**ARTIFICIAL INTELLIGENCE**

Artificial Intelligence has different interpretations by different people. It is considered as the tool for “Making computational models of human behaviour or models of human thought processes”. The concept of AI is based on the idea of building machines capable of thinking, acting, and learning like humans. All we want is computational systems that behave intelligently and rationally. We might feel that although we can't define what it is to be intelligent, we can recognize it when we see it. Often people consider Artificial Intelligence and Machine Learning to be the same thing. But that’s not true. Artificial intelligence is a broader concept , while machine learning is the most common application of AI.

The applications of AI are widespread and is seeing a mushroom-growth in today’s world. Some of the most common applications being:

* Speech Recognition: Some intelligent systems are capable of hearing and comprehending the language in terms of sentences and their meanings while a human talks to it. The most common examples of speech recognition software are Google Assistant and Siri.
* Gaming - AI plays crucial role in strategic games such as chess, poker, tic-tac-toe, etc.where machine can think of large number of possible positions based on heuristic knowledge.
* Handwriting Recognition − The handwriting recognition software reads the text written on paper by a pen or on screen by a stylus. It can recognize the shapes of the letters and convert it into editable text.
* Knowledge Representation and Reasoning – This software understands queries and responds accordingly. It is used in chatbots that answer customer questions.
* 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 and huge memory, to exhibit intelligence. In addition, they are capable of learning from their mistakes and they can adapt to the new environment.

Of late, Artificial Intelligence has become a huge platform in the start-up sector. Many start-ups have come up with AI as their major tool. Some prominent sectors are:

* Ed-Tech - Such start-ups collect data from students and provide personalized learning recommendations. Students can actually improve test scores by fixing basic mistakes using its AI platform. Embibe is a leading venture in this sector.
* Healthcare – A start-up named Sigtuple is helping hospitals and healthcare centres improve the speed and accuracy of blood reports. Another one, named Tricog, is set out to help doctors make instant diagnosis of heart attacks and ensure treatment is not delayed.
* Chatbots – A successful start-up, Niki.ai is a chatbot that offers services like hotel bookings, paying bills and tickets reservations.
* Logistics – Programmers have developed route-planning algorithms so companies can chart the best possible route to deliver an order and allow a salesperson to cover the maximum number of points in the shortest time possible. One such successfully running start-up is Locus.sh.

But as we always say, “With great power comes great responsibility”, so is the case with this AI wave. Mistakes can and will be done by Artificial Intelligence. AI can falsely identify, incorrectly analyse, or misinterpret anyone and anything. And so we need it to be “ethical”. Some of the major ethical issues with AI are as follows:

* Unemployment. What happens after the decline of jobs? - As we’ve invented ways to automate jobs, we could create room for people to assume more complex roles, moving from the physical work to intellectual labour that characterizes strategic and administrative work.
* Humanity. How do machines affect our behaviour and interaction? – We are at the start of an age where we will frequently interact with machines as if they are humans; whether in customer service or sales. While humans are limited in the attention and kindness that they can expend on another person, artificial bots can channel virtually unlimited resources into building good relationships.
* Artificial stupidity. How can we guard against mistakes? - Intelligence comes from learning, whether you’re human or machine.AI systems undergo a “learning” phase, but obviously, the training phase cannot cover all possible examples that a system may deal with in the real world. So, we need to ensure that the machine performs as planned, and that people can’t overpower it to use it for their own ends.
* Security. How do we keep AI safe from adversaries? - The more powerful a technology becomes, the more can it be used for adverse reasons as well as good. This applies not only to robots produced to replace human soldiers, or autonomous weapons, but to AI systems that can cause damage if used maliciously.

Some ethical questions are about mitigating suffering, some about risking negative outcomes. While we consider these risks, we should also keep in mind that, on the whole, this technological progress means better lives for everyone. Artificial intelligence has vast potential, and its responsible implementation is up to us.