History of AI

Dosen Pengampu:

Mata Kuliah :

Pertemuan ke :

History of AI

Capaian Pembelajaran

Mahasiswa mengetahui sejarah serta perkembangan AI

Capaian pembelajaran pada minggu ke-2 ini adalah mahasiswa mengetahui sejarang dan perkembangan AI.

Untuk mencapai capaian tersebut, materi ini akan dimulai dengan perkembangan teknologi terlebih dahulu, kemudian baru sejarah dan perkembangan AI.

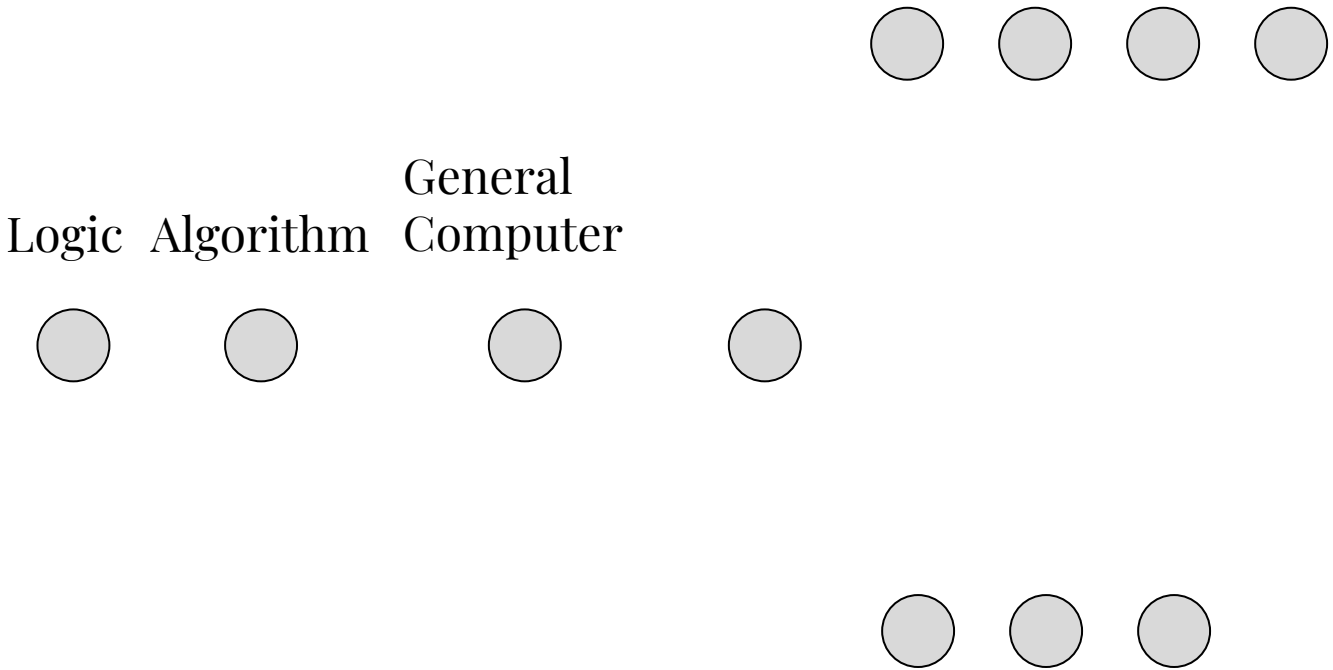
Point of Views

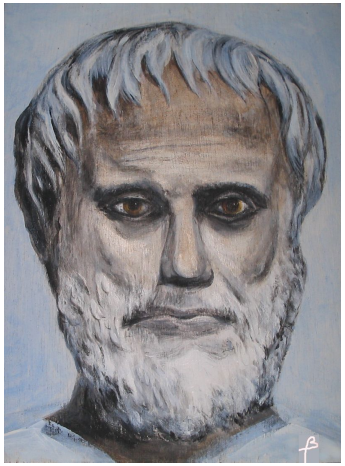
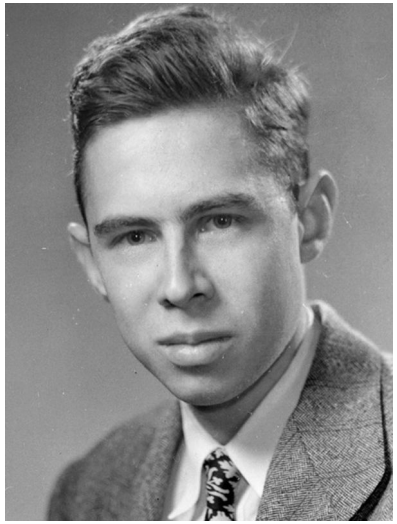
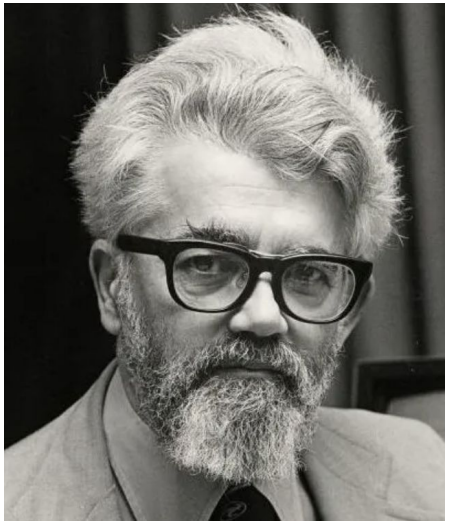
- History of Technology
- History of AI
  - Before general computer birth
  - Knowledge by expert
  - Knowledge by data

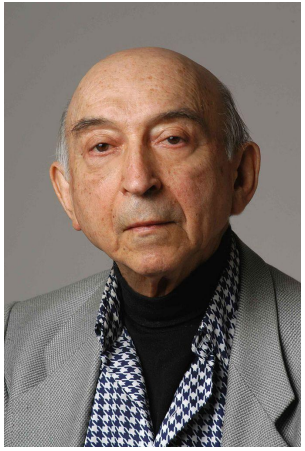
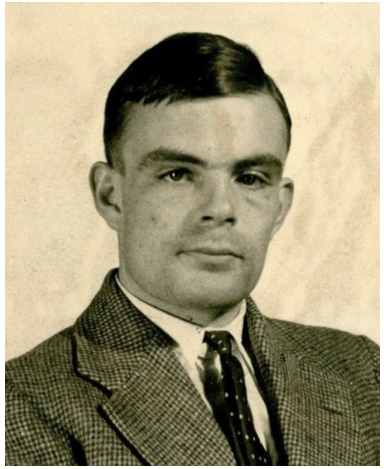
History of Technology

