

AI Value & Business Case


Lesson 1: Introduction-Decision Making-AI

Topic 1: WHY, When, What, Where and Who



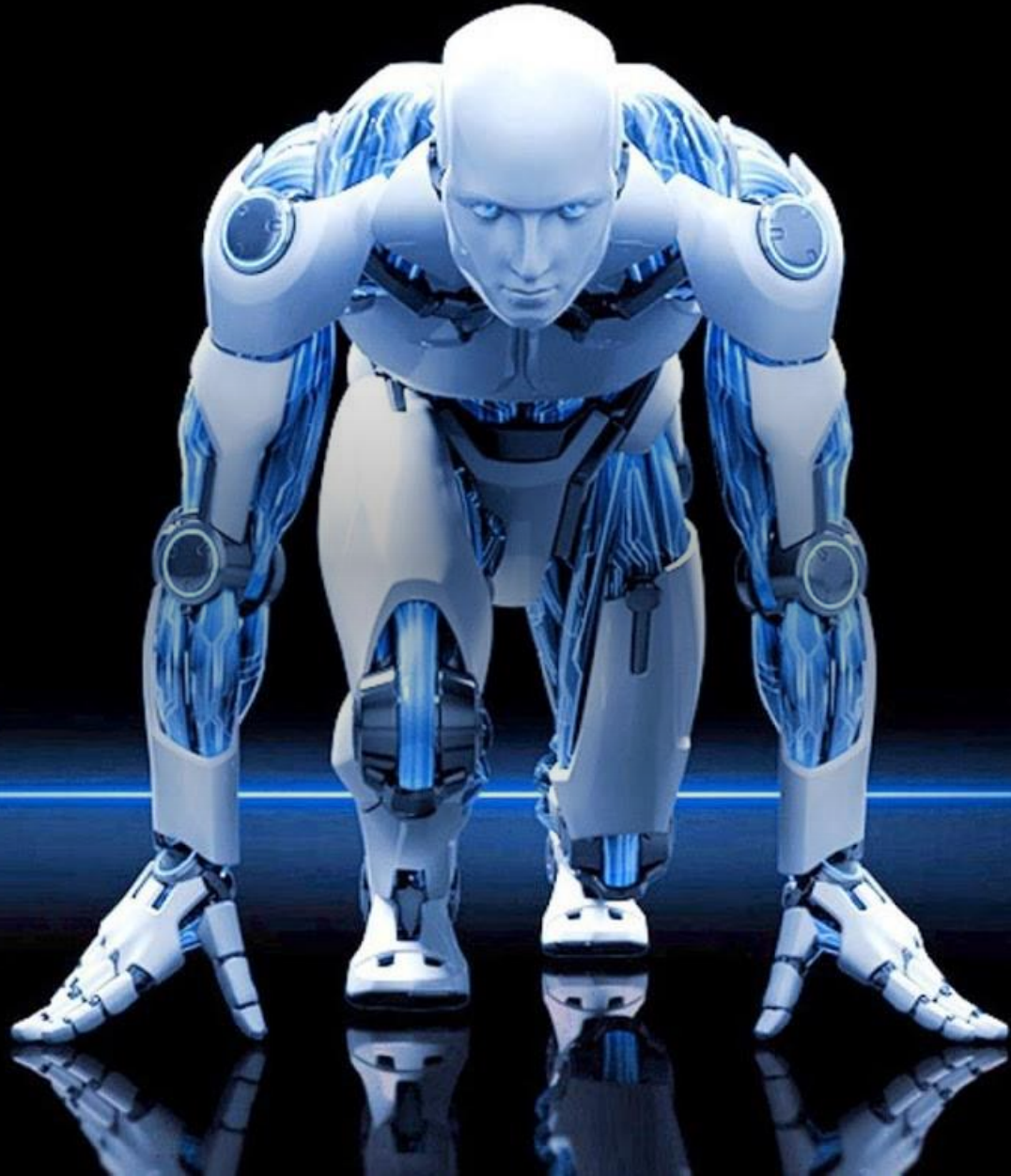
Why
**Artificial
Intelligence**
Is Important?

