

# Interface Between Law & Technology



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Latin-English Dictionary

**Ignorantia juris neminem  
excusat**

Ignorance of the law excuses no one

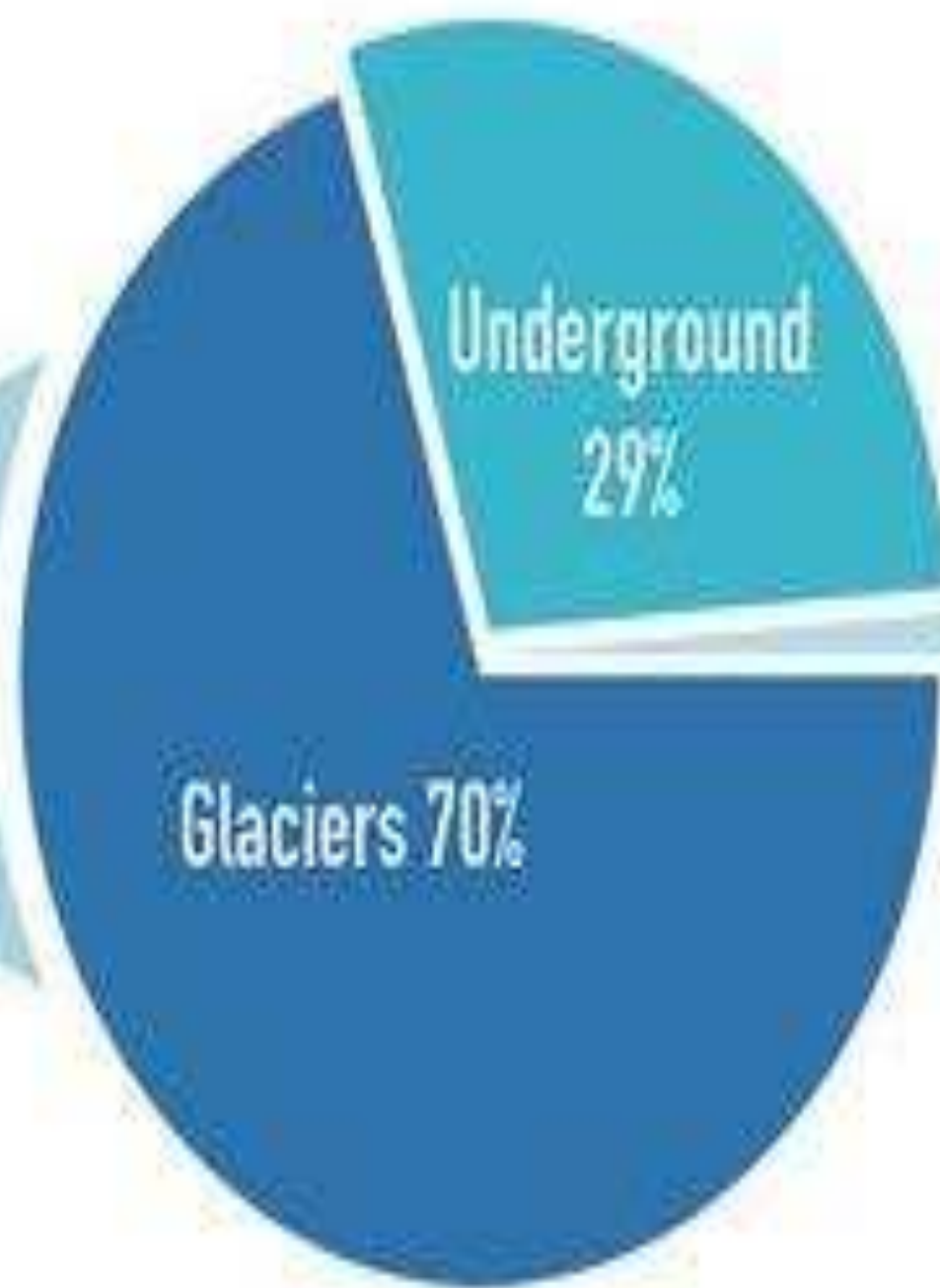


**Ultimately Balance Prevails....**

Ocean Water 97%



Fresh  
Water 3%



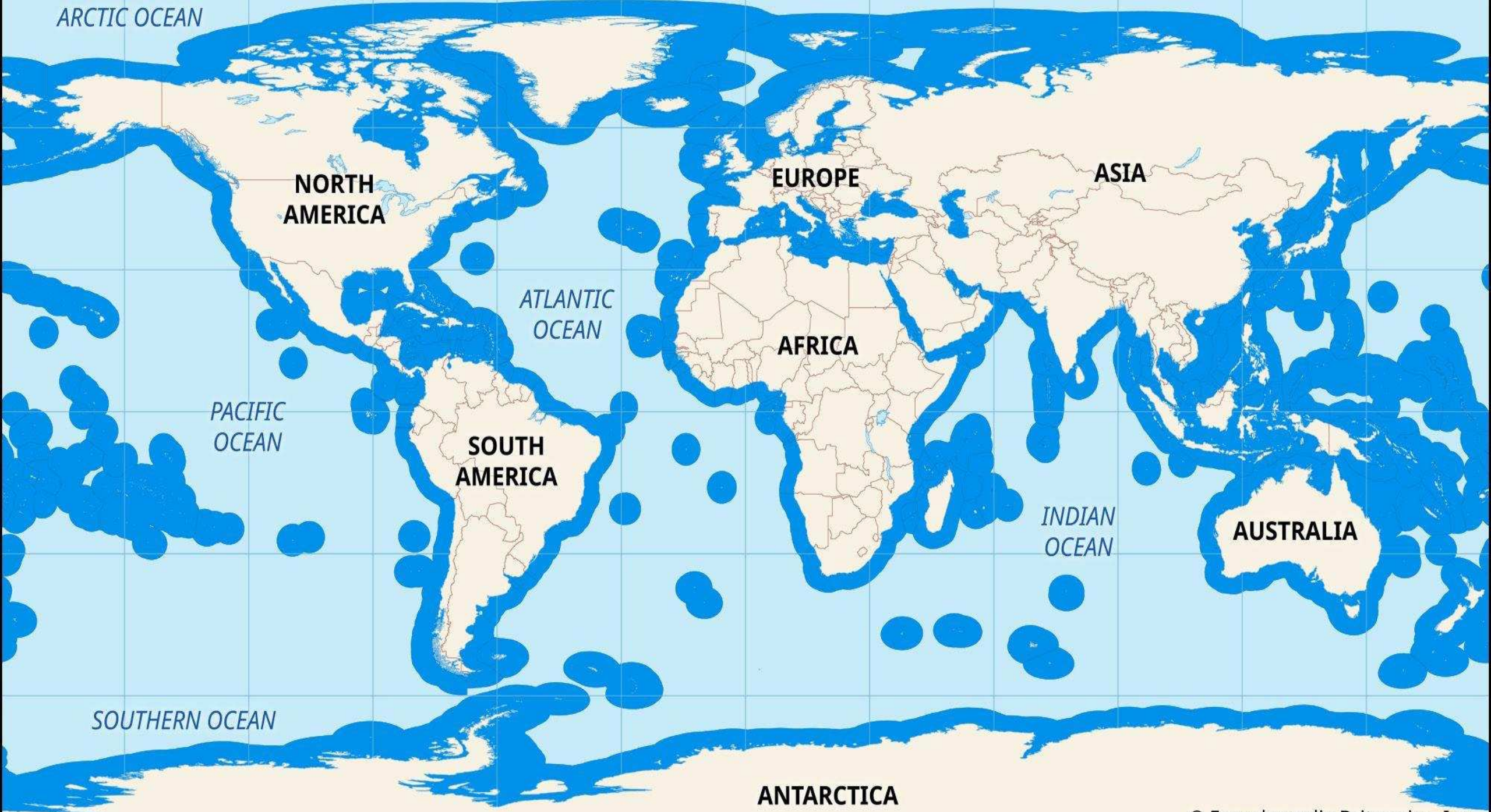
Underground  
29%

Rivers & Lakes  
<1%

Glaciers 70%



***Law of the Land is Supreme***





NO GAMBLING!

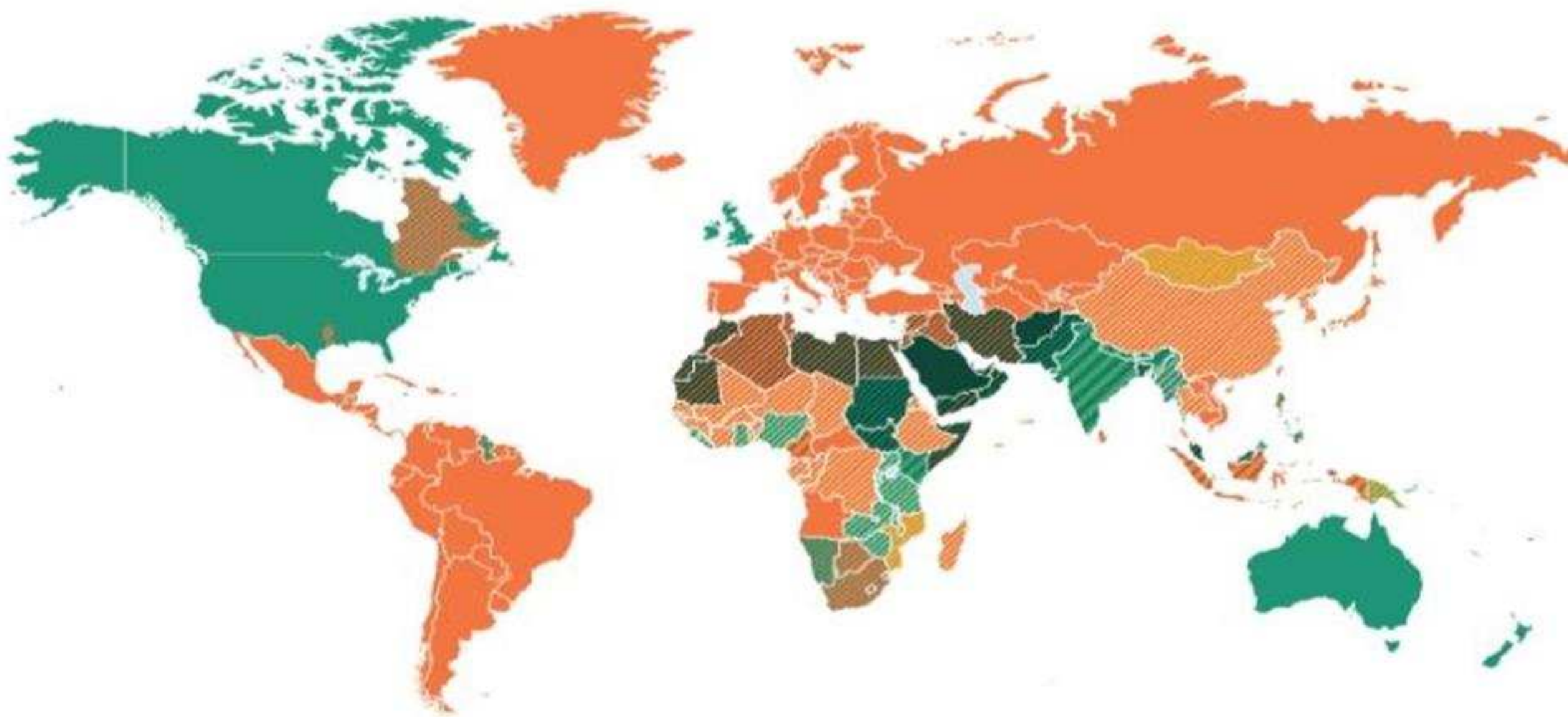








SUB >



■ Civil Law    ■ Common Law    ■ Islamic Law    ■ Customary Law    ▨ Mixed System

# ***Law of Sea    vs    Law of Maritime***

***Defines and Governs the Rights &  
Liabilities of Nations with respect to  
ocean resources  
(Public International Law)***

***Admiralty Law, A body of Law that  
governs Nautical Issues and Private  
Maritime Dispute  
(Private International Law)***

***United Nation Conventions on Law of Sea  
(UNCLOS) 1982***

***320 Articles, 17 Parts & 9 Annexures***

A satellite image of Earth showing a large body of water, likely the Indian Ocean, with surrounding landmasses. The water is a deep blue, and the land is a mix of brown, tan, and green, indicating different terrain types. The image is used as a background for the text.