KEEP CLEAR
KEEP CLEAR

History of AI

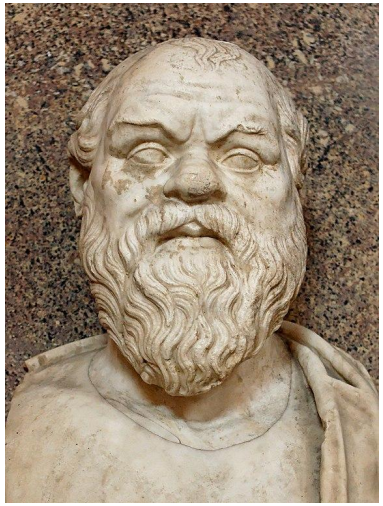

Logic
Algorithm
General
Computer

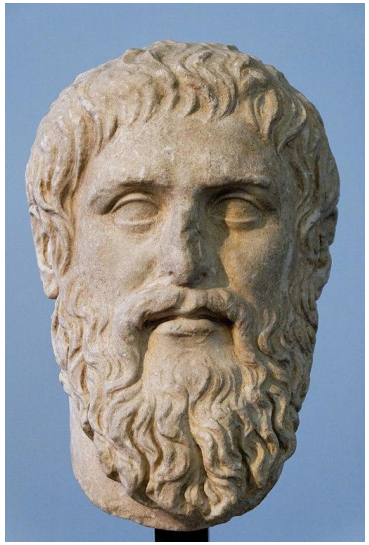



Ancient Greek Philosophy

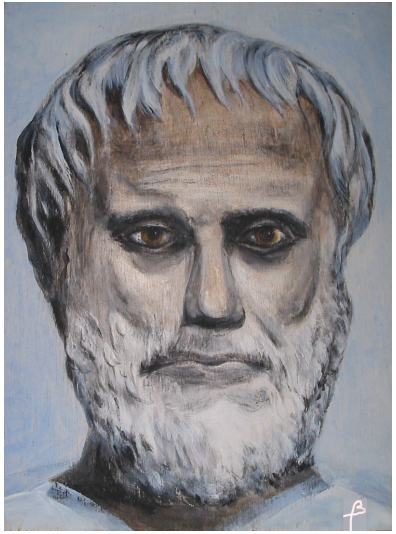
Socrates



Plato



Aristotles



COMMON
SENSE
LOGIC

1. Penalaran Deduktif:

Premis 1: Semua manusia adalah fana.
Premis 2: Socrates adalah manusia.
Kesimpulan: Socrates adalah fana.

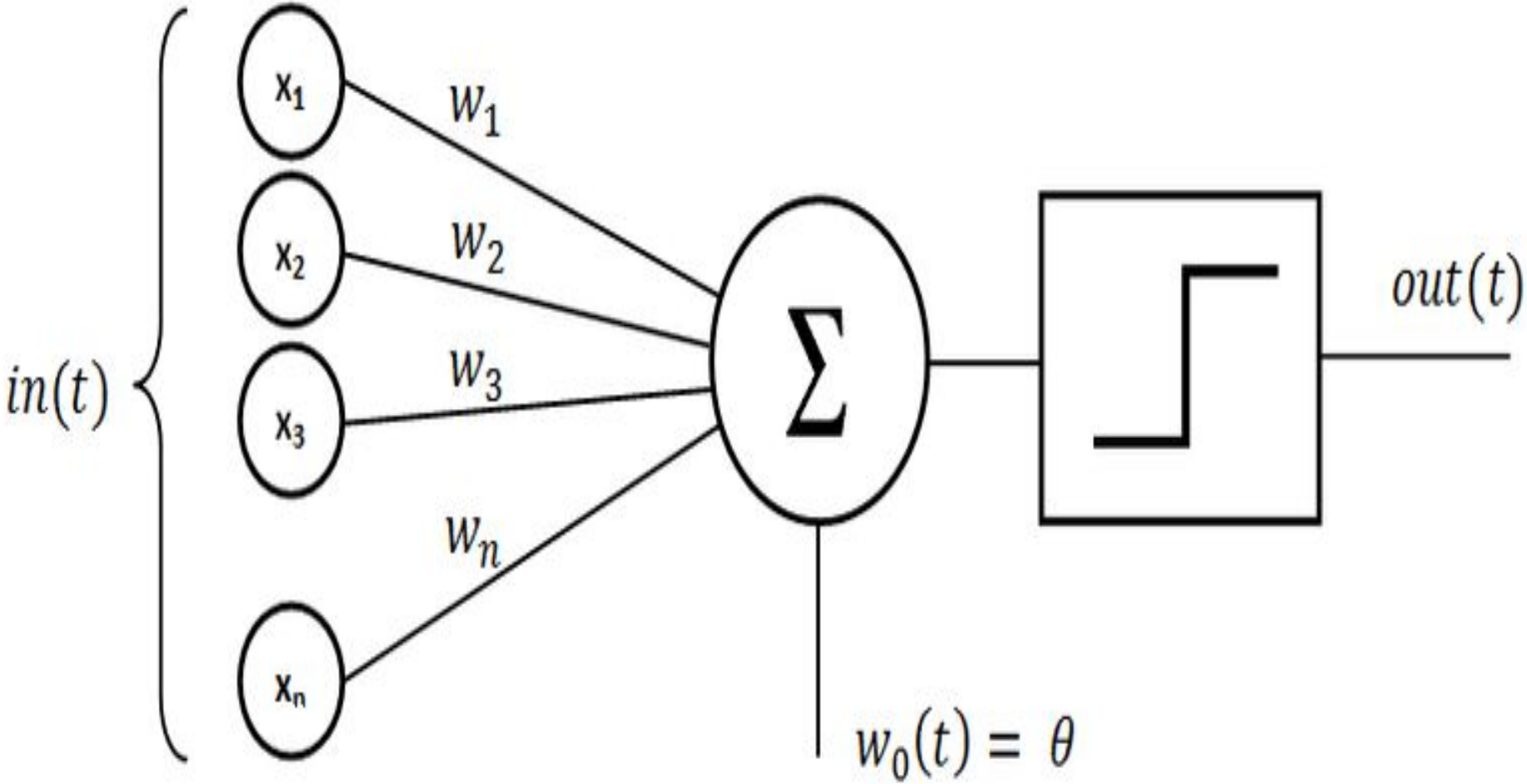
2. Silogisme Kategoris:

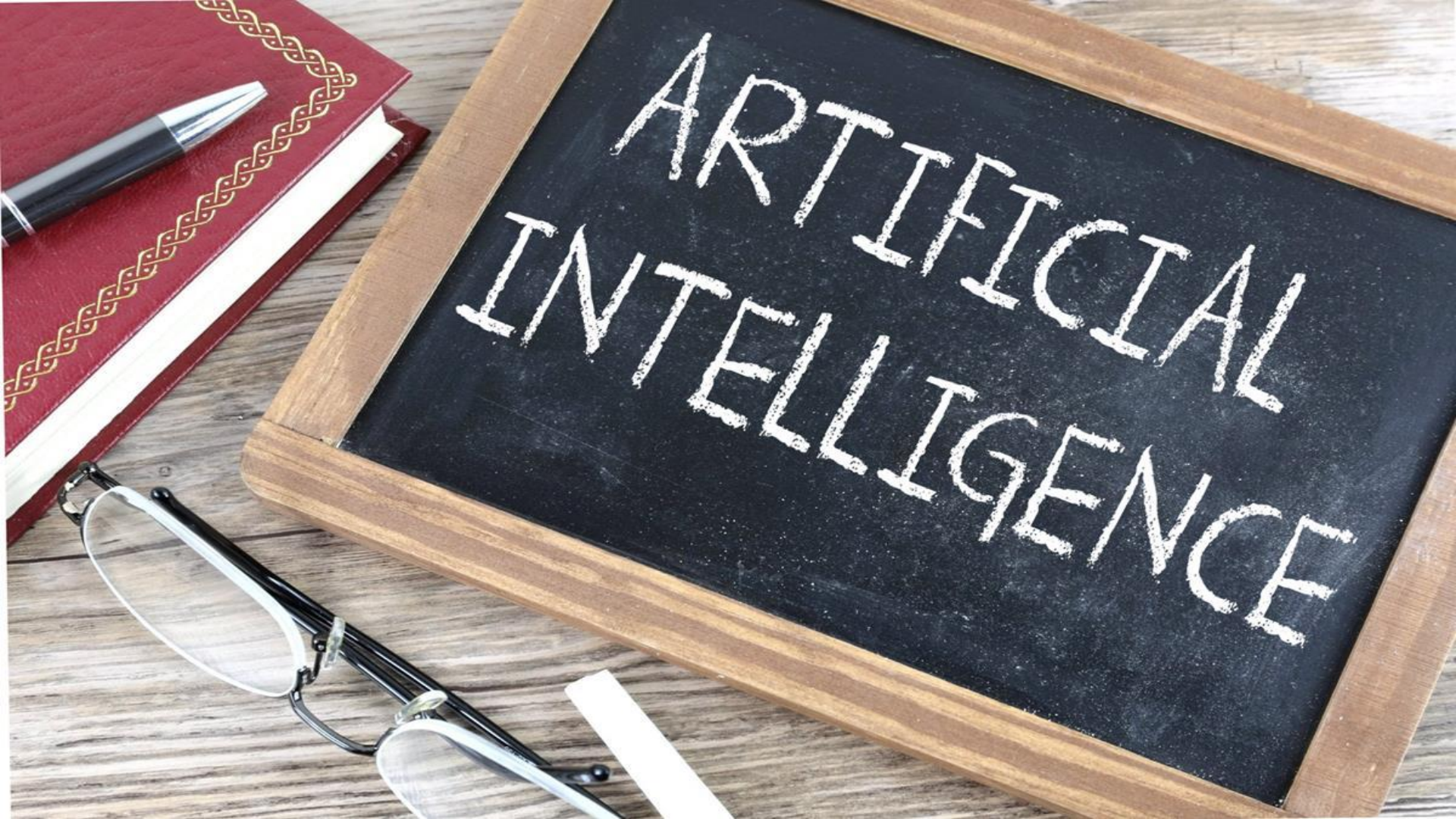
Premis 1: Semua burung memiliki bulu.
Premis 2: Penguin tidak memiliki bulu.
Kesimpulan: Penguin bukan burung.

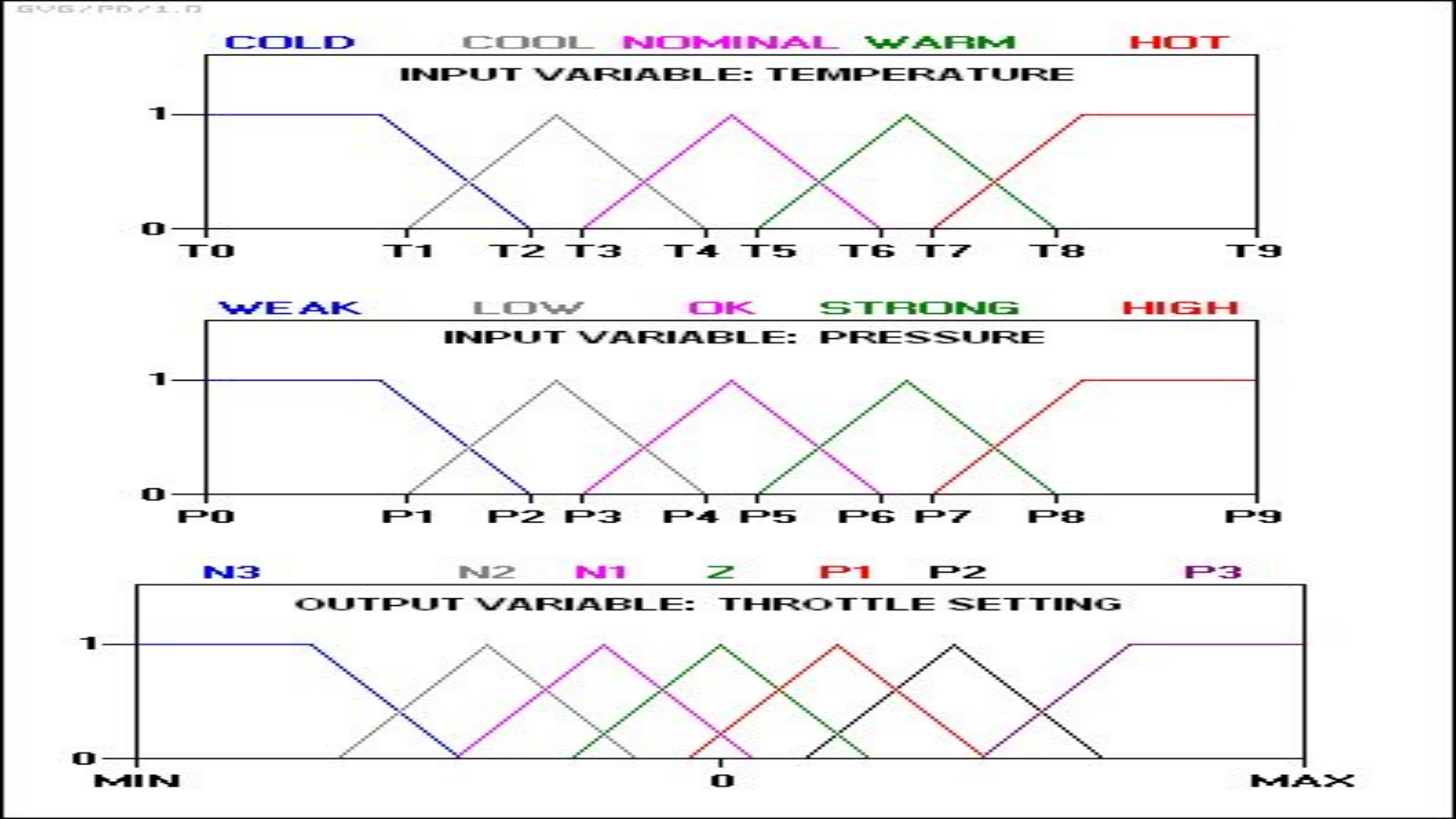
3. Silogisme Hipotesis:

Premis 1: Jika hari hujan, maka jalan akan basah.
Premis 2: Jalan basah.
Kesimpulan: Hari hujan.

