ai design institute

Module 2 – AI driving exponential changes

Class 3 – Elements of AI

ARTIFICIAL INTELLIGENCE IS EVERYWHERE

- RECOMENDATION SYSTEM
- FACIAL RECOGNITION
- ANTI FRAUD SYSTEM
- CREDIT APPROVAL

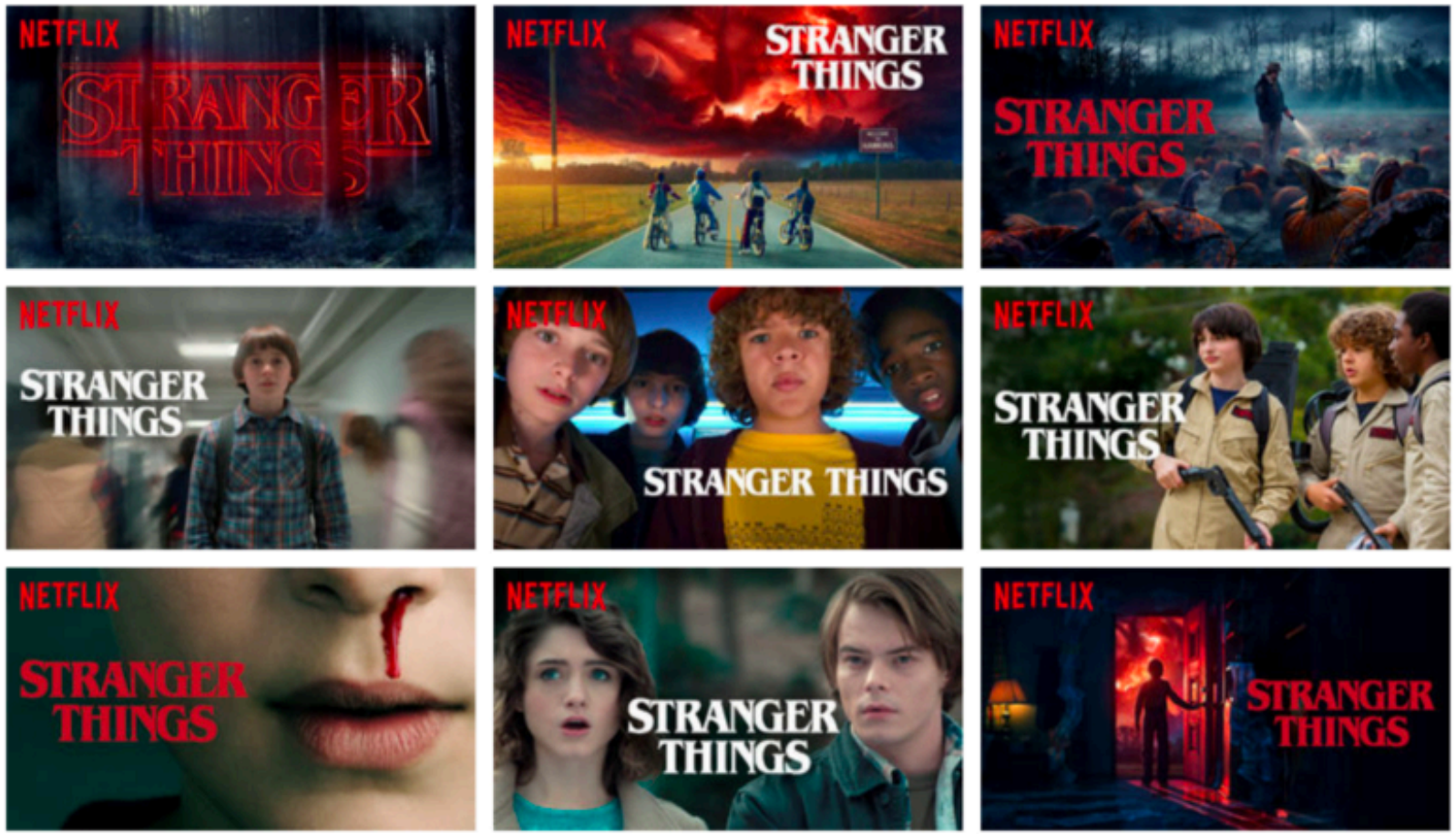
NEW TYPES OF INTERACTIONS

- NATURAL LANGUAGE INTERFACE
- UBIQUITOUS COMPUTING

NEW EXPERIENCES AND AGENCY

- NEW RECOMMENDATIONS
- BUBBLES AND CONTET LOOP
- PRIVACY AND SECURITY

NETFLIX EXAMPLE



A. M. Turing (1950) Computing Machinery and Intelligence. *Mind 49:* 433-460.

COMPUTING MACHINERY AND INTELLIGENCE

By A. M. Turing

1. The Imitation Game

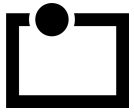
I propose to consider the question, "Can machines think?" This should begin with definitions of the meaning of the terms "machine" and "think." The definitions might be framed so as to reflect so far as possible the normal use of the words, but this attitude is dangerous, If the meaning of the words "machine" and "think" are to be found by examining how they are commonly used it is difficult to escape the conclusion that the meaning and the answer to the question, "Can