**Delimitation**

**Environmental control**

**Marine Scientific Research**

**Economic and Commercial Activities**

**Transfer of Technology**

**Settlement of Disputes**

Marine Law

Maritime Law (aka Admiralty)

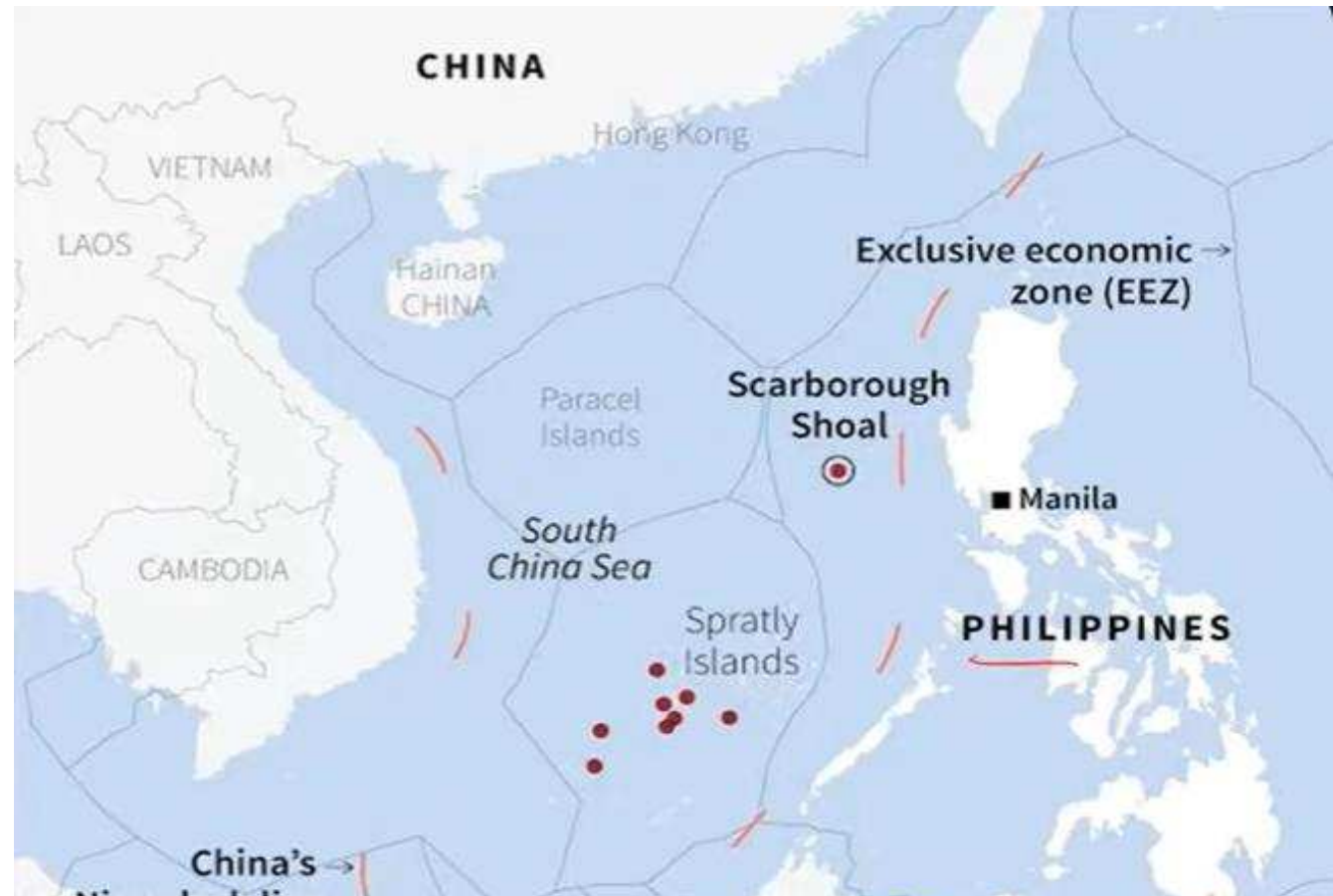
Law of the Sea

Shipping Law

'Wet'  
Shipping  
Law

'Dry'  
Shipping  
Law

Transport  
/ Carriage  
of Goods  
Law etc.



# WATER WAR

Sir Creek may be a small strip of water but it holds immense economic significance for both India and Pakistan





## EARLY HISTORY

### "Freedom of the Seas"

set forth by Hugo Grotius in 1618 proposed that the seas should be open and accessible to all nations, thereby allowing international trade.

**1648** The Treaty of Westphalia confirmed this idea that complete authority and sovereignty over land by rulers would be recognized, but no nation could exercise sovereignty over the oceans.

The doctrine of Freedom of the Seas has enabled  
**WORLD MARITIME TRADE** to prosper



# 1982

The United Nations Convention on the Law of the Sea (UNCLOS) was passed in 1982.

It now has

## 166

STATES  
parties

**FIRST** successful international collaborative approach to maritime security and building a framework on ocean law.

Addresses conduct on, over, and under **70%** of the world's surface.



The doctrine of Freedom of the Seas persists during the twentieth century; however, naval arms control also contributed to **maritime governance**.



Maritime law evolves from a focus on the regulation or prevention of naval warfare to a structure for **secure, safe and environmentally sustainable uses of the oceans**.



## The International Maritime Organization (IMO)

is the key institution of the United Nations created in 1948 for the development of international maritime law.

It now has

## 170

STATES  
parties

## 3

associate  
members



## CONSENSUS

oriented

ADOPTS REGIMES AND TREATIES  
regarding international shipping

**50** treaties + **100s** of codes & guidelines

applied to almost  
**100% OF GLOBAL TONNAGE**

### 3 INTERNATIONAL TREATIES

to counter drug activities that are widely accepted and complementary:

1961

Single Convention  
on Narcotic Drugs  
180 STATE PARTIES

1971

Convention on  
Psychotropic Substances  
175 STATE PARTIES

1988

UN Convention on Illicit Traffic  
of Narcotics and Psychotropic Drugs  
170 STATE PARTIES

These treaties outline control measures for allowing  
**“lawful narcotic drugs and psychotropic substances**  
for medical and scientific purposes  
while preventing their diversion into the black market.”