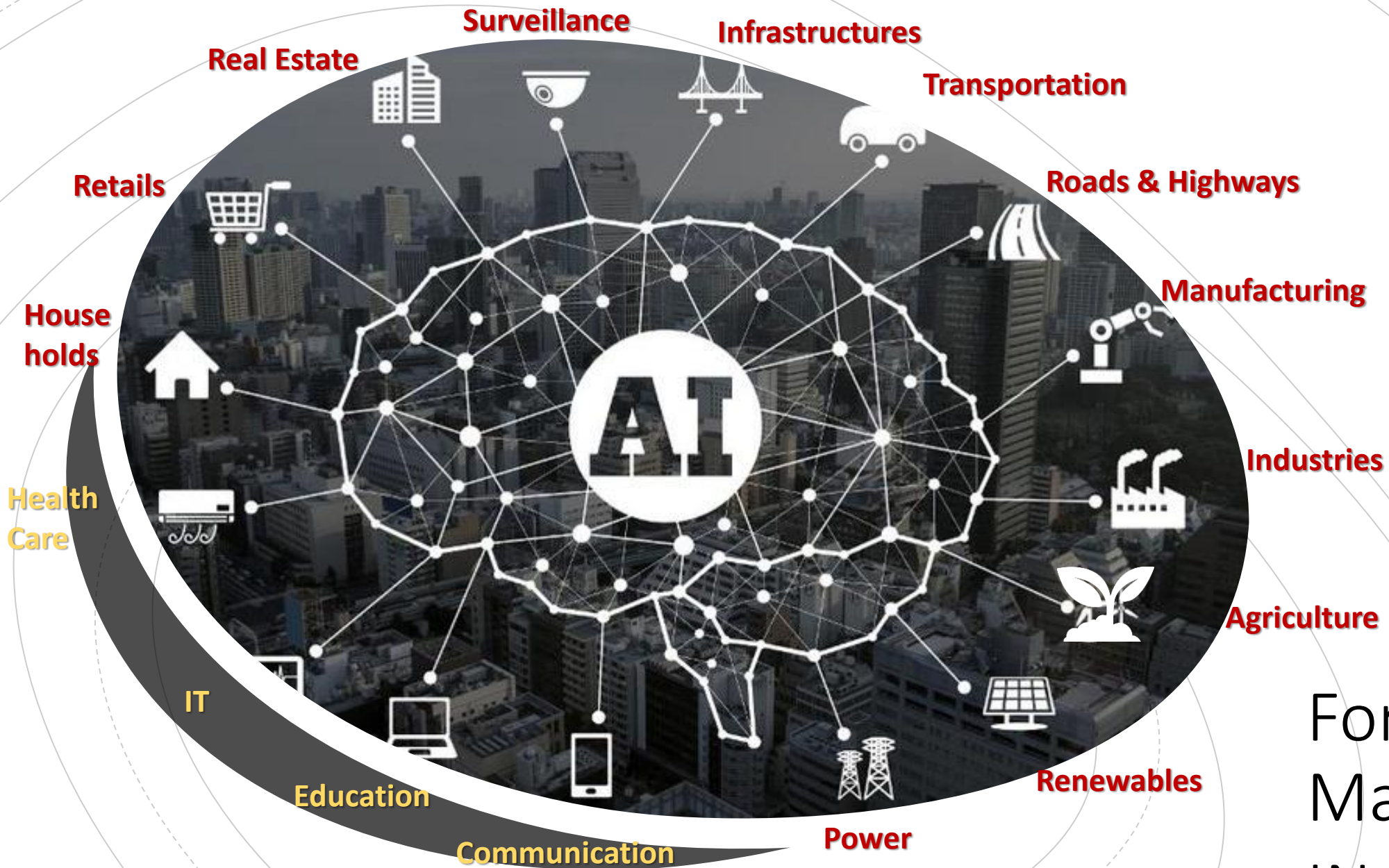


A humanoid robot with a white and grey body and a helmet-like head is shown in profile, looking out a large window. The window reveals a blurred city skyline at night. The robot's right hand is raised towards its face. The overall scene is dimly lit, with the primary light source being the city lights outside.

AI is the latest
technology that
augments decision
making process.

Where do we Run AI For Decision Making





For Decision
Making
IN

Decision Making??