ALGORITHM


in(t)
x1
x2
x3
xn
w1
w2
w3
wn
Σ
w0(t) = θ
out(t)


ARTIFICIAL
INTELLIGENCE


COLD
COOL
NOMINAL
WARM
HOT
INPUT VARIABLE: TEMPERATURE
1
0
T0
T1
T2
T3
T4
T5
T6
T7
T8
T9
WEAK
LOW
OK
STRONG
HIGH
INPUT VARIABLE: PRESSURE
1
0
P0
P1
P2
P3
P4
P5
P6
P7
P8
P9
N3
N2
N1
Z
P1
P2
P3
OUTPUT VARIABLE: THROTTLE SETTING
1
0
MIN
0
MAX

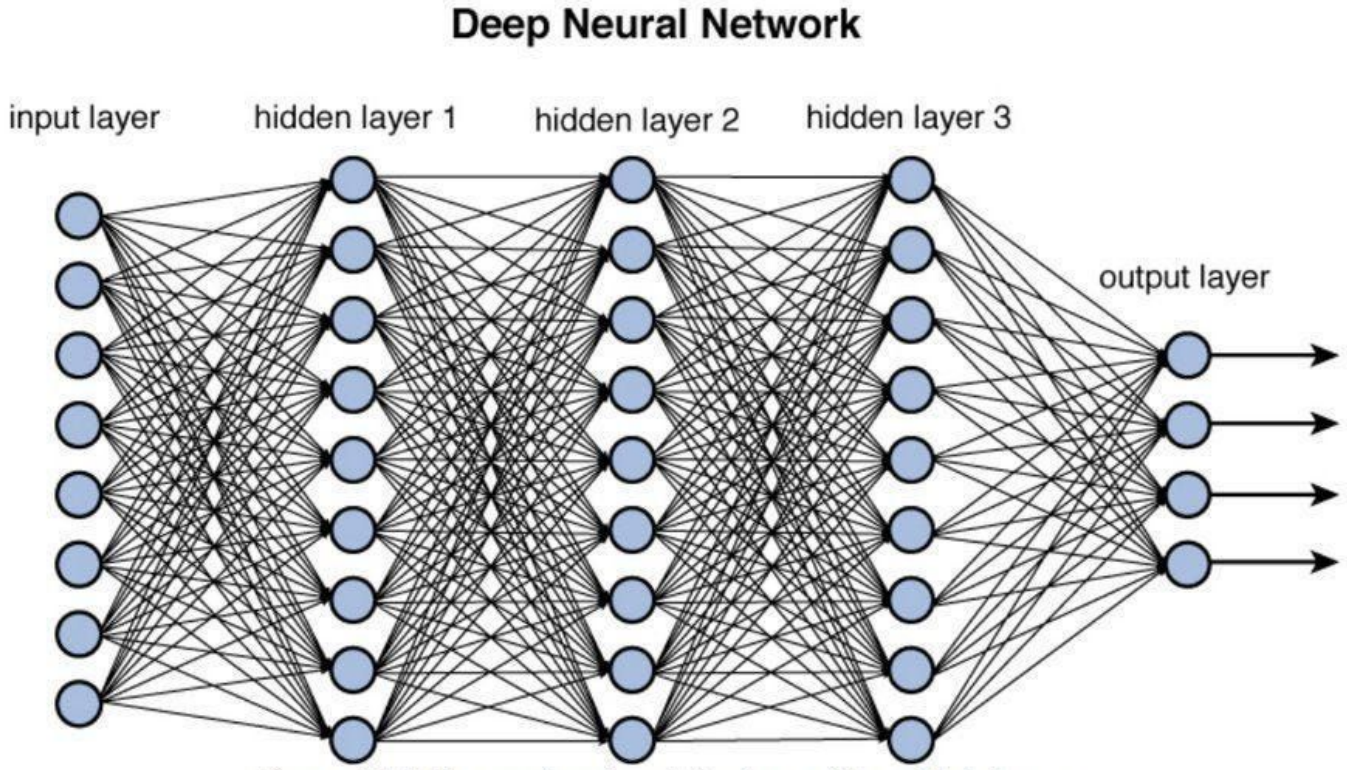
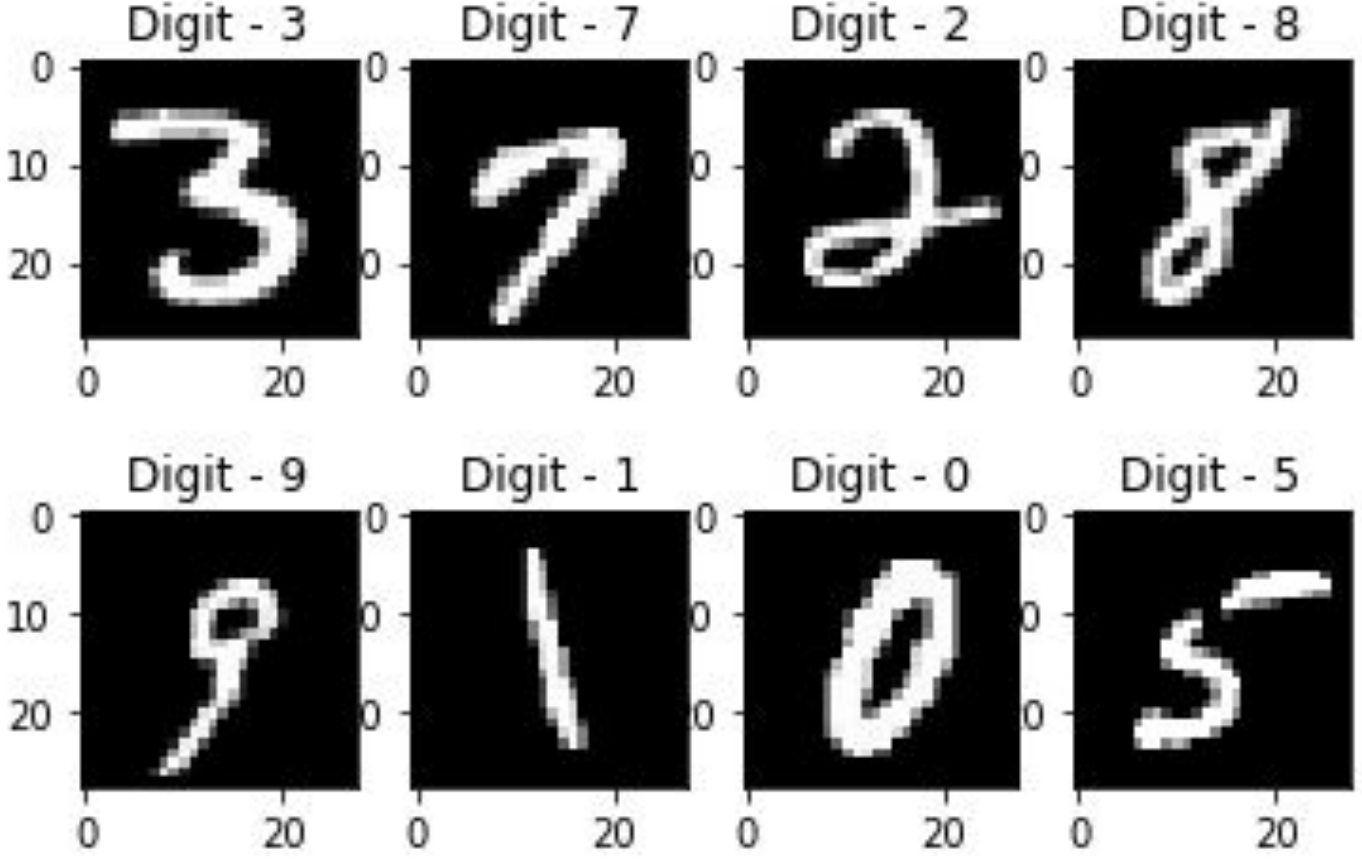
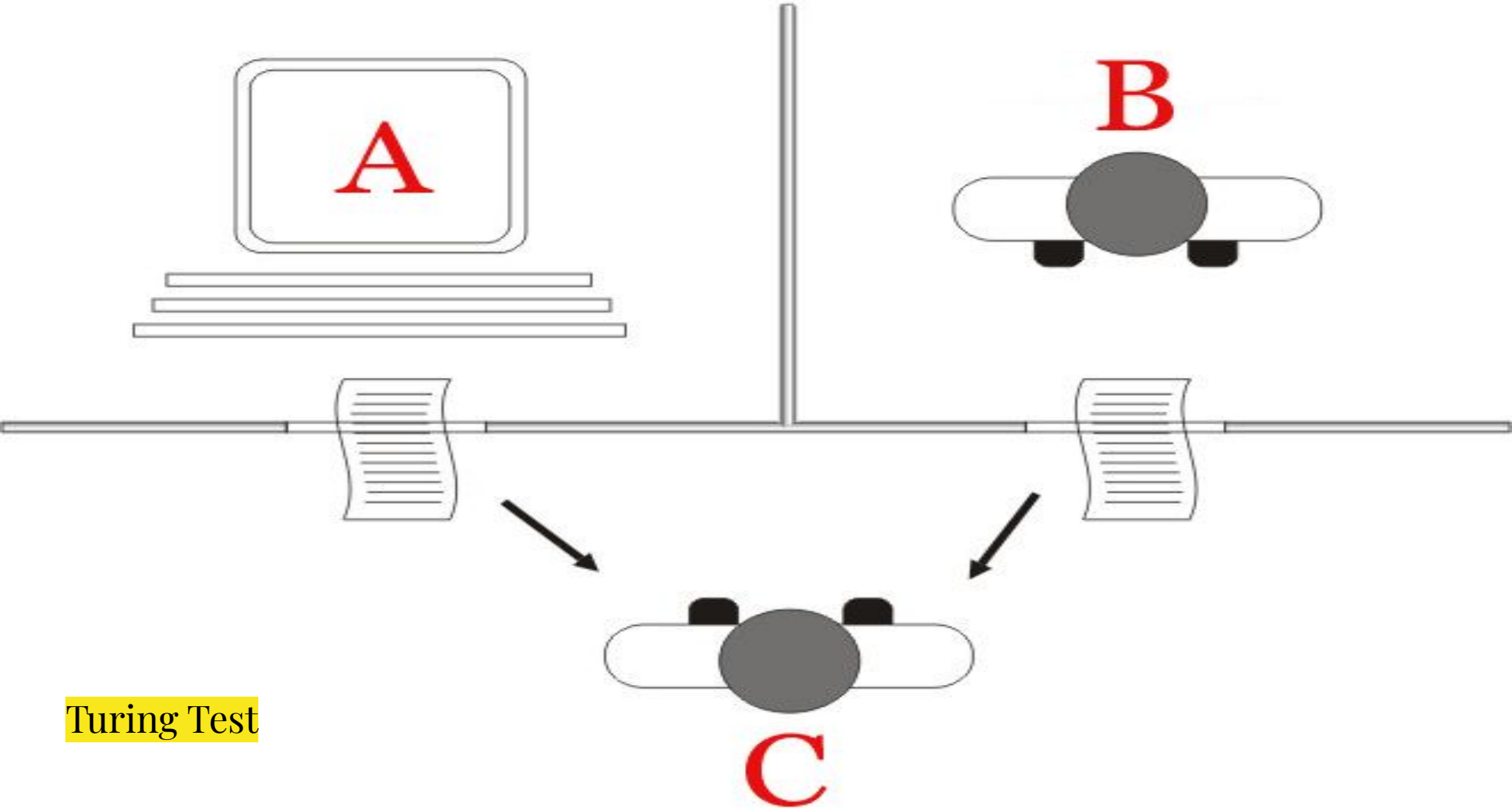