This treaty regulates chemicals used in manufacturing  
drugs and provides additional provisions for other  
drug-related crimes such as money laundering,

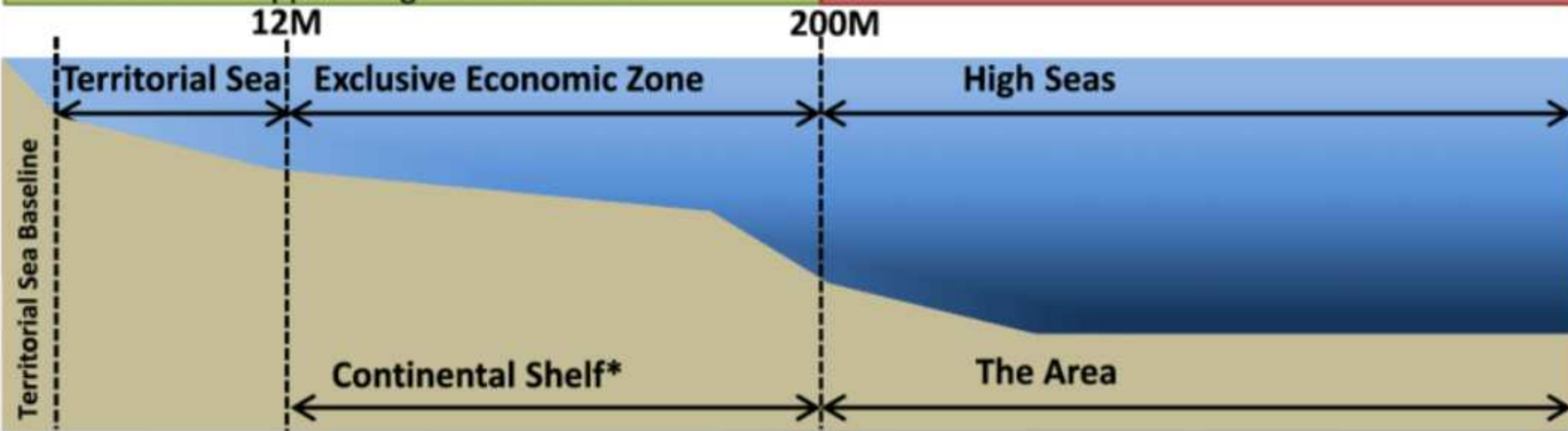
There are additional regional counter-drug agreements that allow “other nations to operate in waters under their jurisdictions” and determine the counter-narcotics procedures and guidelines related to boarding and seizure.

**Areas within national jurisdiction:**

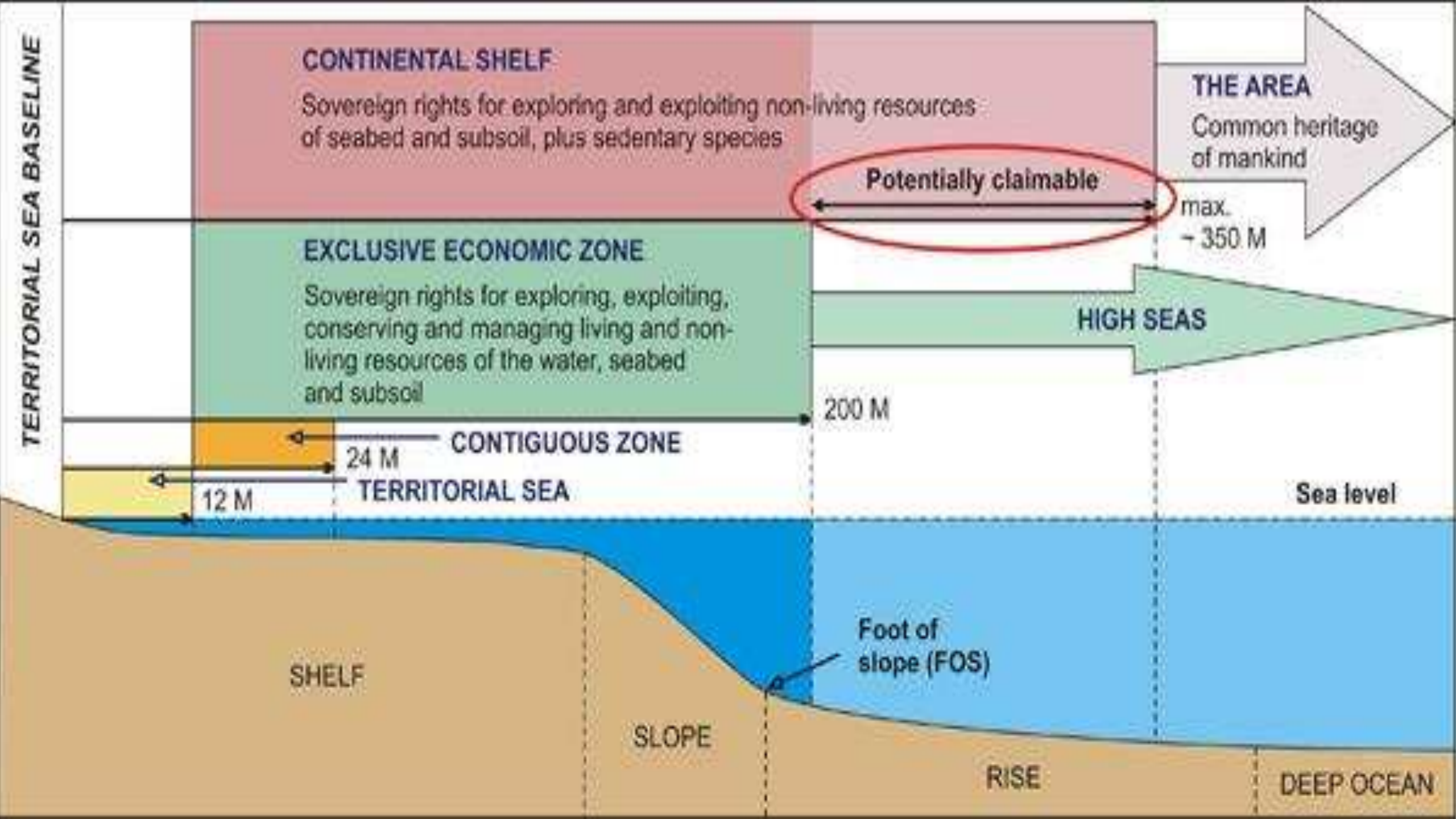
*Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation* applies to genetic resources.