A Process of
choosing between
alternatives
To tackle a
problem



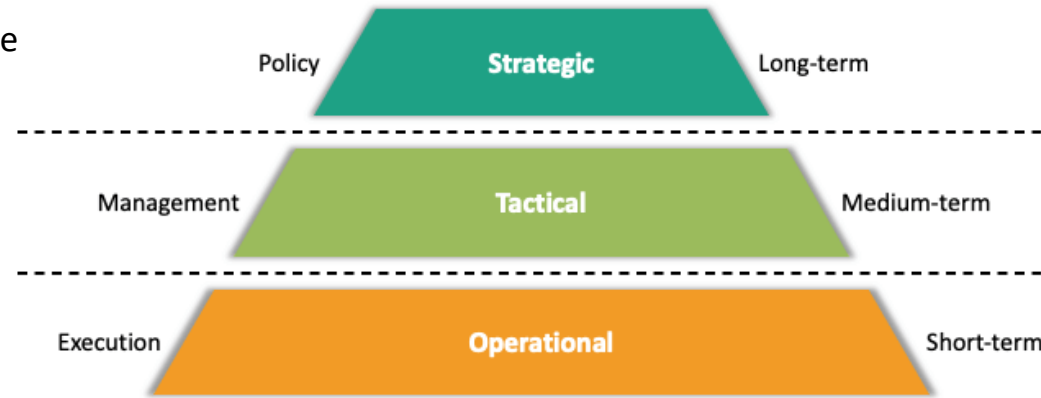
Healthcare: Communicable Disease

Socio economic or Environmental Perspective

Targeted preventive measures in locations or beneficiaries

Monitor Disease Progression, Hospital Preparedness, Manage supplies etc

Strategic Tactical
Operational



Football Capacity Improvement

Location wise or Age wise soccer capacity development

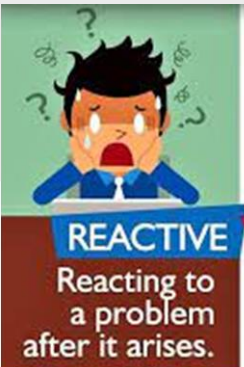
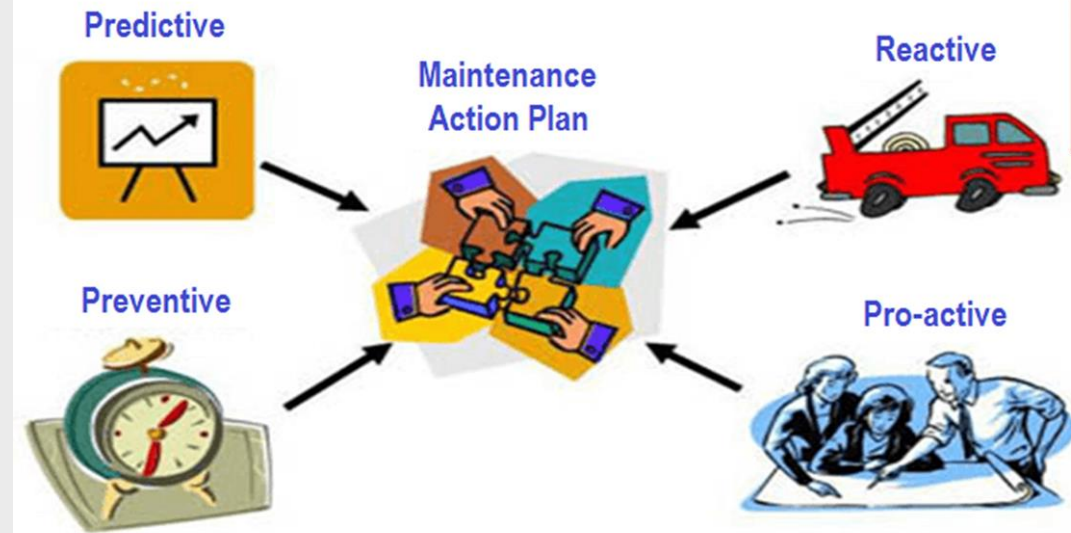
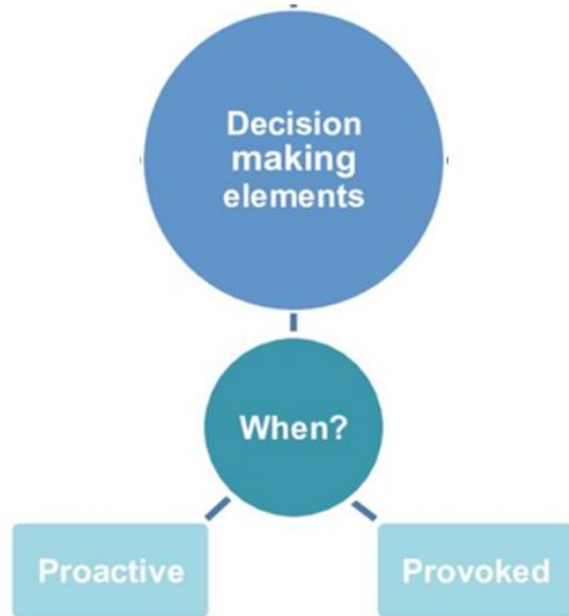
Targeted Infrastructure development and fund distribution

