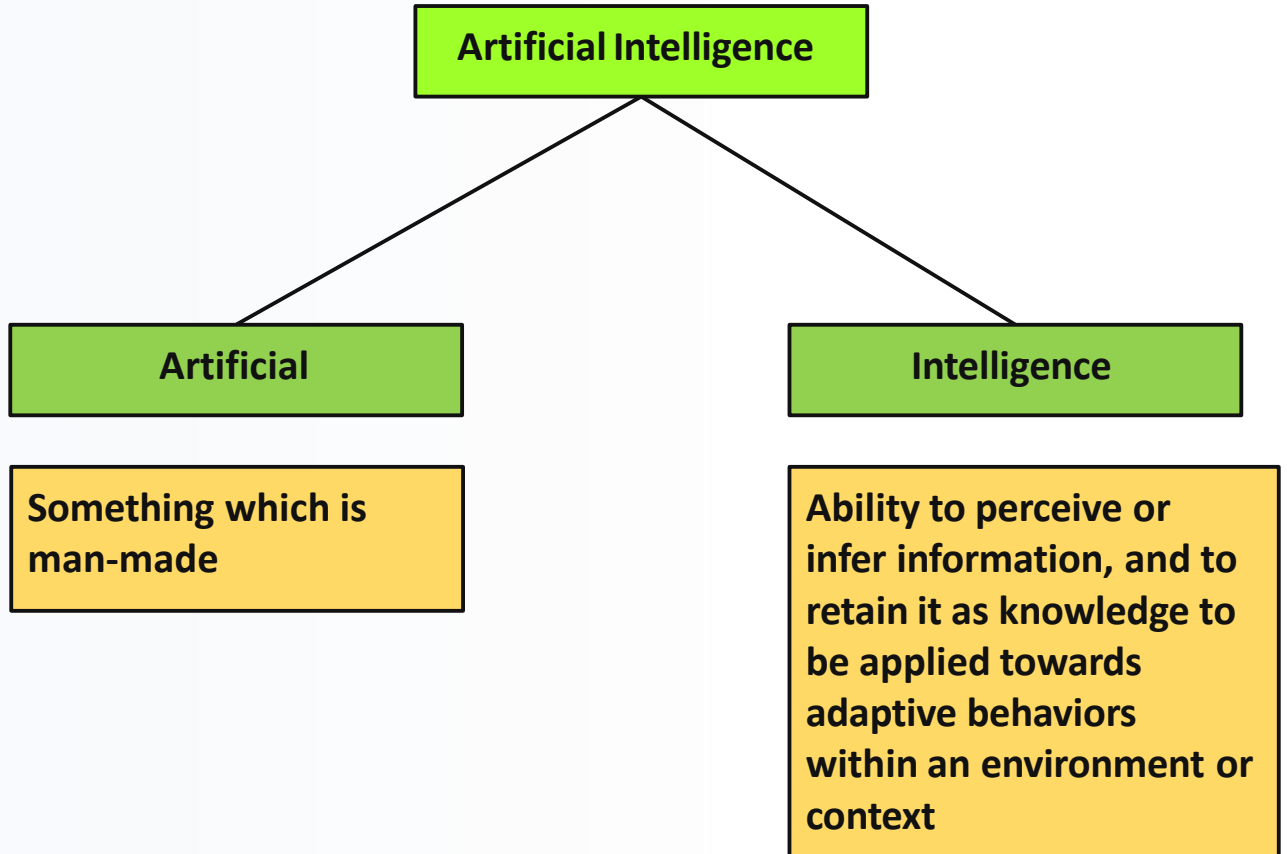
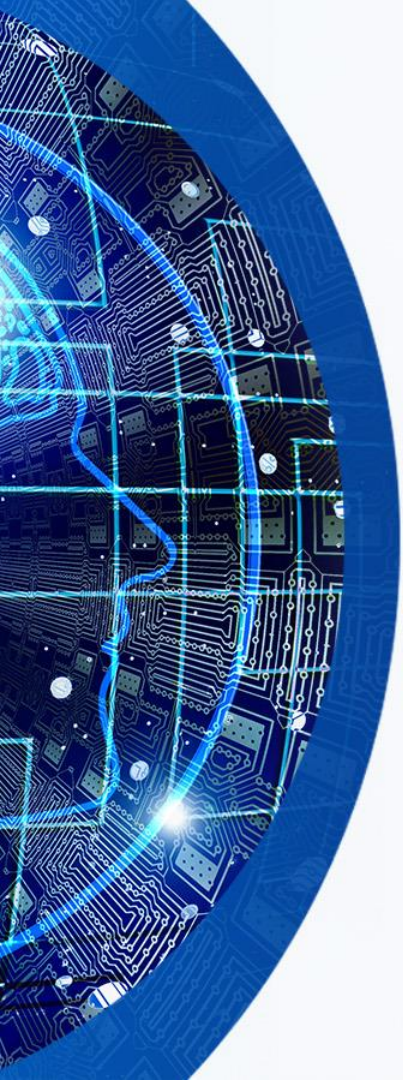