Figure 12.2 Deep network architecture with multiple layers.


Digit - 3
Digit - 7
Digit - 2
Digit - 8
Digit - 9
Digit - 1
Digit - 0
Digit - 5
0
10
20
0
20

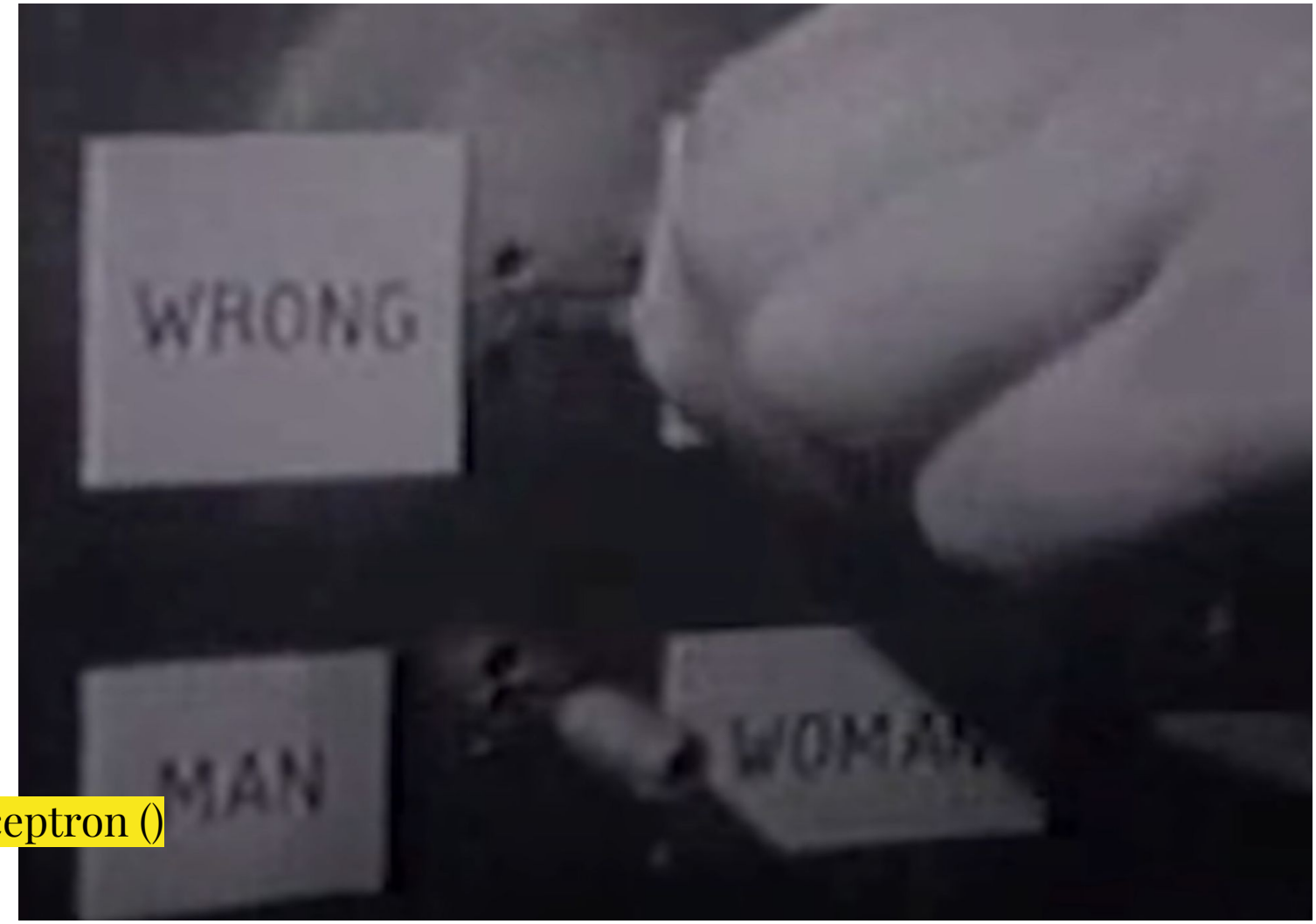
The Birth of General Computer (1940)