machines think?" is to be sought in a statistical survey such as a Gallup poll. But this is absurd. Instead of attempting such a definition I shall replace the question by another, which is closely related to it and is expressed in relatively unambiguous words.

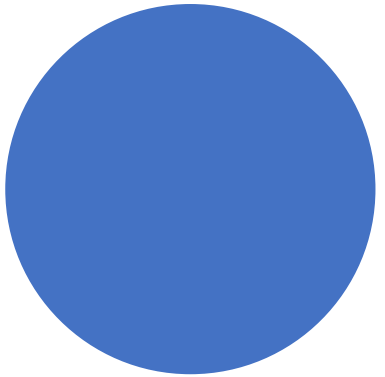
The new form of the problem can be described in terms of a game which we call the 'imitation game." It is played with three people, a man (A), a woman (B), and an interrogator (C) who may be of either sex. The interrogator stays in a room apart front the other two. The object of the game for the interrogator is to determine which of the other two is the man and which is the woman. He knows them by labels X and Y, and at the end of the game he says either "X is A and Y is B" or "X is B and Y is A." The interrogator is allowed to put questions to A and B thus:

C: Will X please tell me the length of his or her hair?

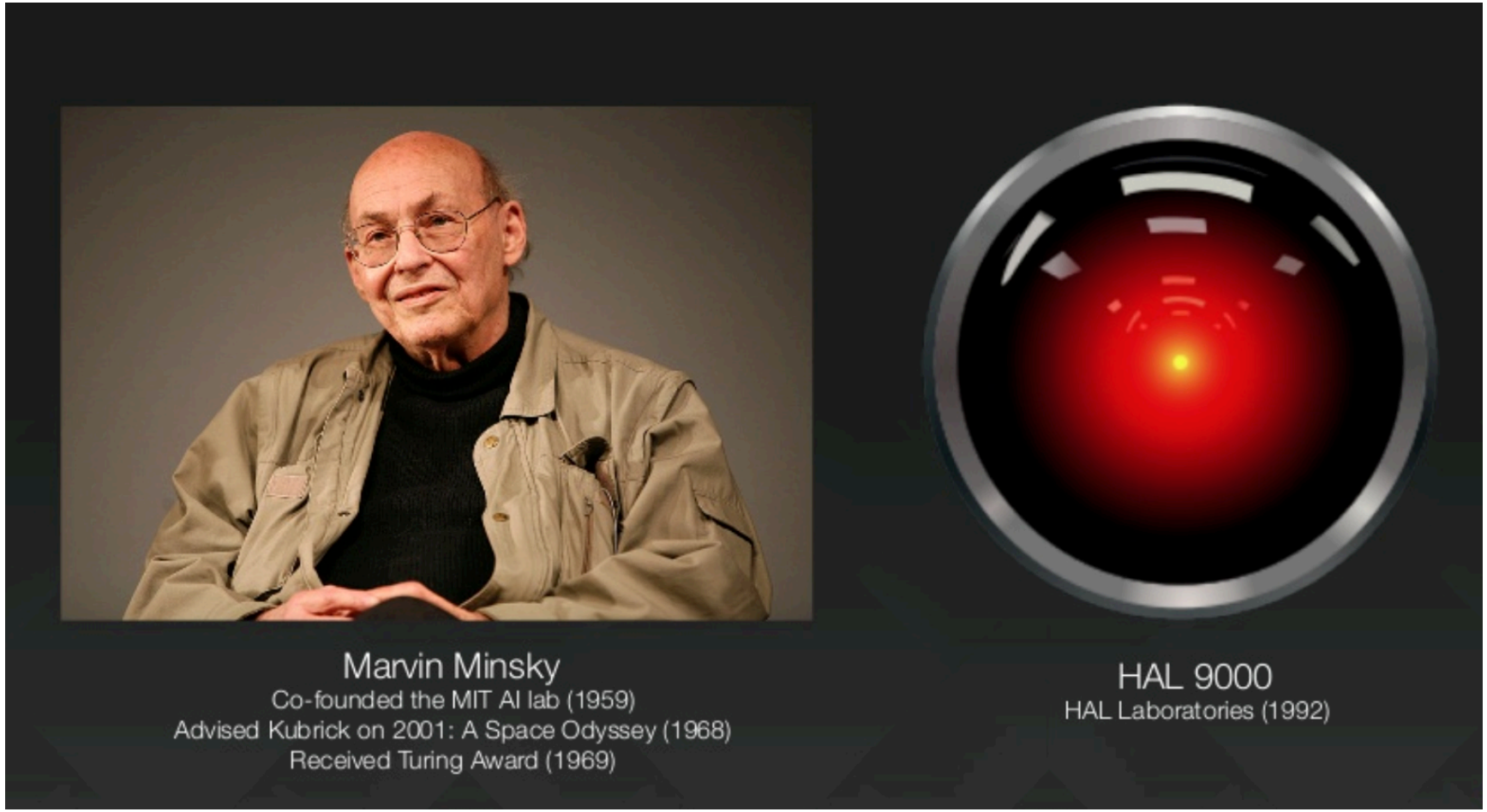
Now suppose X is actually A, then A must answer. It is A's object in the game to try and cause C to make the wrong identification. His answer might therefore be:

"My hair is shingled, and the longest strands are about nine inches long."



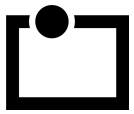


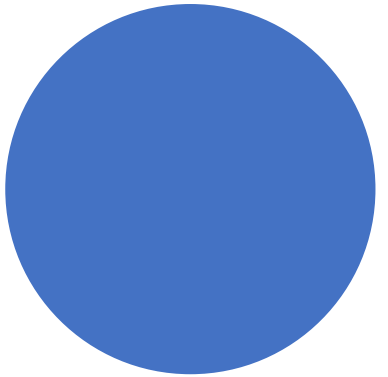

IN THIS BUILDING DURING THE SUMMER OF 1956
JOHN McCARTHY (DARTMOUTH COLLEGE), MARVIN L. MINSKY (MIT)
NATHANIEL ROCHESTER (IBM), AND CLAUDE SHANNON (BELL LABORATORIES)
CONDUCTED
THE DARTMOUTH SUMMER RESEARCH PROJECT
ON ARTIFICIAL INTELLIGENCE
FIRST USE OF THE TERM "ARTIFICIAL INTELLIGENCE"
FOUNDING OF ARTIFICIAL INTELLIGENCE AS A RESEARCH DISCIPLINE
"To proceed on the basis of the conjecture
that every aspect of learning or any other feature of intelligence
can in principle be so precisely described that a machine can be made to simulate it."
IN COMMEMORATION OF THE PROJECT'S 50th ANNIVERSARY
JULY 13, 2006


Marvin Minsky
Co-founded the MIT AI lab (1959)
Advised Kubrick on 2001: A Space Odyssey (1968)
Received Turing Award (1969)
HAL 9000
HAL Laboratories (1992)

THERE IS NO GENERAL AI

AI DOES NOT KNOW THE PROBLEM IT COULD SOLVE

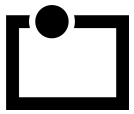




INTELIGÊNCIA ARTIFICIAL

BASEADA EM CONHECIMENTO

APRENDIZADO ESTATÍSTICO



SPEECH RECOGNITION

“I ATE AN APPLE”