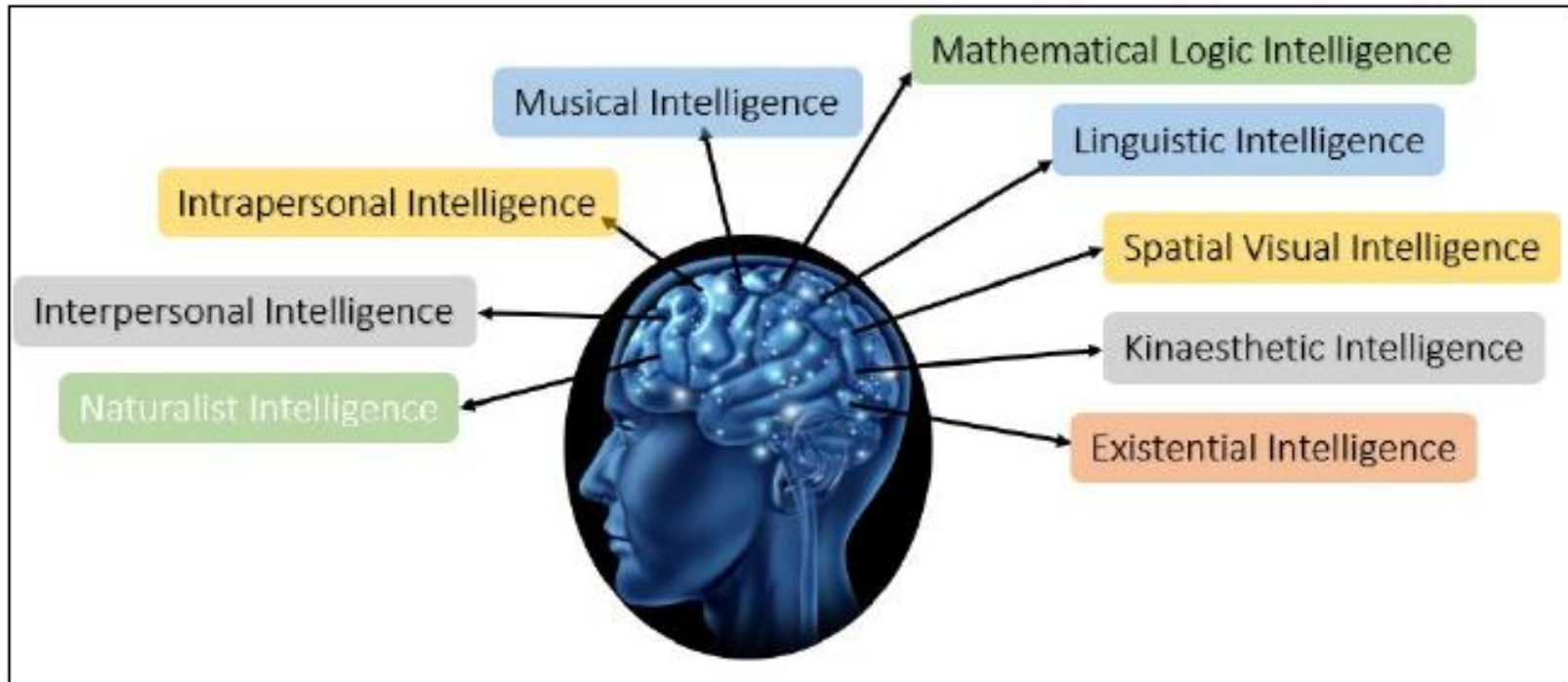