**Areas beyond national jurisdiction:**

No applicable mechanism for access and benefit sharing of marine genetic resources

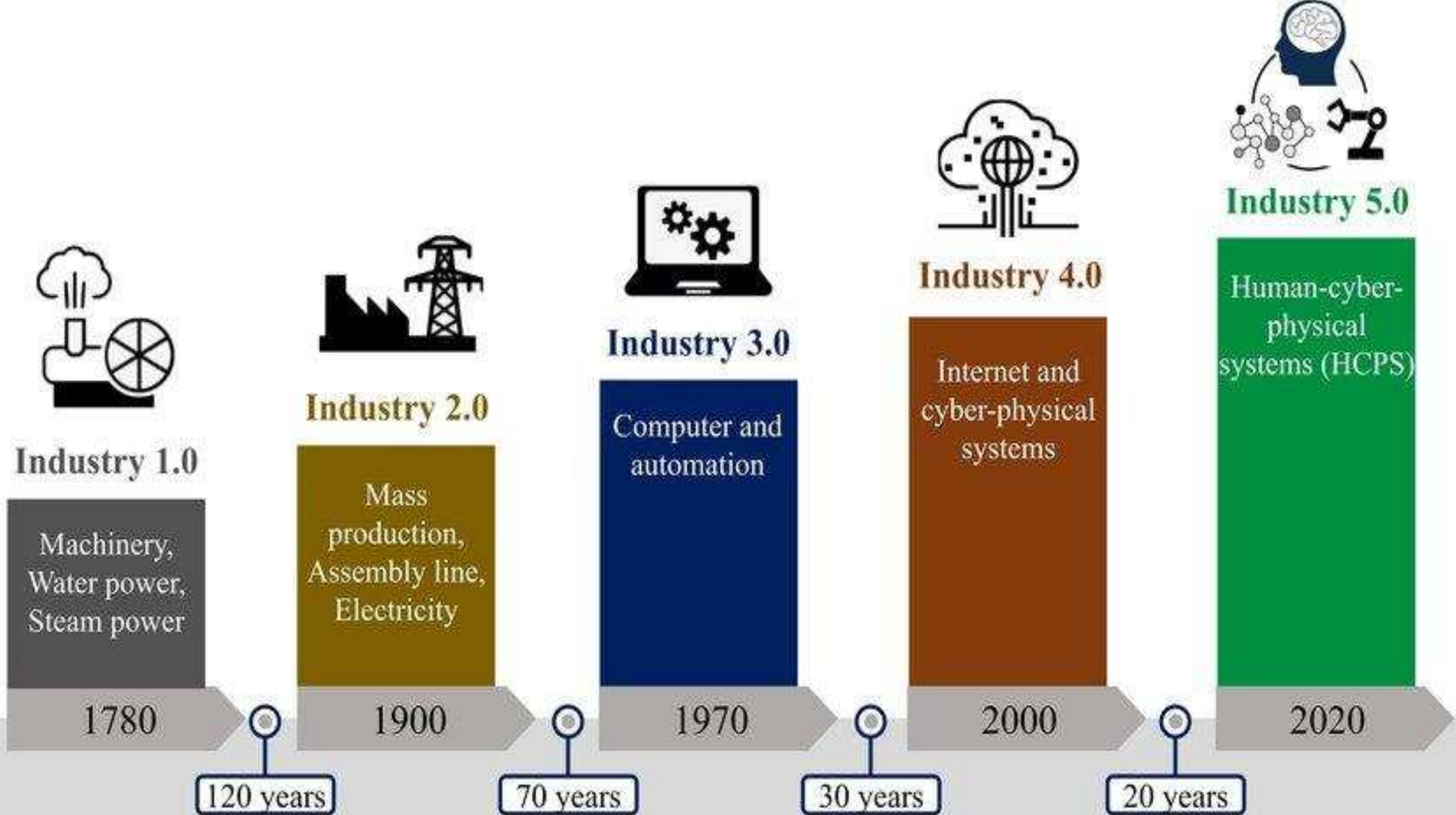


Under the United Nations Convention on the Law of the Sea (UNCLOS) the ocean is divided into areas within and outside of national jurisdiction. While the Nagoya Protocol applies in areas within national jurisdiction, there is no applicable mechanism for access and benefit-sharing of marine genetic resources in areas beyond national jurisdiction. (Notes: " M " = nautical mile; \* The outer limit of the continental shelf could extend beyond 200M, as provided for by UNCLOS article 76. Some maritime zones included in areas within national jurisdiction are not indicated in this diagram (i.e.: Internal Waters; Archipelagic Waters; Contiguous Zone).