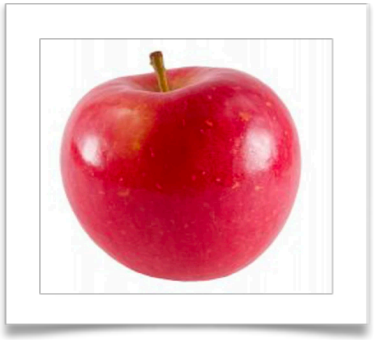


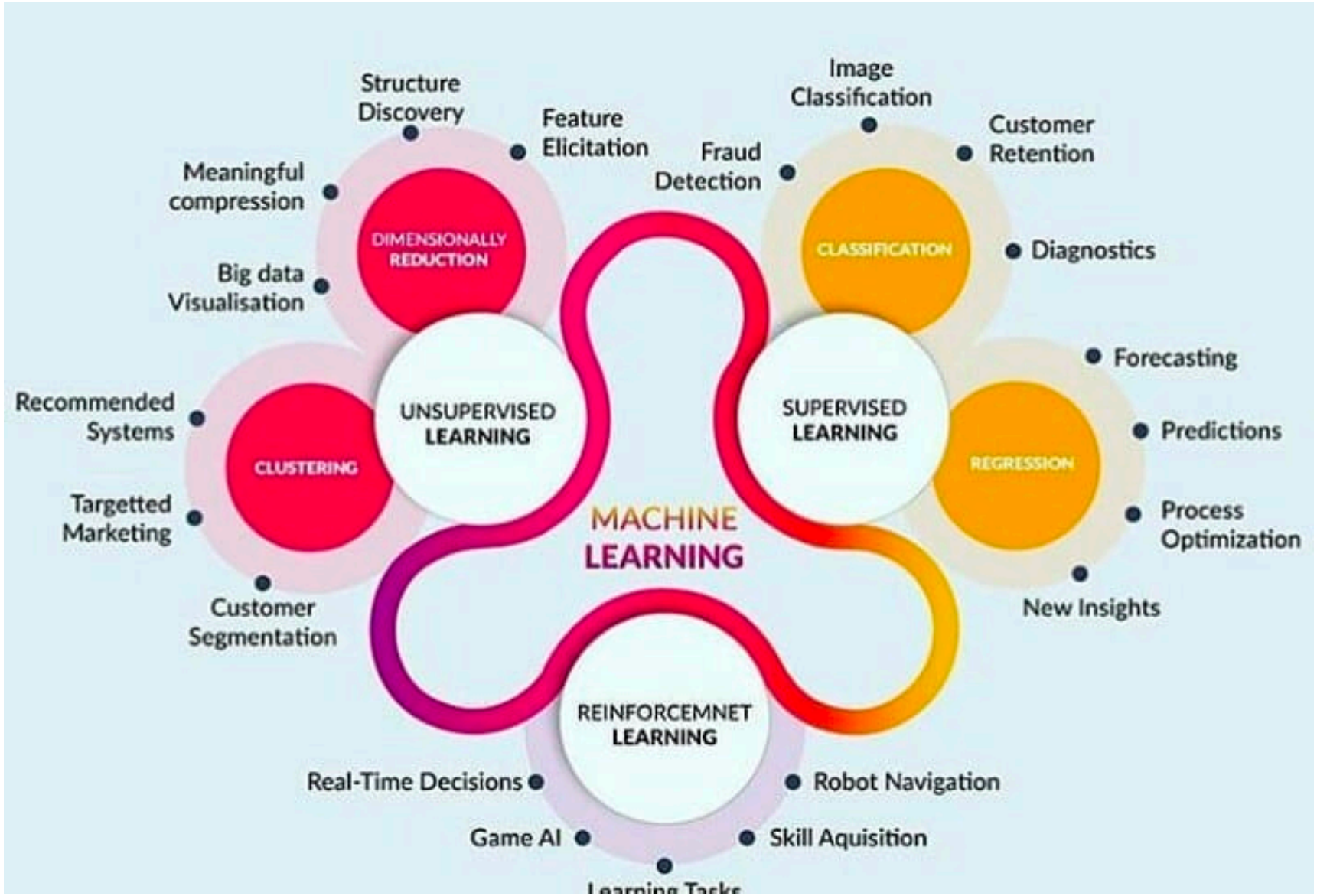
IMAGE RECOGNITION

APPLE

“APPL..”

NLP

“APPLE”


MACHINE LEARNING
UNSUPERVISED LEARNING
SUPERVISED LEARNING
REINFORCEMNET LEARNING
DIMENSIONALLY REDUCTION
CLUSTERING
CLASSIFICATION
REGRESSION
Structure Discovery
Feature Elicitation
Meaningful compression
Big data Visualisation
Image Classification
Customer Retention
Fraud Detection
Diagnostics
Recommended Systems
Targetted Marketing
Customer Segmentation
Forecasting
Predictions
Process Optimization
New Insights
Real-Time Decisions
Robot Navigation
Game AI
Skill Aquisition
Learning Tasks

READING TIME!!!