

IMPACT OF ARTIFICIAL INTELLIGENCE ON SOCIETY

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Introduction:

The impact of the information and technology revolutions has influenced all aspects of our society. Emerging concept of Artificial intelligence has also similar far-reaching effects. People will be capable of buying goods and obtaining services from anywhere in the world using the Internet, and exploiting the unlimited, additional benefits that will open through the widespread usage of Artificial intelligence inventions. The greatest challenge facing societies and firms would be utilizing the benefits of availing Artificial intelligence technologies, providing vast opportunities for both new products/services and immense productivity improvements while avoiding the dangers and disadvantages in terms of increased unemployment and greater wealth inequalities. This paper focused on study of impact of Artificial intelligence on society, its benefits and possible threats and concludes with measures to govern the field of Artificial intelligence.

What is Artificial Intelligence?

The term artificial intelligence was

coined in 1956. This is a subject of Computer Science with aim to build machines and computers that can improve logical operations. Artificial intelligence is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans. It has become an essential part of the technology industry. Research associated with artificial intelligence is highly technical and specialized. The core problems of artificial intelligence include programming computers for certain traits such as Knowledge, Reasoning, Problem solving, Perception, Learning, Planning, Ability to manipulate and move objects etc. Using these technologies, computers can be trained to accomplish specific tasks by processing large amounts of data and recognizing patterns in the data

Why is artificial intelligence important?

Every single day, the desire and use of artificial intelligence is growing. This technology is allowing us to function better and save our time by simplifying of processes. Its, ultimate goal is to reduce human effort. These

technologies have recently gained attraction and mass-adoption due to the technology becoming simpler to use and costing less. Various industries have started using artificial intelligence technology to develop systems that perform different activities. The artificial intelligence applications help to get the work done faster and with accurate results. This adds intelligence to existing products. In most cases, Artificial intelligence will not be sold as an individual application. Rather, products you already use will be improved with Artificial intelligence capabilities; such like Siri was added as a feature to a new generation of Apple products. Automation, conversational platforms and smart machines can be combined with large amounts of data to improve many technologies at home and in the workplace, from security intelligence to investment analysis. Artificial intelligence adapts through progressive learning algorithms to let the data do the programming. So, just as the algorithm can teach itself how to lay chess, it can teach itself what product to recommend next online. In the medical field, Artificial intelligence techniques from deep learning, image classification and object recognition- can now be used to find cancer on MRIs with the same accuracy as highly trained radiologists

Impacts of Artificial Intelligence on Society

Largely industries are being influenced by Artificial intelligence. Every industry has a high demand for Artificial intelligence capabilities. Major impact of AI include following:

Transportation

The transportation industry will be the first to be completely disrupted by artificial intelligence. In fact, a lot of the impact of Artificial intelligence is already taking place. Uber and Ola are both working on self-driving technology. So many hours of human productivity can be saved with this. It is not only going to save society time, but it's also going to reduce the cost of transportation drastically. Air transport is one of the most systematic transportation systems, and it will not be wrong to say that air transport cannot survive without the use of artificial intelligence. Numerous functions in the machines and management processes are controlled by the Artificial intelligence. There are many features from booking the tickets to the takeoff and operation of the flights that Artificial intelligence takes care of. Artificial intelligence applications make air transport efficient, fast, safe, and provides a comfortable journey to the passengers.

Criminal Justice

The next industry disrupted by artificial intelligence is the criminal justice system. Advancements in facial recognition are making the fingerprint outdated. However, the criminal jus-

tice system is the one area where too much innovation could be a terrible thing for society. Without proper government regulations of artificial intelligence and machine learning; we are at risk of major disruptions to our democracy.

Advertising

Artificial intelligence provides virtual shopping capabilities that offer personalized recommendations and discuss purchase options with the consumer. Machine learning algorithms are building personality profiles on every human being. The amount of data collected by advertisers continues to grow. Related product recommendations, search results and social news feed items are all examples of places where advertisers are embedding smart ads that use AI to target you as an individual consumer. Slowly, these AI algorithms can learn your behavior, and before you know it, they know you better than you know yourself.

Health Care

Artificial intelligence applications can provide personalized medicine and X-ray readings. Personal health care assistants can act as life coaches, reminding you to take your pills, exercise or eat healthier.

Sports

Artificial intelligence is used to capture images of game play and provide coaches with reports on how to better

organize the game, including optimizing field positions and strategy.

Banking & Financial Systems

Banks are using AI/Machine Learning technology to handle various complex processes in a faster, cheaper, and less erroneous way. Some of the use-cases are: form processing, fraud detection, sales/loss/profit projections, default forecasting, chatbots or digital personal assistants for customer on-boarding, support, etc., wealth management, portfolio management, card management systems, risk management, hedge fund management, and others.