Enigma Breaker



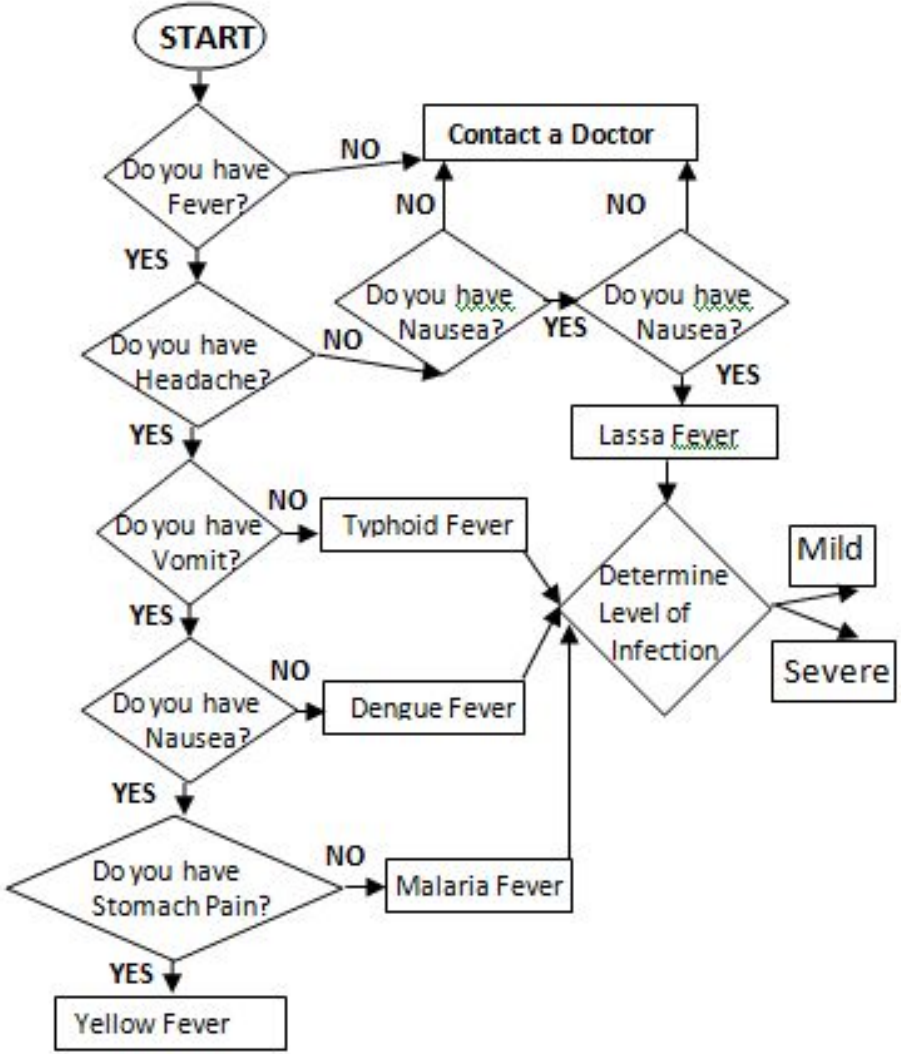
Turing Test

First Neural Set (1957)

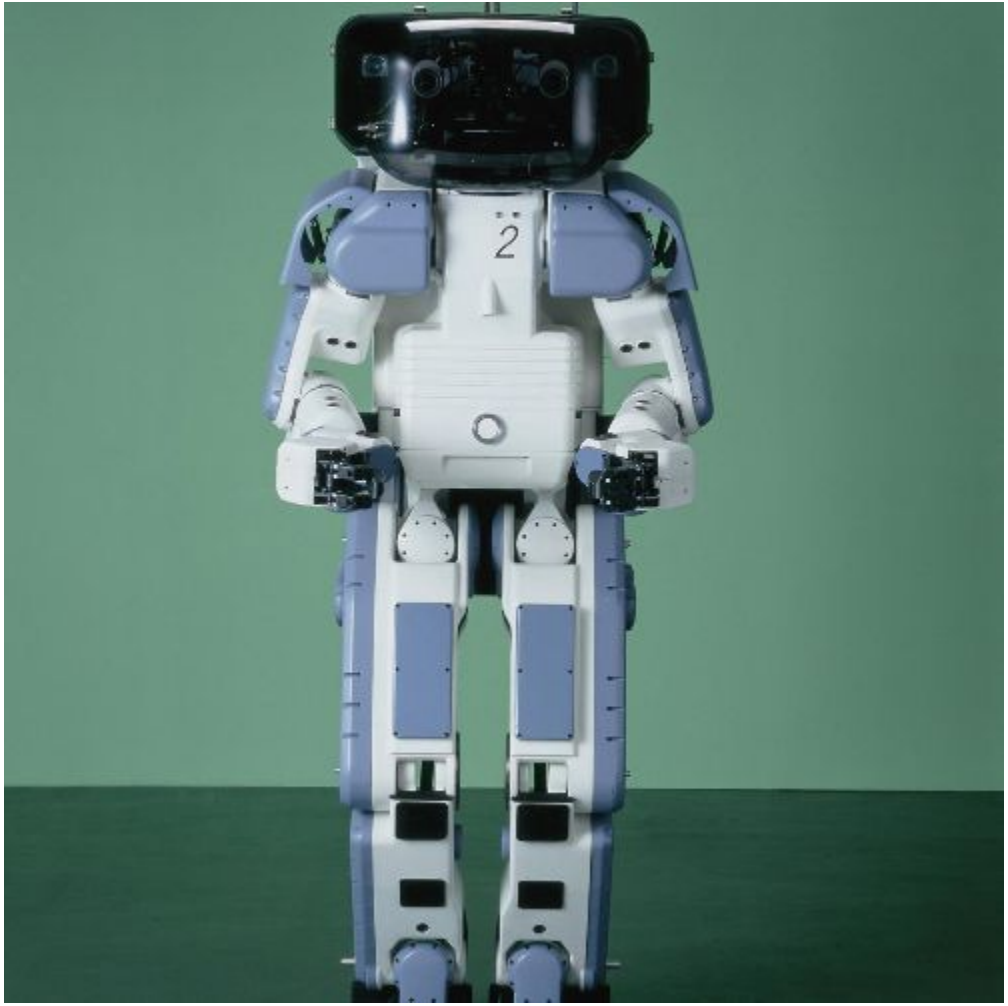


Perceptron ()