*We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before.*

***Klaus Schwab,  
President of the World Economic Forum,  
The Fourth Industrial Revolution***

Productivity growth from the **steam engine**

**0.3%**

**1850–1910**



Source: McKinsey Global Institute analysis

McKinsey&Company

#Automation

# Evolution of Communication Technology



DOMO

# DATA NEVER SLEEPS 10.0

## DATA NEVER SLEEPS 1.0 VS. 10.0



GOOGLE  
USER QUERIES



YOUTUBE  
HOURS UPLOADED



INSTAGRAM  
PHOTOS SHARED



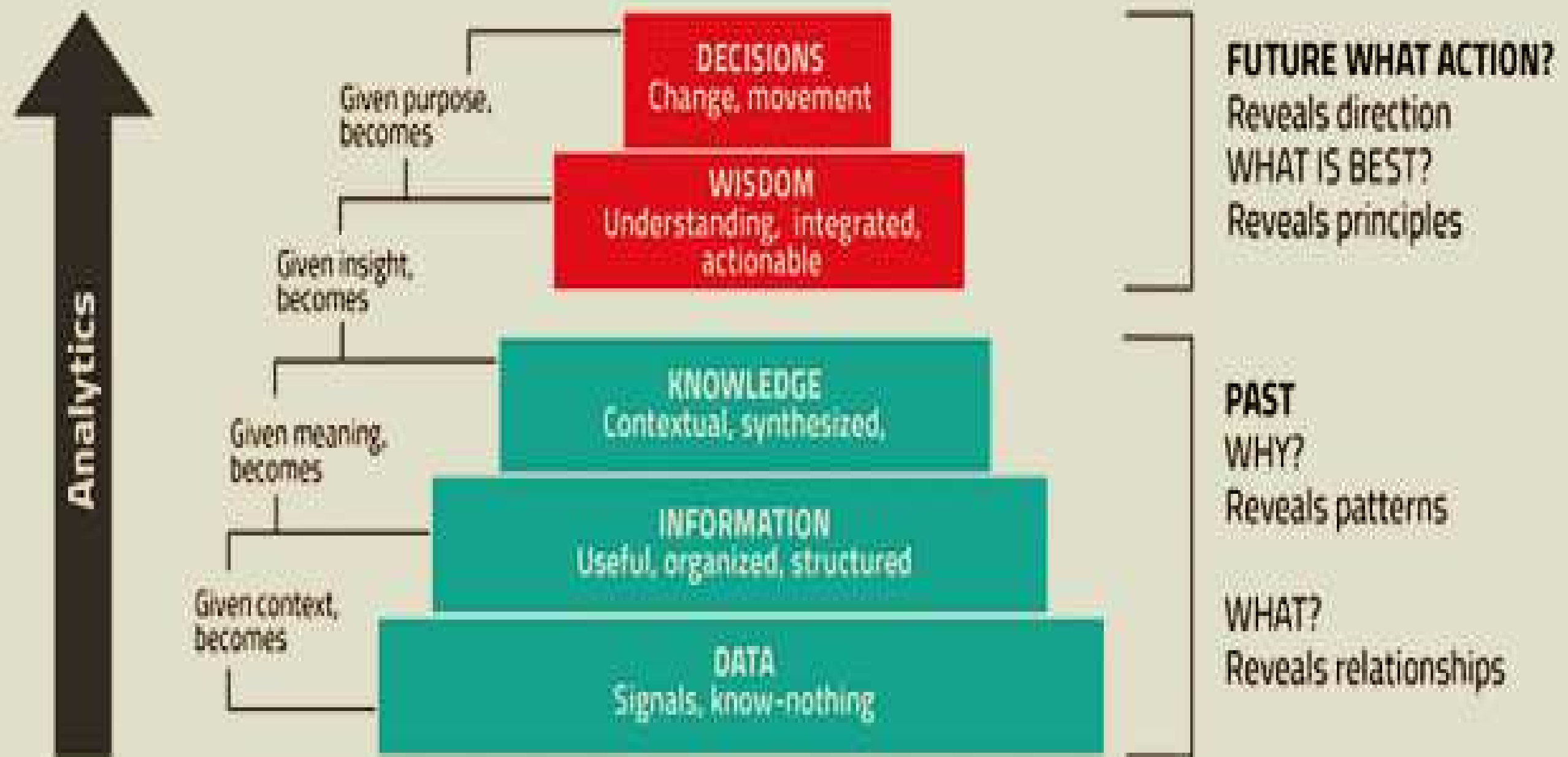
TWITTER  
TWEETS SHARED

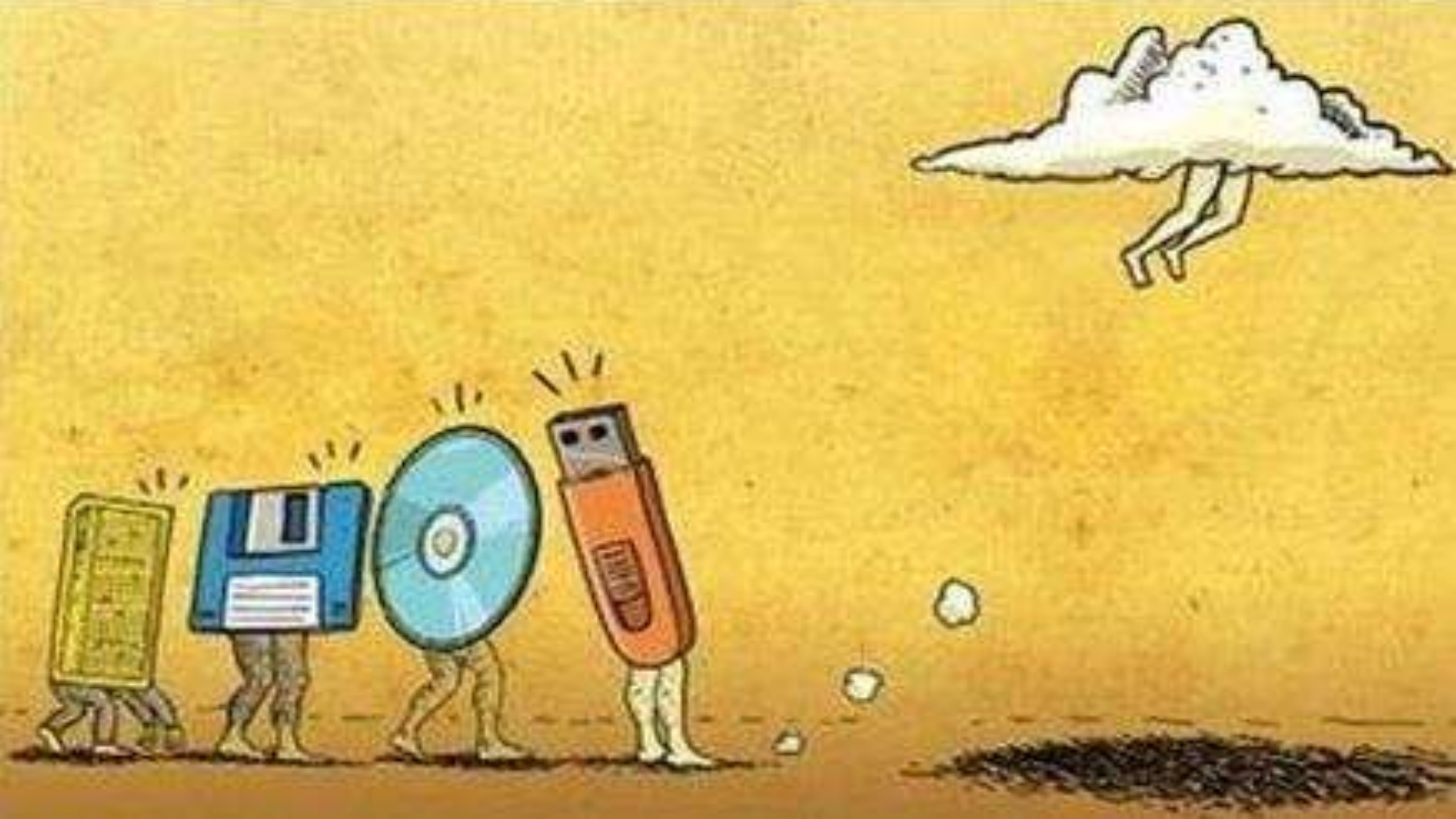


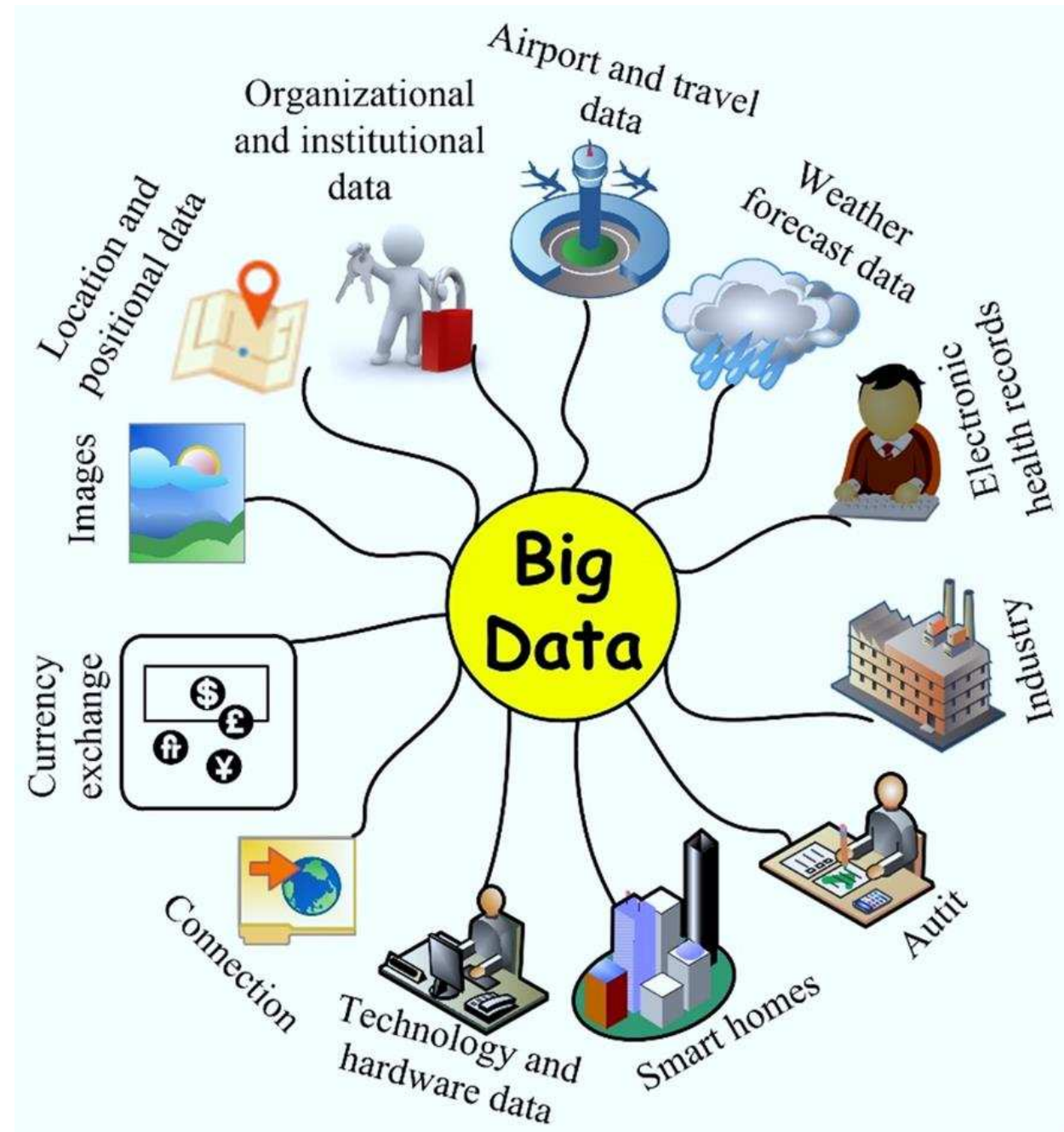
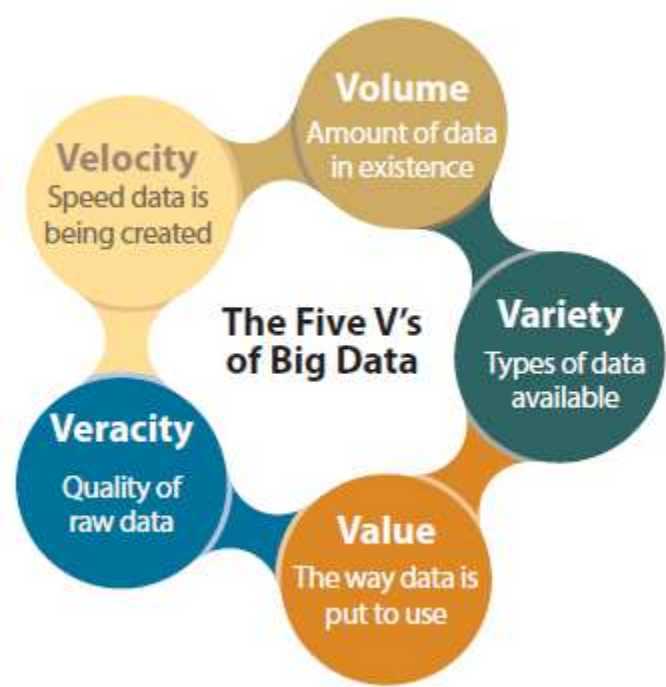
FACEBOOK  
CONTENT SHARED



