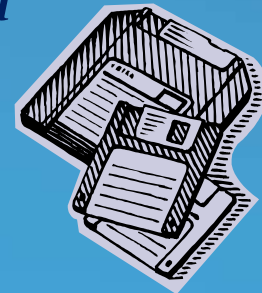
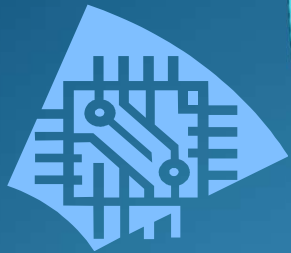


Topic = Artificial Intelligence(A.I)



- *Chess-playing computers ,Self-driving cars, Personal Digital*
- *Assistance Apps, Flying Drones, Voice recognition apps – these*
- *are all popular technological breakthroughs today. Unlike*
- *regular computer programs, where machines only follow*
- *programming instructions, these applications use various*
- *technological tools to learn and make decisions on their own. This*
- *ability of machines to think and learn on their own is called*
- *Artificial Intelligence Or Simply A.I .*

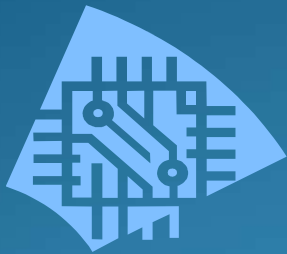




What Contributes to A.I?



- *Intelligence, according to the Oxford dictionary, is defined as- the*
- *ability to acquire and apply knowledge and skills. AI(Artificial*
- *Intelligence) is the simulation of human intelligence processes by*
- *machines, especially computer systems. These processes include learning,*
- *reasoning, and self-correction. The field AI was found in 1956, at a*
- *conference at Dartmouth College , USA ,where the term “Artificial*
- *intelligence” was*
- *coined by a Stanford researcher John McCarthy. Computer scientists have*
- *been*
- *working on AI for decades.*



How Does A.I work?



- *AI includes tools and techniques like Artificial Neural*
- *Networks, Machine Learning, Natural Language*
- *Processing, and Deep Learning to work like the human*
- *mind. It works like our bodies but uses sensors similar to*
- *the human body to collect the raw data of what's going*
- *on in the world and, much like our brain ,makes sense of*
- *data and decides what actions to perform.*



Artificial Neural Networks

- *In our brain, there is a chain of neurons which*
- *communicate with each other through axons. Artificial*
- *Neural Networks(ANN) is similar to the Biological Neural*
- *Network. Like our brain which passes information through*
- *a chain of neurons in order to classify data. Similarly, the*
- *ANN contains interconnected nodes through which data is*
- *passed and classified. The Network is able to make*
- *decisions or predictions with accuracy based on*
- *the data fed to it*

More about ANNs and How does ANNs works?



- *There is an added feature in this network, which senses if the*
- *decision taken is right or wrong and, and gives this feedback*
- *to the ANN. Based on this ANNs can be taught to recognize*
- *images, speech, patterns, etc. and classify them according*
- *to their contents. For e.g., to recognize a cat image in an*
- *image, one node of the ANN will compare it with images of*
- *cats and other animals already available in its system. It will*
- *identify if the given image of a cat and other neurons will confirm if the*
- *result is accurate or not. The result will help it get smarter and more*
- *accurate the next time.*



Machine Learning

- *Machine learning means giving machine access to*
- *information and letting the machine learn from it, on its*
- *own. Machine learning is an approach to achieve Artificial*
- *Intelligence, and uses of set of algorithms to analyse data and*
- *learn from data to make informed decisions. Artificial*
- *Intelligence can work without using machine learning, but*
- *this would require building millions of codes with complex*
- *rules and decision-trees. Rather than feeding Computers and*
- *machines on how to do everything, it is far more efficient to*
- *code them to think like "human beings". For e.g.=Amazon, Flipkart*



Deep Learning

- *Deep Learning is one of the many approaches to machine learning. In Deep learning, a large amount of data is fed into the computer system, which it uses to make decisions about the other data. This is achieved by passing data through multiple layers of ANNs. Deep Learning can be applied to any form of data-machine signals, audio, video, speech and written words-to produce conclusions like humans at high speed. Deep learning requires a huge amount of data to be able to take decisions.*



Natural Language Processing (NLP)

- *Natural language refers to the way we humans, communicate with each other by speech or text. Humans speak hundreds of languages with different dialects, slangs and accents which is not easily understood by the computers. Similarly, humans find it difficult to communicate with computers using machine language.*
- *NLP is a field of A.I that enables computers to analyse and understand human language and also communicate with us using similar, natural language. Like Google and other search engines base their Translation technology on NLP. This technology allows algorithms to read text on a webpage, interprets its meaning and translates it to another language.*

Myths and Applications of A.I and current future

- *A.I will not replace humans in various jobs but is meant to work in collaboration with humans by creating new types of jobs and roles.*
- *Applications of AI Are -----*
- *Google's A.I powered Google Maps, Uber , OLA, etc.*
- *Commercial A.I Autopilot Flights, etc.*
- *Email like G-Mail, Allo, etc.*
- *Banking/Personal Finance: Like Sbi Buddy, etc.*
- *Social Networking: Like Whatsapp, Facebook, Instagaram.*
- *Online Shopping: Like Amazon And Flipkart.*
- *Mobile Use: Like Speech Recognition*
- *Smart Virtual Assistant: Like Google Assistant, Amazon's echo, Jarvis of Facebook.*



Limitations of A.I

- *Although A.I has progresses a lot in recent years, but it is still not able to accurately identify human behaviour emotions and identify and handle objects as smoothly as humans do. A lot of research and development is yet to be done before we reach that stage.*

*Thank U Ma'am for giving
your precious time to view
the slides 😊.*

*By Ur Student-
Adit Bujar Barua*

Class- VIII Sec-E

Roll No-1

And

Id no- 9470