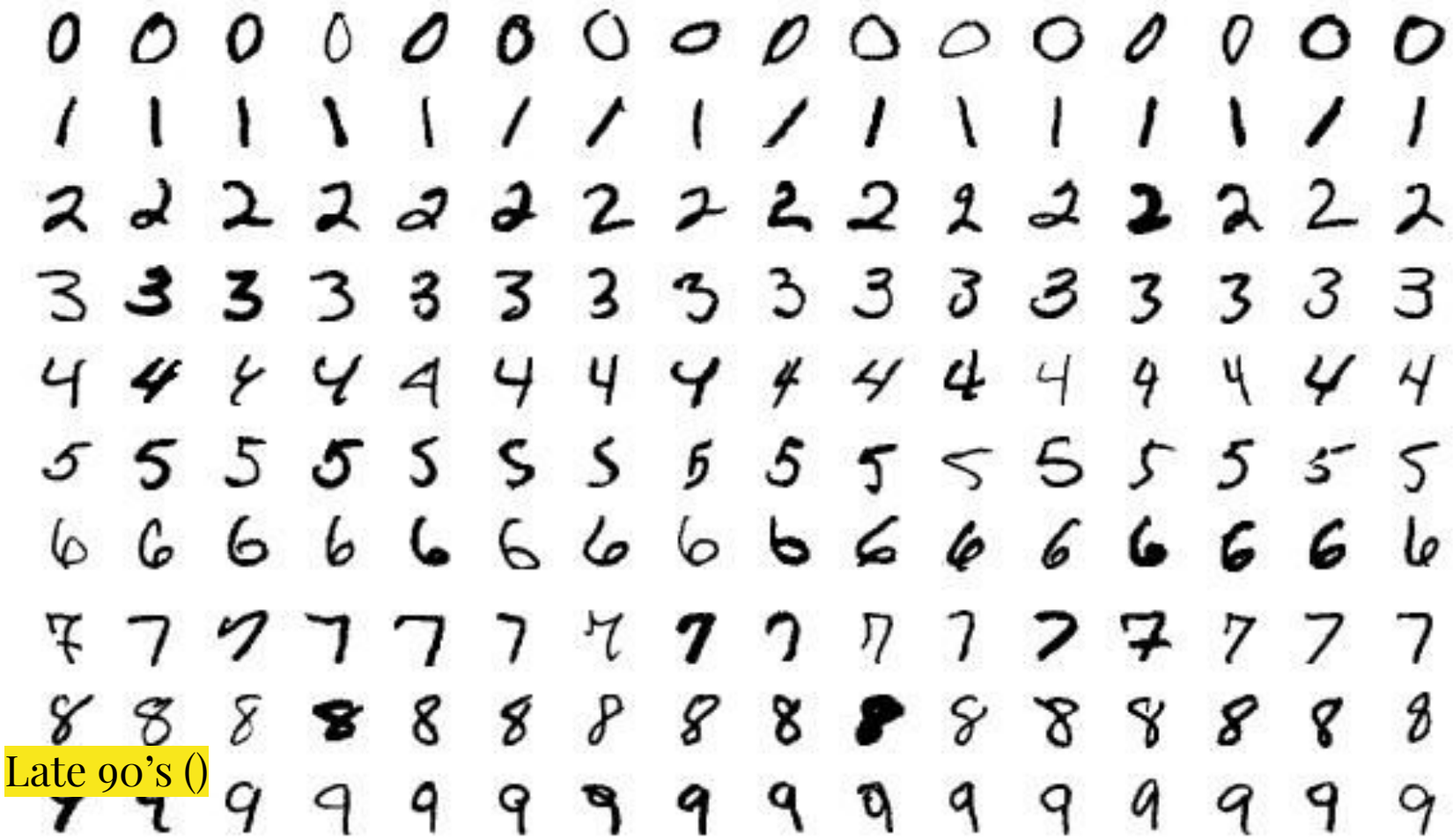
Knowledge Based System (1969 - 1979)


START
Do you have Fever?
NO
Contact a Doctor
YES
Do you have Headache?
NO
Do you have Nausea?
NO
Contact a Doctor
YES
Do you have Nausea?
NO
Contact a Doctor
YES
Lassa Fever
YES
Do you have Vomit?
NO
Typhoid Fever
YES
Do you have Nausea?
NO
Dengue Fever
YES
Do you have Stomach Pain?
NO
Malaria Fever
YES
Yellow Fever
Determine Level of Infection
Mild
Severe

First AI Robot (1960's)