Gaming

These days, we are able to play TV and computer games on the whole new level; all thanks to the artificial intelligence application. We all remember the time when "Super Mario" was the only game considered as the best. Now there are various gaming bots introduced and these will play with you and provide you the great entertainment. Virtual reality is also one example of artificial intelligence.

What Are The Challenges Of Using Artificial Intelligence?

In today's technological landscape, the advent of artificial intelligence may become one of mankind's greatest achievements, but as renowned physicist Stephen Hawking warned, "it might also be the last, unless we learn

to avoid the risks." Hawking stresses that any serious discussion of artificial intelligence must take into consideration the potential threats and how to manage them. Although there are numerous benefits that can be seen, but with every great innovation, there is also a certain amount of risk. One of the greatest risks could be of this technology being used for destruction or other foolish activities. If this does happen, the very technology that we create can kill us in the near future. In order to take care of this crucial aspect, there are many organizations and scientists that are pushing for regulatory oversight on Artificial intelligence application and systems. Artificial Intelligence plays a very important role in not just the development of business and processes but also the humans to the next level. With the rapid growth in technology and development, we can expect a lot more exciting features and uses of Artificial intelligence in the future. Webroot an American Internet security firm report that 91% of cybersecurity professionals are concerned about hackers using Artificial intelligence against companies in cyberattacks. Using Artificial intelligence, hackers can infiltrate IT infrastructure and stay there unnoticed for extended periods of time. Using a sustained, unnoticed presence, hackers' knowledge of a network and its users grow stronger, to the point where they can control entire systems. On top of this, hackers are start-

ing to perform "smart" phishing.. 87% of US cybersecurity professionals report that their organisations are currently using AI as part of their cybersecurity strategy. The outputs will always reflect the inputs no matter how "smart" the technology is, it can't apply common sense, and it can't perform miracles. The algorithms which drive this technology aren't biased it's their human creators who build in the bias. Put simply, nailing the technical element is not enough, it needs to be balanced with the human element the understanding of the world and the environments in which the technology will be used. Artificial intelligence is going to change every industry, but we have to understand its limits. The principle limitation of Artificial intelligence is that it learns from the data. There is no other way in which knowledge can be incorporated. That means any inaccuracies in the data will be reflected in the results. Today's Artificial intelligence systems are trained to do a clearly defined task. The system that plays poker cannot play solitaire or chess. The system that detects fraud cannot drive a car or give you legal advice. In fact, an Artificial intelligence system that detects health care fraud cannot accurately detect tax fraud or guarantee claims fraud. In other words, these systems are very, very specialized. They are focused on a single task and are far from behaving like humans

Law Regulating Artificial

Intelligence:

Currently, there are no defined laws or regulations that govern the field of artificial intelligence in India. Some independent bodies exist with an aim to research and create machinery underlying the thought of intelligent behaviour. One such organization is the Artificial Intelligence Association of India (AIAI). Founded in the year 2009, it is a non-profit scientific society devoted to advancing the scientific understanding of mechanisms underlying the thought and intelligent behaviour and their embodiment in machines. The Centre for Artificial Intelligence and Robotics, which is a branch of DRDO, has developed the Network Traffic Analysis Software (NETRA). This software has capabilities to intercept and analyze the internet traffic via specified filters.

Currently, this software is being used by RAW, IB, state-level law enforcement agencies and is piloted by Ministry of Home Affairs .

Two major issues come up at this stage are Data protection framework in India and In case of breach, who is to be blamed in the absence of human intervention? The data protection regime in India is alarmingly weak to match the pace of growth of AI.

Broadly speaking, the Information Technology Act, 2000 is the only piece of legislation which 'touches' upon this subject. Whereas it is undeniable that certain safeguards pertain to data protection and privacy

have been laid down in Sections 43A and 72 of the Act, but the safeguards fall greatly short of ensuring actual protection .

Suggestion:

As propounded by Isaac Asimov 'three laws of robotics' can be a suggestion which greatly focused on keeping a product of technology as subordinate to the human mind. It is crucial to ensure that an AI system is explicitly subject to all the laws of the land to which its human operator is subject. The government must put in place adequate safeguards in the form of prior intimation of extraction of information to individual users.

Conclusion:

Artificial intelligence has become an important part of everyone's life. The impact Artificial intelligence is having on our society cannot be ignored. There are a number of sectors Artificial Intelligence are moving into. Artificial Intelligence can be used to improve security, transport, sport etc. However, there is a need to regulate its governance for avoiding the consequences of misuse.

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