ARTIFICIAL INTELLIGENCE INTRODUCTION TO AI



Traits of intelligence





Defining traits of intelligence

Mathematical Logical Reasoning

- A person's ability to regulate, measure, and understand numerical symbols, abstraction and logic.

Linguistic Intelligence

- Language processing skills both in terms of understanding or implementation in writing or verbally.

Spatial Visual Intelligence

- It is defined as the ability to perceive the visual world and the relationship of one object to another.



Defining traits of intelligence

Kineasthetic Intelligence

- Ability that is related to how a person uses his limbs in a skilled manilr.

Musical Intelligence

- As the name suggests, this intelligence is about a person's ability to recognize and create sounds, rhythms, and sound patterns.

Intrapersonal Intelligence

- Describes how high the level of self-awareness someone has is. Starting from realizing weakness, strength, to his own feelings.



Defining traits of intelligence

Existential Intelligence

- An additional category of intelligence relating to religious and spiritual awareness.

Naturalist Intelligence

- An additional category of intelligence relating to the ability to process information on the environment around us.

Interpersonal intelligence

- Interpersonal intelligence is the ability to communicate with others by understanding other people's feelings & influence of the person.



Defining intelligence as:

- **Ability to interact with the real world**
 - To perceive, understand and act
 - Example: Speech Recognition – Understanding and synthesis
 - Example: Image Recognition
 - Example: Ability to take action: to have an effect
- **Reasoning and planning**
 - Modelling the external world, given input
 - Solving new problems, planning and making decisions
 - Ability to deal with unexpected problems, uncertainties
- **Learning and adaptation**
 - Continuous learning and adapting graph
 - Our internal models are always being updated
 - Example: Baby learning to categorize and recognize animals



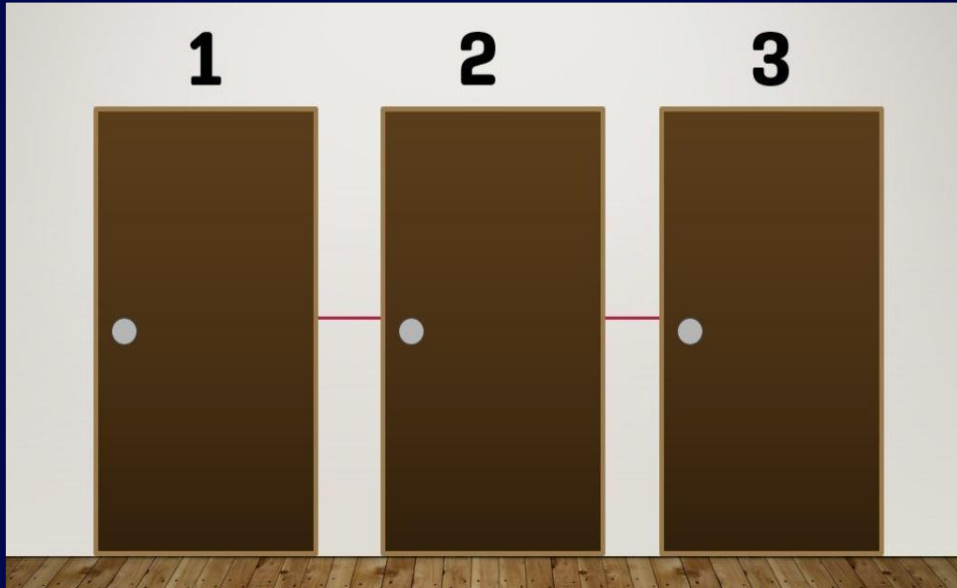
What is Artificial Intelligence?