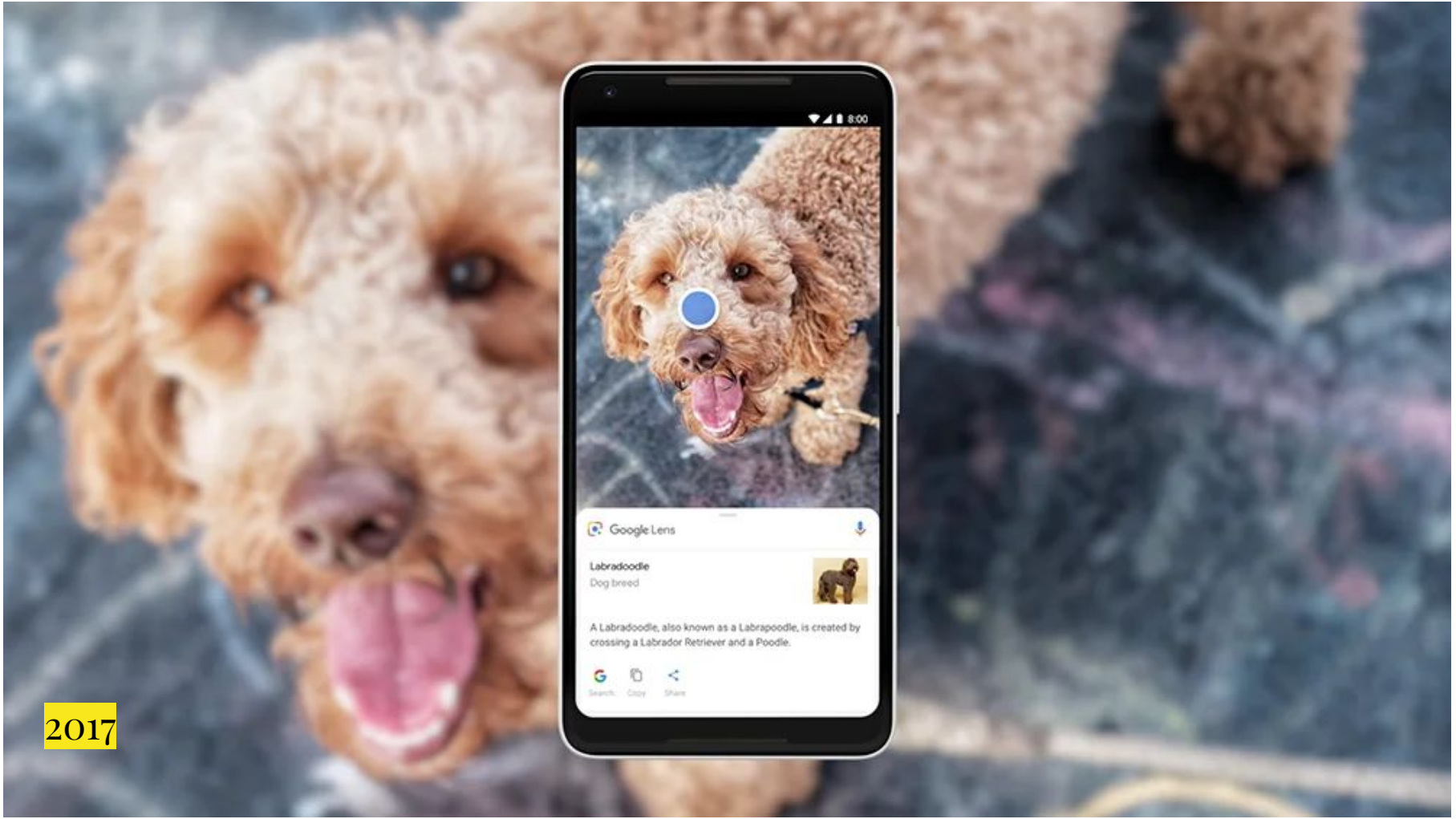

2

Deep Learning



Late 90's ()

2010 (pengenalan wajah, bentuk, melihat, ingatan)


8:00
Google Lens
Labradoodle
Dog breed
A Labradoodle, also known as a Labrapoodle, is created by crossing a Labrador Retriever and a Poodle.
Search
Copy
Share

2017

Man VS Machine

Deep Blue (1997)

03

NETFLIX
ALPHAGO
AlphaGo
Lee Sedol
2017

2017
DENDI
OPEN AI

2019

ChatBot AI

```
  Welcome to
                EEEEEE  LL      IIII   ZZZZZZ   AAAAA
                EE      LL       II       ZZ   AA   AA
                EEEEE   LL       II     ZZZ    AAAAAAA
                EE      LL       II    ZZ      AA   AA
                EEEEEE  LLLLLL  IIII ZZZZZZ    AA   AA

  Eliza is a mock Rogerian psychotherapist.
  The original program was described by Joseph Weizenbaum in 1966.
  This implementation by Norbert Landsteiner 2005.


ELIZA: Is something troubling you ?
YOU:   Men are all alike.
ELIZA: What is the connection, do you suppose ?
YOU:   They're always bugging us about something or other.
ELIZA: Can you think of a specific example ?
YOU:   Well, my boyfriend made me come here.
ELIZA: Is it important to you that your boyfriend made you come here ?
YOU:   He says I'm depressed much of the time.
ELIZA: I am sorry to hear that you are depressed.
YOU:   It's true. I am unhappy.
ELIZA: Can you explain what made you unhappy ?
YOU:
```

1966

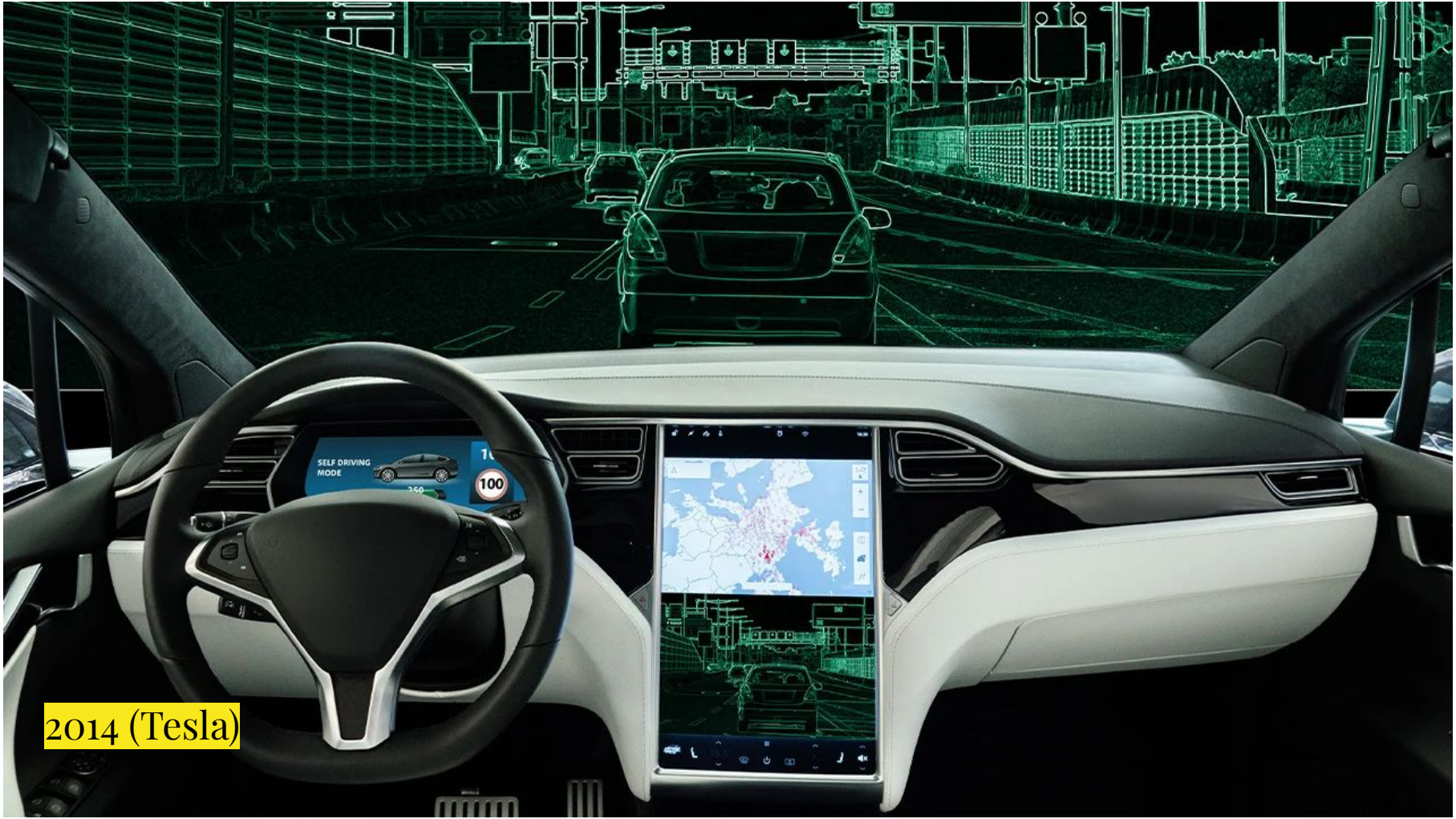
2018 (chat GBT 1)

Search Engine (1997)

Google Search I'm Feeling Lucky

Autonomous Vehicle (Car)

1920



2014 (Tesla)