Applications of Artificial Intelligence

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Abstract- AI or Artificial Intelligence is defined as the intelligence exhibited by machines. These machines have many applications in today's society. More specifically, it is Weak AI, the form of AI where programs are developed to perform specific tasks that are being largely utilized for activities including electronic trading, Voice recognition and are also widely used in business, in autonomous vehicles etc. Unlike general perception, AI has been used to develop and advance numerous fields and industries, including finance, healthcare, education and more. Artificial Intelligence is an important part of our daily life. Our life is changed by AI because this technology is used widely throughout. Technologies like AI, reduce human effort. In many industries, people are using AI to develop machine slaves to perform various types of activities. This helps in getting the work doing in a less amount of time while also giving us accurate results. The introduction of AI brings the idea of error free world. AI will slowly be introduced in all sectors to reduce human effort and give accurate and faster result making life easier.

Keywords: Artificial Intelligence, Weak AI

Introduction

Artificial Intelligence is one of the many hot topics that the IT industry is hovering around these days. We know what the word 'Intelligence' deals about. It is the capability to perceive, comprehend, speculate and manipulate to solve problems in a world far larger and complicated than the degree of knowledge that one has in his possession. Have you ever thought what will happen if machines grasp this human capability of intelligence and begin with performing human tasks which require intelligence?

The furtherance in the fields of Artificial Intelligence and Advanced Machine learning (ML) can make this far off dream a reality in the coming few years.

What is the need of Artificial Intelligence ?

I. **AI adapts through progressive learning algorithms.**

This lets the data do the programming. AI observes structure and regularities in data so that the algorithm can acquire a skill. The algorithm then becomes a predictor or we can say that it becomes a classifer. So, just as the algorithm can teach itself how to play solitaire, it can teach itself what products to recommend next online to the user. Thus the models adapt when given new data. Back propagation is an AI technique that allows the model to modify, through training and newly added data, when the first answer is not quite right.

II. **AI analyzes more and deeper data.**

Artificial Intelligence uses neural networks that have many hidden layers. Building a fraud detection system with five hidden layers was almost not possible a few years ago. All that has changed with incredible computer power and big data. You need a large number of data to train deep learning models because they learn directly from the data. The more data you can give them, the more accurate they will become.

III. **AI achieves incredible accuracy**.

Artificial Intelligence uses this accuracy through deep neural networks, which was previously impossible. For example, your interactions with Alexa,Siri, Google Search and Google Photos are all based on deep learning and they keep getting more accurate the more we use them. In the medical field, AI 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.

IV. **AI gets the most out of data.**

When algorithms are self-taught, the data itself can become intellectual property. The answers are in the data. We just have to apply Artificial Intelligence to get them out. Since the role of the data is now more important than ever it was ever before, it can create a competitive advantage. If you have the best data in a competitive industry, even if everyone is applying the same or more or less similar techniques, the best data will always win.

V. **AI automates repetitive learning and discovery through data.**

But AI is different from hardware-driven, robotic automation. Instead of automating manual tasks, AI performs frequent, high-volume, computerized tasks reliably and without fatigue. For this type of automation, human inquiry is still essential to set up the system and ask the right questions.

VI. **AI adds intelligence.**

In most cases, AI will not be sold as an individual application. Rather, products you already use will be improved with Artificial Intelligence abilities. The best example for this can be that Siri was added as a feature to a new generation of Apple products. Automation, conversational platforms, bots and smart machines can be united with large amounts of data to improve many of the technologies at home and in the workplace, from security intelligence to investment analysis.

Applications of Artificial Intelligence

As Artifical Intelligence advances day by day, the count of its applications increases. Artificial Intelligence is now widely used throughout. The use of Artificial intelligence in our daily life activities is growing as days pass by. With the use of Artificial Intelligence, life has become easier. Some of the many applications of Artificial Intelligence are discussed below.

I. The latest musical hits.

Has it ever occurred to you that artificial intelligence could help create hit songs? The single "Not Easy" by Ambassadors, Elle King, and Wiz Khalifa reached number 4 on iTunes' Hot Tracks list. But where was AI used? Well, the single was actually based on findings obtained by big data. Artificial intelligence hunted through a large number of conversations, newspaper titles, and lectures based on the main theme of the song: heartbreak. Then, after they defined the theme, machine learning algorithms were programmed to create music found on different musical elements, which gave them ideas on how this piece should sound.

II. Artificial Intelligence Applications in Banking.

Banking AI in banking is growing faster than we thought. A lot of banks have already adopted AI-based systems to provide customer support, detect anomalies and credit card frauds. An example of this is HDFC Bank. HDFC Bank has developed an AI-based Chatbot called EVA(Electronic Virtual Assistant), built by Bangalore-based Sense forth AI Research. Since its launch, Eva has addressed over 3 million customer problems, interacted with over half a million unique users, and held over a million conversations. Eva can collect knowledge from a large amount of sources and provide simple answers in less than 0.4 seconds.

III. Self driving cars.

Have you ever heard of cars that drive without a driver, that are only guided by artificial intelligence technologies and automatic learning? Well, Tesla was one of the first automotive brands to launch a self-driving vehicle, and now Audi, Cadillac, and Volvo are already developing their own models. But that's not all. Uber already made the first 50,000 beer delivery with a self driving truck.

IV. **Reduced Energy Use And Costs.**

We have used Artificial Intelligence to cut down energy use and reduce the energy costs for drilling, crude and natural gas transportation, storage and petroleum refining operations. Until recently, the industry has been looking at historical data points. The AI application we run can now grasp and predict future energy load at levels as granular as a single blending activity. This opens up an entire range of opportunities to reduce waste, reduce peak demand and cut costs. -

V. **Intelligent Robots**.

Robots are able to perform the tasks given by a human. They have sensors to detect physical data from the real world such as light, heat, temperature, movement, sound, bump, and pressure. They have efficient processors, multiple sensors and huge memory, to exhibit intelligence. In addition, they are capable of learning from their mistakes and they can adapt to the new environment.

VI. Role of AI in Air Transport .

One of the most systematic transport is air transport. And without AI air transport can't survive. A machine which is used in the plans for performing different functions is run on the basis of AI. All most all the activity which performed to control air transportation is based on AI technologies. There are different software designed on the AI platform to give better flight to passengers and feel free from the danger.

Conclusion

Artificial Intelligence technology has now became a part of every individuals life. From small to big work everyone is using AI to generate leads and remove the work pressure. We use it so that life can become easier and work can be done easily without much effort using a lesser amount of time and giving more accurate results. These technologies are so advanced that we do not have to write every code for every activity. They understand the motion of work automatically.

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