- **AI is a form of intelligence; a type of technology and a field of study.**
- **AI theory and development of computer systems (both machines and software) are able to perform tasks that normally require human intelligence.**
- **Artificial Intelligence covers a broad range of domains and applications and is expected to impact every field in the future.**
- **Overall, its core idea is building machines and algorithms which are capable of performing computational tasks that would otherwise require human like brain functions.**

Decision Making

How do you make decisions

Scenario 1



You are locked inside a room with 3 doors to move out of the locked room and you need to find a safe door to get your way out. Behind the 1st door is a lake with a deadly shark. The 2nd door has a mad psychopath ready to kill with a weapon and the third one has a lion that has not eaten since the last 2 months

Which door would you choose? and Why?



Decision Making

How do you make decisions

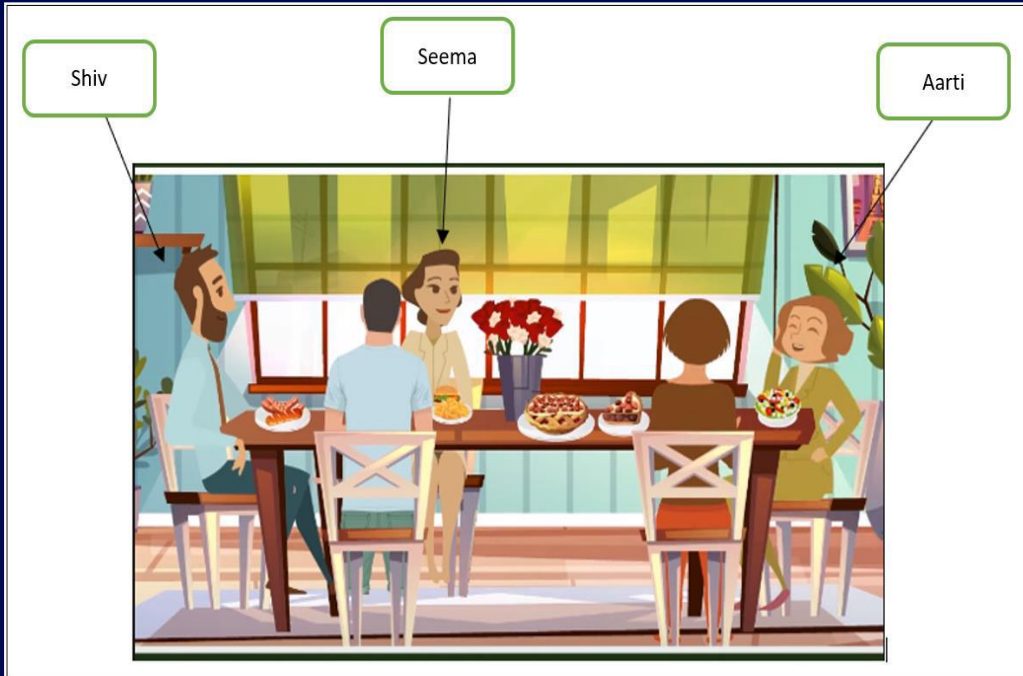
Scenario 1

The answer is gate number 3. The reason being that since the lion has not eaten for 2 months, he wouldn't have survived till now and would already be dead . This makes going out from gate 3 the correct option.

