



**Report on**

# **Future of Artificial Intelligence & Machine Learning**



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Gandhinagar**

## Introduction - Report on Future Of Artificial Intelligence & Machine Learning

AI's influence on technology is due in part because of how it impacts computing. Through AI, computers have the ability to harness massive amounts of data and use their learned intelligence to make optimal decisions and discoveries in fractions of the time that it would take humans.

AI has come a long way since 1951, when the first documented success of an AI computer program was written by Christopher Strachey, whose checkers program completed a whole game on the Ferranti Mark I computer at the University of Manchester.



Since then, AI has been used to help sequence RNA for vaccines and model human speech, technologies that rely on model- and algorithm-based machine learning and increasingly focus on perception, reasoning and generalization. With innovations like these, AI has re-taken center stage like never before — and it won't cede the spotlight anytime soon.

Undoubtedly, Artificial Intelligence (AI) is a revolutionary field of computer science, which is ready to become the main component of various emerging technologies like big data, robotics, and IoT. It will continue to act as a technological innovator in the coming years. In just a few years, AI has become a reality from fantasy. Machines that help humans with intelligence are not just in sci-fi movies but also in the real world. At this time, we live in a world of Artificial Intelligence that was just a story though for some years.

**SPEAKER 1: Dr. Ramesh Prajapati on Artificial Intelligence**

**SPEAKER 2: Prof. Darshan Patel on Machine Learning**

**VENUE: SEMINAR HALL SSIT**

**DATE / TIME: 4th NOVEMBER 2023 AT 10:00 AM**

### **Future Scope of Machine Learning**

The scope of Machine Learning is not limited to the investment sector. Rather, it is expanding across all fields such as banking and finance, information technology, media & entertainment, gaming, and the automotive industry. As the Machine Learning scope is very high, there are some areas where researchers are working toward revolutionizing the world for the future.



## **Automotive Industry**

The automotive industry is one of the areas where Machine Learning is excelling by changing the definition of ‘safe’ driving. There are a few major companies such as Google, Tesla, Mercedes Benz, Nissan, etc. that have invested hugely in Machine Learning to come up with novel innovations. However, Tesla’s self-driving car is the best in the industry. These self-driving cars are built using Machine Learning, IoT sensors, high-definition cameras, voice recognition systems, etc.

## **Robotics**

Robotics is one of the fields that always gain the interest of researchers as well as the common. In 1954, George Devol invented the first robot that was programmable and it was named Unimate. After that, in the 21st century, Hanson Robotics created the first AI-robot, Sophia. These inventions were possible with the help of Machine Learning and Artificial Intelligence.

## **Quantum Computing**

We are still at an infant state in the field of Machine Learning. There are a lot of advancements to achieve in this field. One of them that will take Machine Learning to the next level is Quantum Computing. It is a type of computing that uses the mechanical phenomena of quantum such as entanglement and superposition. By using the quantum phenomenon of superposition, we can create systems (quantum systems) that can exhibit multiple states at the same time. On the other hand, entanglement is the phenomenon where two different states can be referenced to each other. It helps in describing the correlation between the properties of a quantum system.

## **Computer Vision**

As the name suggests, computer vision gives a vision to a computer or a machine. Here comes into our minds what the Head of AI at Google, Jeff Dean, has once said, ‘ The progress we’ve made from 26% error in 2011 to 3% error in 2016 is hugely impactful. The way I like to think is, computers have now evolved eyes that work.’



**SESSION HIGHLIGHTS**



**Prof. Darshan Patel interacting with students during session**



**Dr. Ramesh Prajapati interacting with students during session**

Thank You...