global and sector-specific threats [8].

Gaming and Entertainment

Artificial intelligence is crucial to streaming applications because it lets them provide personalised content recommendations based on how a user interacts with different types of media. These apps make use of AI to sort through the ever-expanding user data to offer personalised music, movie, and TV series catalogues [9].

Artificial intelligence advancements in gaming have focused on providing the player with more engaging challenges rather than analysing the player's thoughts [10].

Some of these gaming programmes use virtual reality (VR) headsets to deliver Cognitive Behavioural Therapy (CBT) for better patient engagement. By assisting them in changing to the player's actions based on inputs that have been assessed, AI aids these games as they mature.

Security and Surveillance

A human cannot possibly continually monitor many CCTV network monitors at once. We felt motivated to automate these monitoring operations and improve them using machine learning methods as a result.

As AI video monitoring software effectively manages the ongoing monitoring and detecting component of surveillance, human observers can now concentrate on validating information and responding to urgent situations.. At first glance, one may question the necessity of artificial intelligence when humans can seemingly perform these tasks effortlessly. However, the remarkable advantage of AI lies in its ability to identify anomalous behavior that may go unnoticed by human eyes, highlighting the crucial role it plays in enhancing surveillance effectiveness and ensuring comprehensive threat detection capabilities.

Government buildings, as well as other vulnerable high-risk public spaces, employ advanced surveillance systems that leverage cutting-edge AI-based facial recognition technologies. These state-of-the-art systems represent a significant advancement in the field of security, as they go beyond traditional surveillance methods to provide an additional layer of protection and threat detection.. Liberal countries are currently working to reduce the likelihood of privacy violations brought on by AI spies. The ultimate goal is to achieve a delicate balance between the requirement for security and each person's right to privacy. Liberal democracies are committed to finding solutions that leverage the benefits of AI-driven surveillance while mitigating potential privacy risks. By continuously refining surveillance methods, enhancing privacy protection measures, and involving the public in decision-making processes, these countries strive to create a framework that promotes both security and respect for individual privacy.

Internet of Things (IoT)

The Internet of Things (IoT) and AI's confluence opens up a wide range of possibilities for the development of smarter household appliances that require little to no human involvement. AI helps IoT devices learn from data, whereas IoT is concerned with devices connecting with the internet.

In order to fully utilise the data that IoT devices' sensor-based data collection has to provide, artificial intelligence is crucial the ability of IoT devices to respond to human stimuli and requirements is improved through learning from this data over several iterations.

Artificial intelligence (AI) is the force behind the rapid growth of technology. Artificial intelligence plays a critical role in the modern world because it has already improved the daily lives of ordinary people. Future job growth in the field of artificial intelligence may make it very profitable.

Enrol in an artificial intelligence course in Bangalore to advance your profession in this cutthroat environment.

DRAWBACKS OF AI

While artificial intelligence (AI) holds immense promise and potential, it also presents certain drawbacks and challenges that need to be carefully addressed. Here are some of the key drawbacks of AI:

- Higher expenses are involved due to machine complexity;
- Since AI automates many operations, it has led to a rise in smart device addiction and laziness among people;
- AI can readily perform repetitive and laborious tasks and has already displaced human labour. Process automation in industry, for instance. AI is now unable to recreate human emotions and connections, which are crucial for teamwork. AI and machines are trained to accomplish specific jobs, so it may take some time before they innovate in this area.

Data Privacy and Security: AI relies heavily on data, often requiring access to large volumes of personal and sensitive information. Ensuring the privacy and security of this data becomes paramount, as any breaches or misuse can have severe consequences, including identity theft, unauthorized surveillance, or manipulation of personal information.

Bias and Discrimination: The unbiasedness of AI systems depends on the data they are trained on. Artificial intelligence (AI) systems can reinforce and exacerbate biases if the training data is biased or reflects societal prejudices. This may have discriminatory effects in the hiring, lending, and criminal justice systems, furthering social injustices.

CONCLUSION

Artificial intelligence (AI) has been one of the most highly debated topics in the twenty-first century. It has been touted as a ground-breaking technological advancement that could transform how we live, work, and play. However, it has also drawn criticism for its ability to eliminate jobs, establish a surveillance state, and perhaps cause mankind to go extinct. So, is AI beneficial or harmful?

On the one hand, AI has the ability to transform sectors and offer answers to some of the most important issues facing the planet. For instance, AI can be used to create medical advancements, automate menial activities, and even improve the safety and effectiveness of automobiles and other vehicles. AI can also assist us in better understanding the world and generating more.

REFERENCES

1. What is Artificial Intelligence (AI)? Tutorial, Meaning - Javatpoint [Internet]. www.javatpoint.com. 2022 [cited 2023 Jul 15]. Available from: <https://www.javatpoint.com/artificial-intelligence-ai>
2. Liu V, Wright JR, White M. Exploiting Action Impact Regularity and Exogenous State Variables for Offline Reinforcement Learning. *Journal of Artificial Intelligence Research*. 2023 May 11;77:71-101.
3. IJRASET [Internet]. Ijaset.com. 2013 [cited 2023 Jul 15]. Available from: <https://www.ijraset.com/>
4. Ahmadi M, Jafarzadeh-Ghouschi S, Taghizadeh R, Sharifi A. Presentation of a new hybrid approach for forecasting economic growth using artificial intelligence approaches. *Neural Computing and Applications*. 2019 Dec;31:8661-80.
5. Nakata N. Recent technical development of artificial intelligence for diagnostic medical imaging. *Japanese journal of radiology*. 2019 Feb 20;37:103-8.
6. Ayres LB, Gomez FJ, Linton JR, Silva MF, Garcia CD. Taking the leap between analytical chemistry and artificial intelligence: A tutorial review. *Analytica Chimica Acta*. 2021 May 29;1161:338403.
7. Qian Y, Liu J, Shi L, Forrest JY, Yang Z. Can artificial intelligence improve green economic growth? Evidence from China. *Environmental Science and Pollution Research*. 2023 Feb;30(6):16418-37.
8. Makridis CA, Mishra S. Artificial intelligence as a service, economic growth, and well-being. *Journal of Service Research*. 2022 Nov;25(4):505-20.
9. Norvig PR, Intelligence SA. A modern approach. Prentice Hall Upper Saddle River, NJ, USA: Rani, M., Nayak, R., & Vyas, OP (2015). An ontology-based adaptive personalized e-learning system, assisted by software agents on cloud storage. *Knowledge-Based Systems*. 2002;90:33-48.
10. Norvig PR, Intelligence SA. A modern approach. Prentice Hall Upper Saddle River, NJ, USA: Rani, M., Nayak, R., & Vyas, OP (2015). An ontology-based adaptive personalized e-learning system, assisted by software agents on cloud storage. *Knowledge-Based Systems*. 2002;90:33-48.