Artificial Intelligence: The Future

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Artificial Intelligence: The Future

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Abstract

Artificial intelligence is the intelligence of machines or software, as opposed to the intelligence of humans or animals. It is also the field of study in computer science that develops and studies intelligent machines. "AI" may also refer to the machines themselves. AI is not a new for the scientist, it was introduce in 1943 with artificial neurons model and get popular in 1950 due to "Turting test" the test was done to get answer that machine can think?, purposed by Alan Turing. Basically AI is categorized into three types, Artificial Narrow Intelligence, Artificial General Intelligence and Artificial Super Intelligence. Deep learning and machine learning is major subfield of Artificial intelligence. DL as a subset of ML, which is also another subset of AI. Therefore, AI is the all-encompassing concept that initially erupted. Application of AI fields are Healthcare, Business, Education, Agriculture, Finance, Law, Entertainment and media, Software coding and IT processes, Security, Manufacturing, Banking and Transportation. In reference to Job creation or distraction, Artificial Intelligence is not job killer but a job category killer". In the latest report (May 2023) on The Future of Jobs, the World Economic Forum (WEF) predicts the creation of 69 million jobs by 2027 thanks to AI, but also the destruction of 89 million jobs. In context to intelligence level, Jan. 2022, Age of IQ level of AI was as 7 year Children and in Dec. 2022, Age of IQ level of AI was as 9 year Children. India is emerging market in global and it has around 12 % of work could be automated by AI. In India more than 2000 startup are related to AI and 90000 plus AI Professional work in India.The economic impact of AI, for select G20 countries and estimates AI to boost India's annual growth rate by 1.3 percentage points by 2035. AI has potential to add 1 trillion to India's economy in 2035. We are going to enter into new technological world, it's may be our fortune or misfortune.

Key Words: - *Artificial Intelligence, Machine learning, Job, India*

Introduction

Artificial intelligence (AI) is not a new concept. It was started in 1642 with first mechanical calculating machine, which was built by French mathematician Blaise Pascal. Modern artificial intelligence began in the 1950s with the view to solving complex mathematical problems and creating 'thinking machines'. There were two conflicting strategies from the beginning. One method was Good Old-Fashioned Artificial Intelligence (GOFAI), it was based on logical classical symbolic AIand second was Artificial Neural Network (ANN) and it is based on a collection of connected units or nodes called artificial neurons, which loosely model the neurons in a biological brain.

John McCarthy coined the term Artificial Intelligence in 1955.Artificial intelligence is the intelligence of machines or software, as opposed to the intelligence of humans or animals. It is also the field of study in computer science that develops and studies intelligent machines. "AI" may also refer to the machines themselves.

Types of Artificial Intelligence

On the basis of intelligence level, it was categorized into three categories

   I.   Artificial Narrow Intelligence (ANI)
  II.   Artificial General Intelligence (AGI)
 III.   Artificial Super Intelligence (ASI)

Major Sub Fields of AI

1. **Cognitive Computing:** Cognitive computing mimic the human brain by analysing text, speech, images in the way a human would do and try to give the desired result.
2. **Machine Learning (ML):** Itteaches a machine how to make decisions based on past experience.
3. **Neural Networks:** Neural Networks tries to recognize relationships in a data set through a process that mimics how the human brain works.
4. **Computer Vision**: Computer vision helps in uunderstandings an image by decomposing it and studying different parts of objects.
5. **Deep Learning**: It mimics the functioning of the human brain in data processing and creating models for their use in decision making.
6. **Natural Language Processing**:Natural language processing is ascience of reading, understanding, interpreting a language by a machine, means it focuses on the interaction between computers and humans through natural language.

Application of AI

Artificial Intelligence (AI) has a wide range of applications across various industries.The following are a few notable and popular applications of AI in the modern world.

1. **Virtual Personal Assistants:** Virtual assistants like Siri, Google Assistant, and Alexa use AI to understand and respond to user commands, helping with tasks such as setting reminders, answering questions, and providing recommendations.

2. **Recommendation Systems:** AI algorithms are used to analyze user preferences and behaviors to recommend products, services, or content. Examples include Netflix's recommendation system and product recommendations on e-commerce platforms.

3. **Image and Speech Recognition:** AI is used to analyze and interpret visual and auditory data. This includes facial recognition systems, speech-to-text applications, and image recognition in medical diagnostics, security, and autonomous vehicles.

4. **Healthcare Diagnosis and Predictive Analytics:** AI is employed to analyze medical data, assist in diagnostics, and predict patient outcomes. Machine learning models can help identify patterns in large datasets to improve medical decision-making.

5. **Autonomous Vehicles:** AI is a crucial component in the development of self-driving cars. It involves complex algorithms for navigation, obstacle detection, and decision-making, enhancing the safety and efficiency of transportation.

6. **Financial Fraud Detection:** AI is used in the financial industry to detect fraudulent activities by analyzing patterns and anomalies in transactions. It helps in identifying and preventing unauthorized transactions.

7. **Robotics:** AI plays a significant role in robotics, enabling robots to perform tasks autonomously. This is used in manufacturing, logistics, healthcare, and exploration.

8. **Gaming:** AI is employed in the gaming industry for creating intelligent virtual opponents, adaptive game scenarios, and realistic simulations.