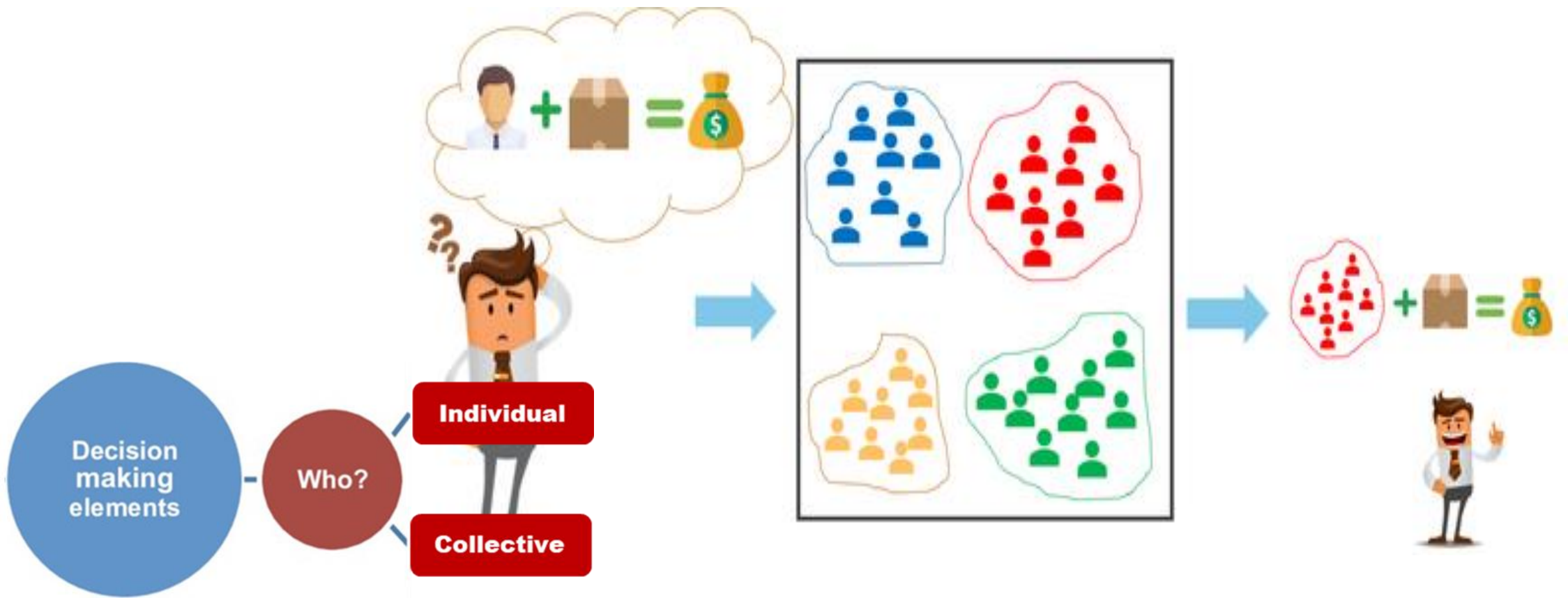
Monitor Progress, Diagnose Problem, solve and appropriate fund



What??