Decision Making

How do you make decisions

Scenario 2



Aarti invited four of her friends to her House.. They hadn't seen each other in a long time, so they chatted all night long and had a good time. In the morning, two of the friends Aarti had invited, died. The police arrived at the house and found that both the friends were poisoned and that the poison was in the strawberry pie. The three surviving friends told the police that they hadn't eaten the pie. The police asked, " Why didn't you eat the pie ?". Shiv said, " I am allergic to strawberries." . Seema said, " I am on a diet." And Aarti said, "I ate too many strawberries while cooking the pie, I just didn't want anymore." The policemen looked at the pictures of the party and immediately identified the murderer.

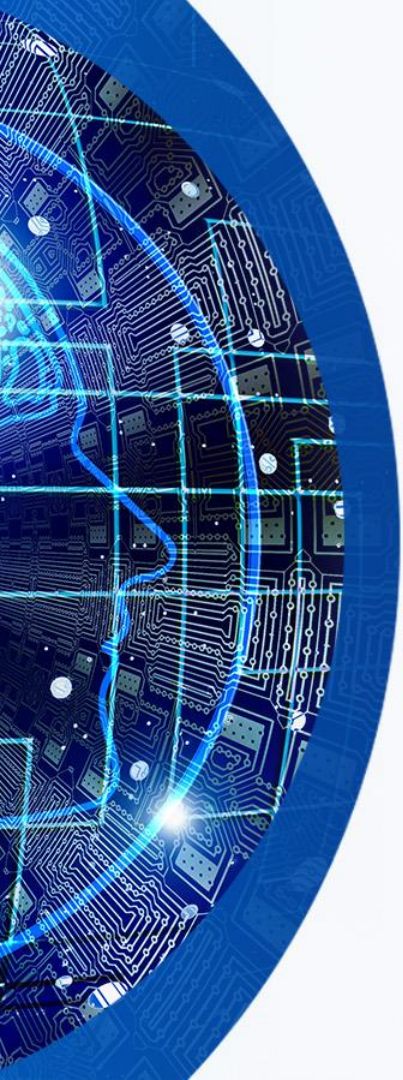


Decision Making

How do you make decisions

Scenario 2

The answer is Seema, can you guess how the police could tell? It's because she said she is on a diet and in the picture, she is eating a burger and fries which means she lied. The above scenarios show that it's the information which helps humans take good decisions.



How do machines become Artificially Intelligent?

- **Machines also become intelligent once they are trained with some information which helps them achieve their tasks.**
- **AI machines also keep updating their knowledge to optimize their output.**



Applications of Artificial Intelligence around us

- Google

we surf the internet for things on Google without realizing how efficiently Google always responds to us with accurate answers. Not only does it come up with results to our search in a matter of seconds, it also suggests and auto corrects our typed sentences.

- Siri

pocket assistants that can do a lot of tasks at just one command. Alexa, Google Assistant, Cortana, Siri are some very common examples of the voice assistants which are a major part of our digital devices.



Applications of Artificial Intelligence around us

- Google maps

To help us navigate to places, apps like UBER and Google Maps come in Haman. Thus, one no longer needs to stop repeatedly to ask for directions.

- Netflix, Amazon, Spotify

- Social media platforms with apps like Facebook and Instagram

- Chatbots and other health apps

AI is also being used to monitor our health. A lot of chatbots and other health apps are available, which continuously monitor the physical and mental health of its Users.

- Humanoids like Sophia,



What is not AI?

Today, because there are so many different technologies all around us, we frequently mistake any other technology for artificial intelligence. Because of this, we must clearly define what constitutes AI and what does not.

What is not AI?

Washing Machine – A fully automatic washing machine can function on its own, but choosing the washing parameters and making the necessary preparations before each wash require human participation, making the machine an example of automation rather than AI.

Air Conditioner – The internet can be used to remotely turn on and off an air conditioner, but it still requires a human touch.