9. **Cyber security:** AI helps in identifying and preventing cyber threats by analyzing network behavior, detecting anomalies, and enhancing security measures.

10. **Education:** AI is used in educational technology for personalized learning, adaptive assessment, and providing intelligent tutoring systems.

Apart from these fields AI also applicable in Agriculture, finance, law, banking and transportation sector.

Advantages of AI

Artificial Intelligence (AI) offers numerous advantages across various domains, contributing to innovation, automation, efficiency, and improved decision-making. Like

1. Increase productivity & quality in production
2. Automation
3. Increase efficiency and performance
4. Innovation
5. AI helps in making faster decision
6. Improved security
7. Large data analysis
8. Digital assistance in various filed

"If you are against the AI means you are against the safer cars that will reduce accidents and If you are against the AI means you are against the medical treatment possibilities that will be tell that you are going to get morbid.": - **Mark Zuckerberg**

Difference between Augmented intelligence and Artificial Intelligence

Augmented intelligence	Artificial Intelligence
❖ Augmentation does not replace people but creates systems that help in manufacturing. ❖ Augments human decision making ❖ Robots/Industrial IoT: Collaborative robots work along with humans to handle tasks that are hard and repetitive. ❖ Real-Time Applications of AI in Customer Success 1.AI-enabled customer analytics 2. Discover high-risk/high-potential customers 3. Forecasts Sales	❖ AI replaces humans and operates with high accuracy. ❖ Replaces human decision making ❖ Robots/Industrial IoT: Robots will replace all humans on the factory floor. ❖ Real-Time Applications of AI in Customer Success 1. Automated Customer Support and Chatbots 2. Virtual Assistants Automated Workflows

AI Job Killer orCreator?

The impact of AI on jobs is a complex and multifaceted issue because if we recall the history whenever there is a revolution in technology: old jobs are lost and new jobs are created. The same things will be happen with AI.For example, the job of horse cart driver was replaced by car and tempo driver. Telephone operator lost their job due to mobile phone.When ATM came, the jobs of bank tellers in the banking sector declined rapidly.While robots have displaced unskilled workers on assembly lines and due to online websites, booking operator also lose their jobs. Thus technological revolution have both face of job killer and creator.
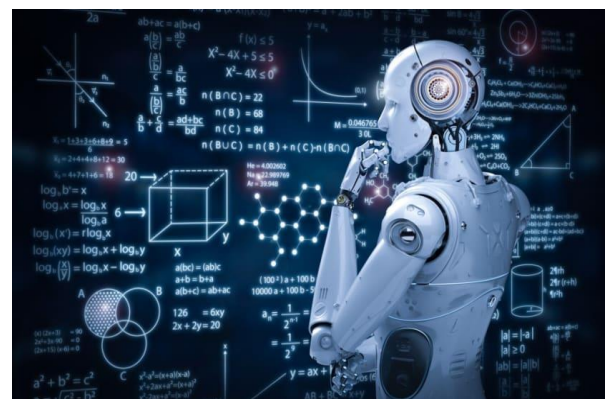
In the latest report (May 2023) on The Future of Jobs, the World Economic Forum (WEF) predicts the creation of 69 million jobs by 2027due to AI, but also the destruction of 89 million jobs and 47 per cent Job will replace in next 20 years due to AI.

IBM CEO Arvind Krishna told "I could easily see 30 % of jobs getting replaced by AI & automation over a five year period". According to a report by global investment bank Goldman Sachs, AI could replace the equivalent of 300 million full time jobs and generative AI, able to create content indistinguishable from human work, is "a major advancement".

What will happen in Future?

This is a matter of serious concern that what will our future be like with AI?We don't know anything. There may be some too because AI has infinite power, infinite information, infinite creation possibilities and infinite destruction

possibilities. We will get to shock to know the IQ level of AI. In Jan. 2022, Age of IQ level of AI was as 7 year old Children and in Dec. 2022, Age of IQ level of AI was as 9 year old Children.Means a 9 year old children (AI) have infinite power then what will be happen when this child will be adult.

The good father of AI Dr. Geofferry Hinton resigned from Google for speak freely about potential risk posed by AI.

"We need to move forward on artificial intelligence development but we also need to be mindful of its very real dangers. I fear that AI may replace humans altogether." **- Stephen Hawking**

AI & India

It is a serious concern for India to see future with AI, because according to National Sample Survey organization Report, literacy rate of India is 77 % in 2022 if we see AI as new Era then 23 % Indian population will left in old Era. Nearly 60 % Indian between ages of 15 to 29 cannot copy or move computer files and 75 % Indian cannot send E-mails with attachment.

Conclusion

The study conclude that artificial Intelligence is one such field that contains a lot of opportunity and good fortune if, India is capable to utilize all the potentials from it. The government of India has already laid the groundwork for building an AI ecosystem in India through the appointment of a task force on artificial intelligence. Artificial Intelligence can prove to be technological revolution and boom agriculture to feed the increasing human population of the world. Recommended policy is for AI that identifying a Nodal Agency within the Government for development and diffusion of AI, the design and workings of which will be critical to push wide-scale AI adoption in India. Explore a market place for skilled AI professionals to meet the immediate skill gap that AI start-up currently face.

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