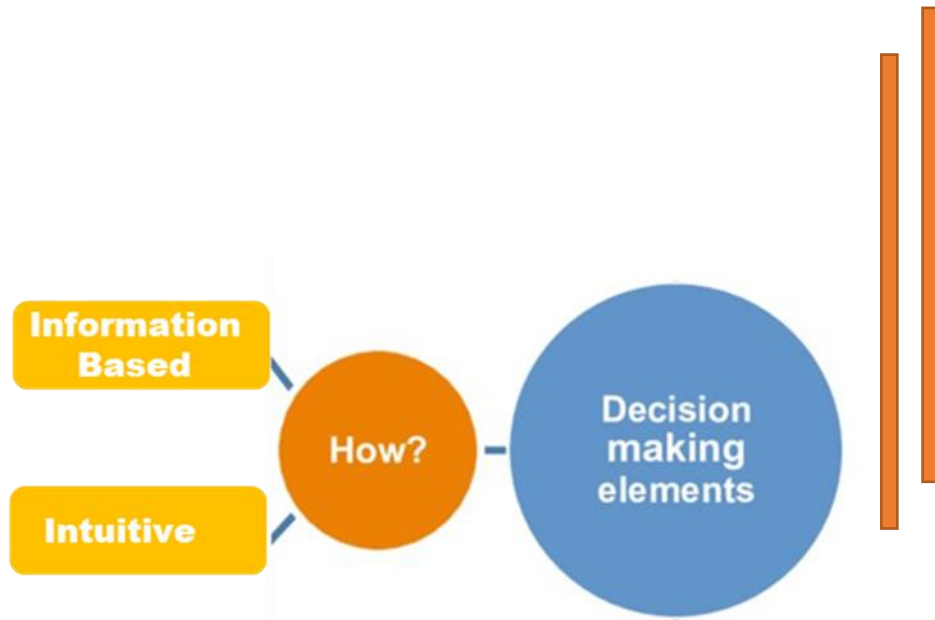
When??





Who or Which??

How??



AI

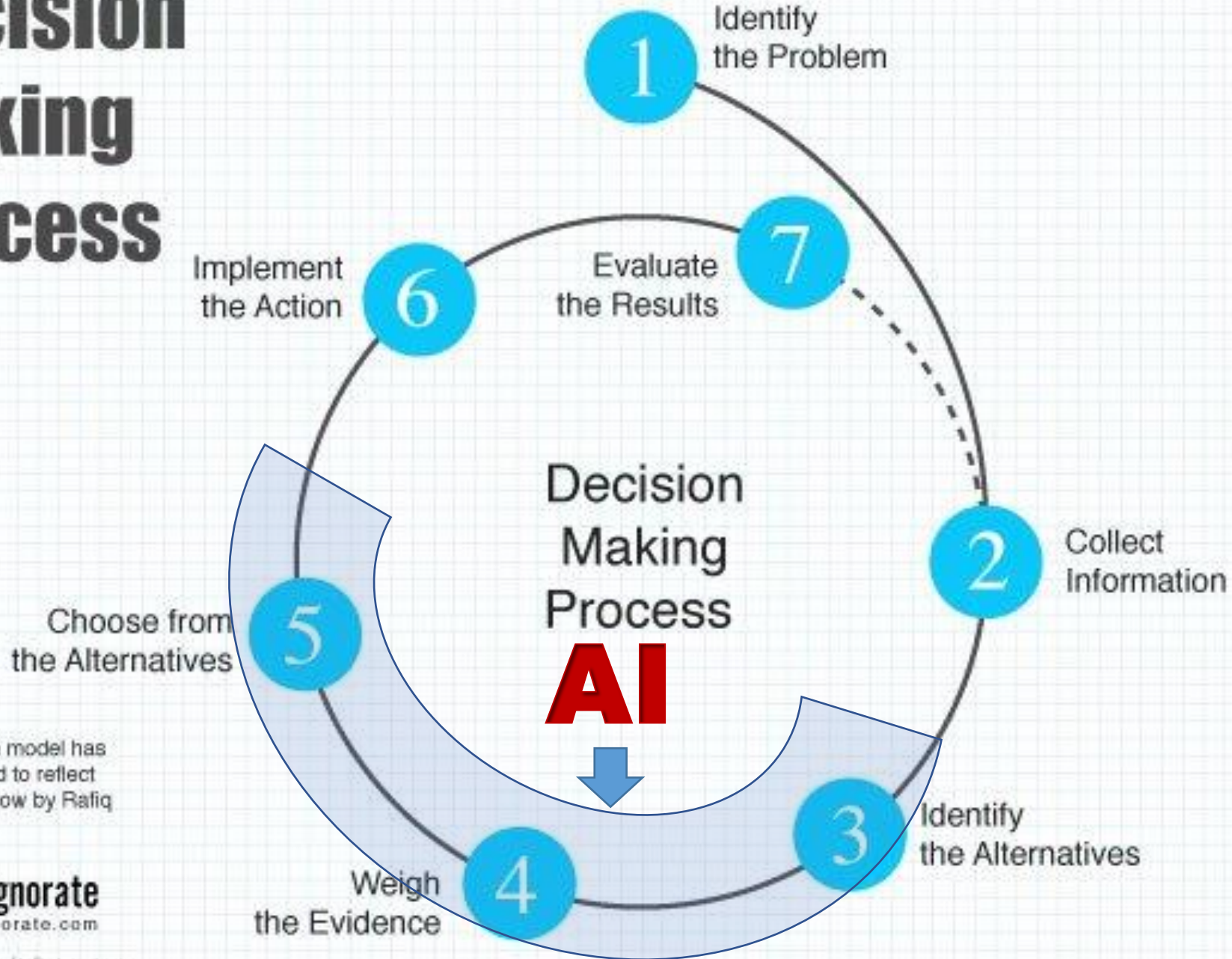
- Processes information in a linear, sequential, logical manner
- Uses information piece by piece to solve problem
- When reading/listening look for pieces to draw logical conclusions
- Decisions based on logical proof

Information Based

- Use intuition
- Get right answer to math problem, but not sure how you arrived at answer
- Start with answer and work backwards
- Decisions based on feelings

Intuitive

Decision Making Process



Where AI Helps in Decision Making Process

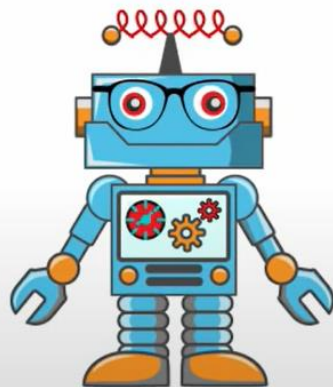
This common model has been modified to reflect the iterative flow by Rafiq Elmansy.



WHAT IS A.I.?

When Machine Does These
We Call it

Artificial



Intelligence

Understand

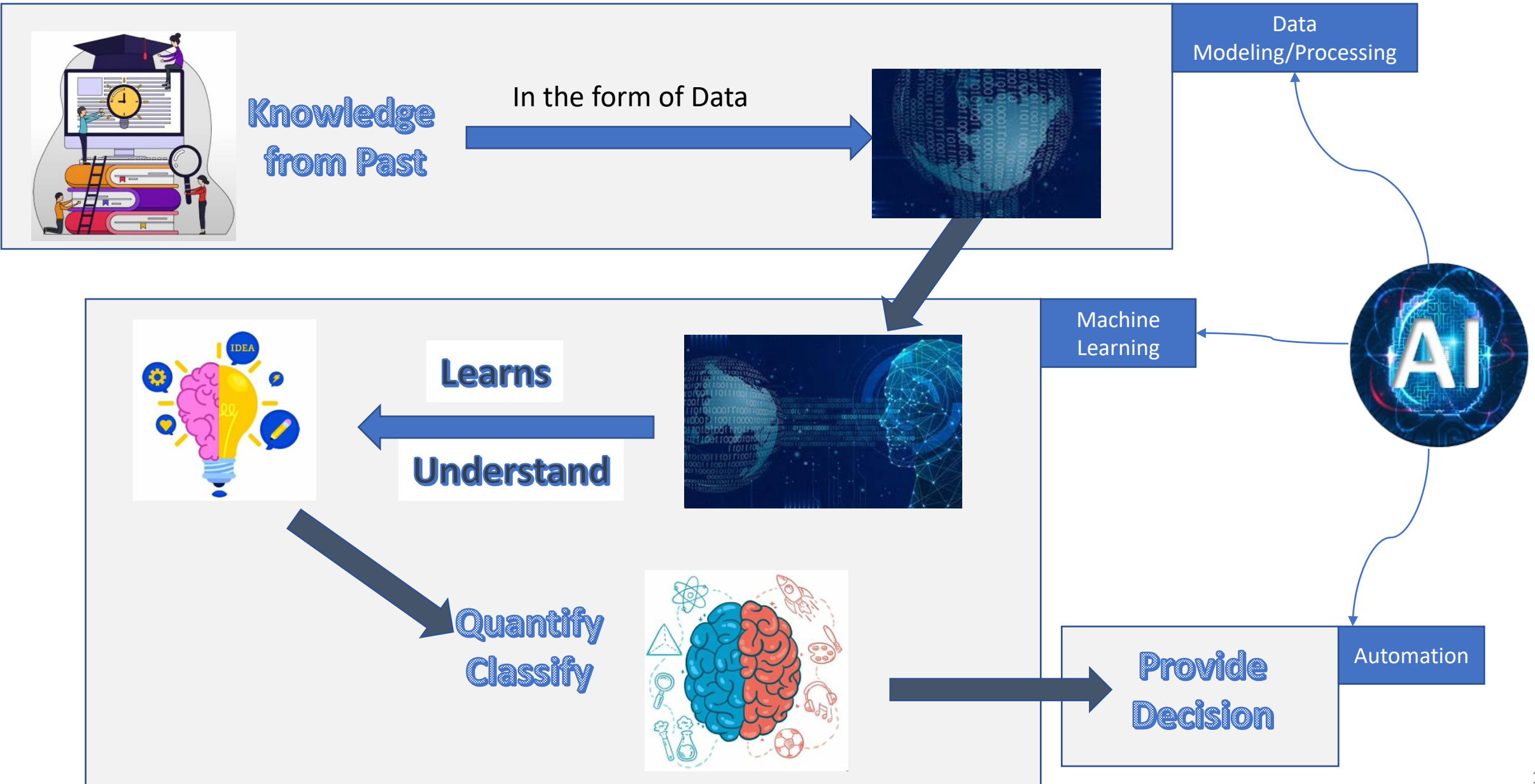


Think



Experience

How AI Works!!

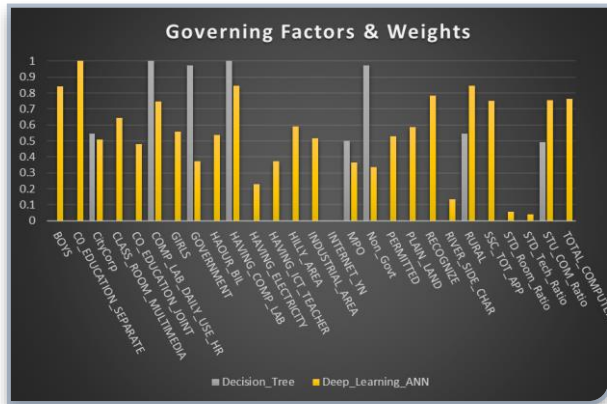


is a process of creating intelligence for decision making by extracting knowledge from history, where learning is done by machine instead of human

ARE MATHEMATICAL ALGORITHMS
THAT HELPS LEARNING FROM
HISTORY, EXTRACT KNOWLEDGE
THEN EITHER CLASSIFIES OR
QUANTIFIES



Machine Learnings are Mathematical Algorithm that works like Human thinking process Can do following.



Variable Importance/ Feature Importance

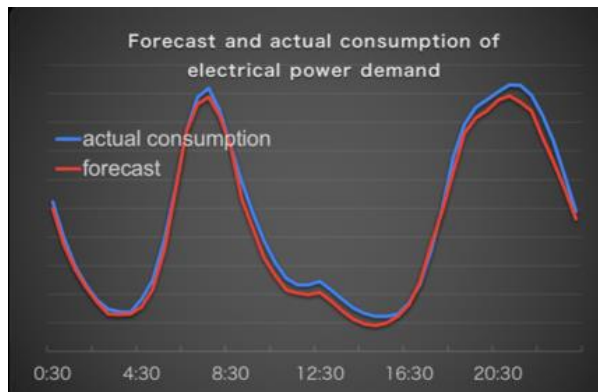
Identify important reasons/factors

Low pass rate, high power demand, disease progression

Classification

Classify or Categorization of Elements

Classifies or identifies behaviors, products, people etc. that are similar



Quantification or Regression

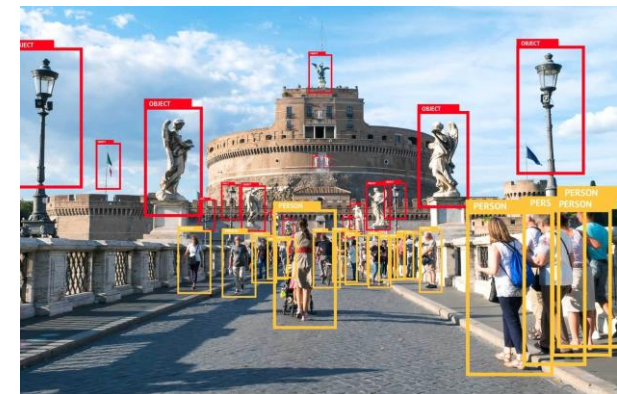
Predicts Number Or Forecasting

Demands, life-deaths, probability, performance

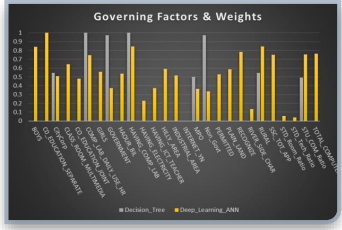
Pattern Recognition (Classification)

Recognizes from patterns from signal, images, videos or voices

Can detect anomaly in a signal or detect different patterns, Can recognize an object from image/video/voices



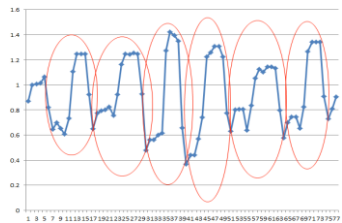
Machine Learnings are Mathematical Algorithm that works like Human thinking process



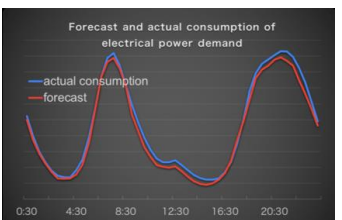
Feature Importance



Classification



Pattern Recognition

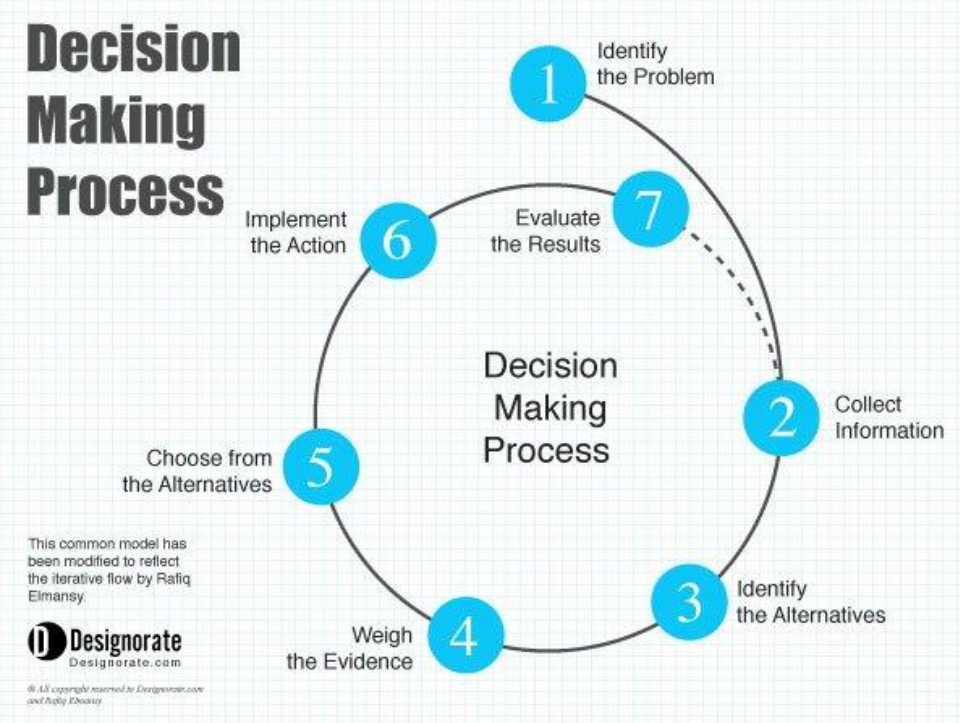


Regression

Intelligence AI provides

- Identifying root cause of a problem (How)
- Diagnosis of a problem in system (Who)
- Separate elements/phenomena in a system (Who)
- Quantifying time of a problem may occur (When)
- Quantifying the magnitude of a problem (How)

Such intelligence augments critical decision making in various business



Summary: AI augments decision making process