EMAILS  
EMAILS SENT







Bit

Nibble

Byte

Kilobyte

Megabyte

Gigabyte

Terabyte

Petabyte

Exabyte

Zettabyte

Yottabyte

Brontobyte

= 4 Bit

= 8 Bit

=  $8 \times 10^3$  Bit

=  $8 \times 10^6$  Bit

=  $8 \times 10^9$  Bit

=  $8 \times 10^{12}$  Bit

=  $8 \times 10^{15}$  Bit

=  $8 \times 10^{18}$  Bit

=  $8 \times 10^{21}$  Bit

=  $8 \times 10^{24}$  Bit

=  $8 \times 10^{27}$  Bit

= 4 Bit

= 8 Bit

=  $8 \times 2^{10}$  Bit

=  $8 \times 2^{20}$  Bit

=  $8 \times 2^{30}$  Bit

=  $8 \times 2^{40}$  Bit

=  $8 \times 2^{50}$  Bit

=  $8 \times 2^{60}$  Bit

=  $8 \times 2^{70}$  Bit

=  $8 \times 2^{80}$  Bit

=  $8 \times 2^{90}$  Bit

Decimal

Binary

# *Artificial*

Something,  
which is...?  
**NOT Natural**

*Intelligence*  $\neq$  *Intellect*

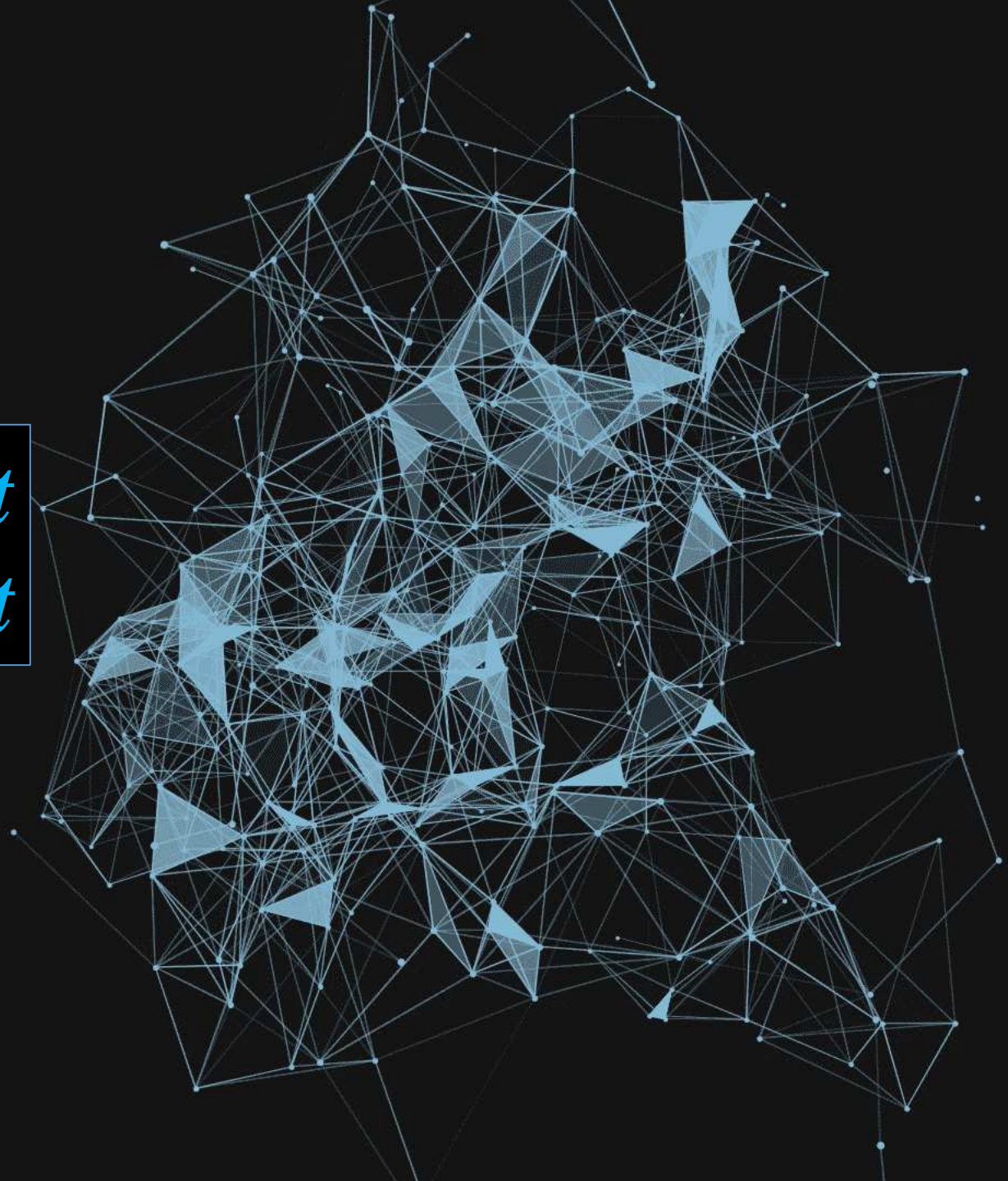
*Intelligence*  $\supset$  *Intellect*

*Intelligence*

The Capacity:

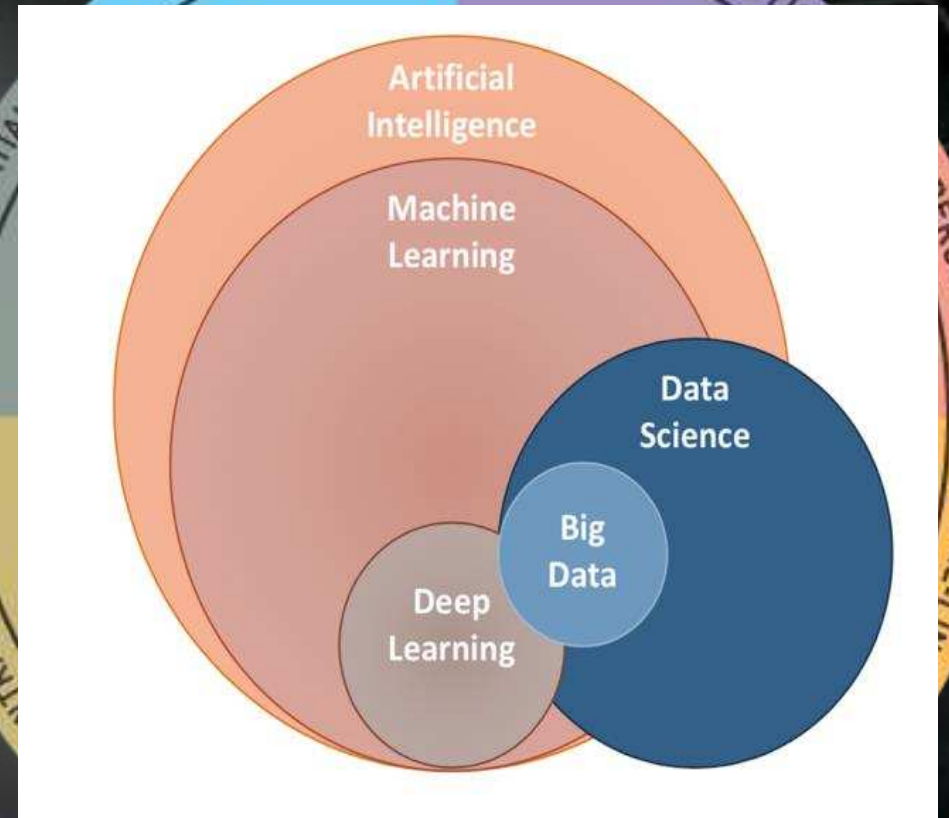
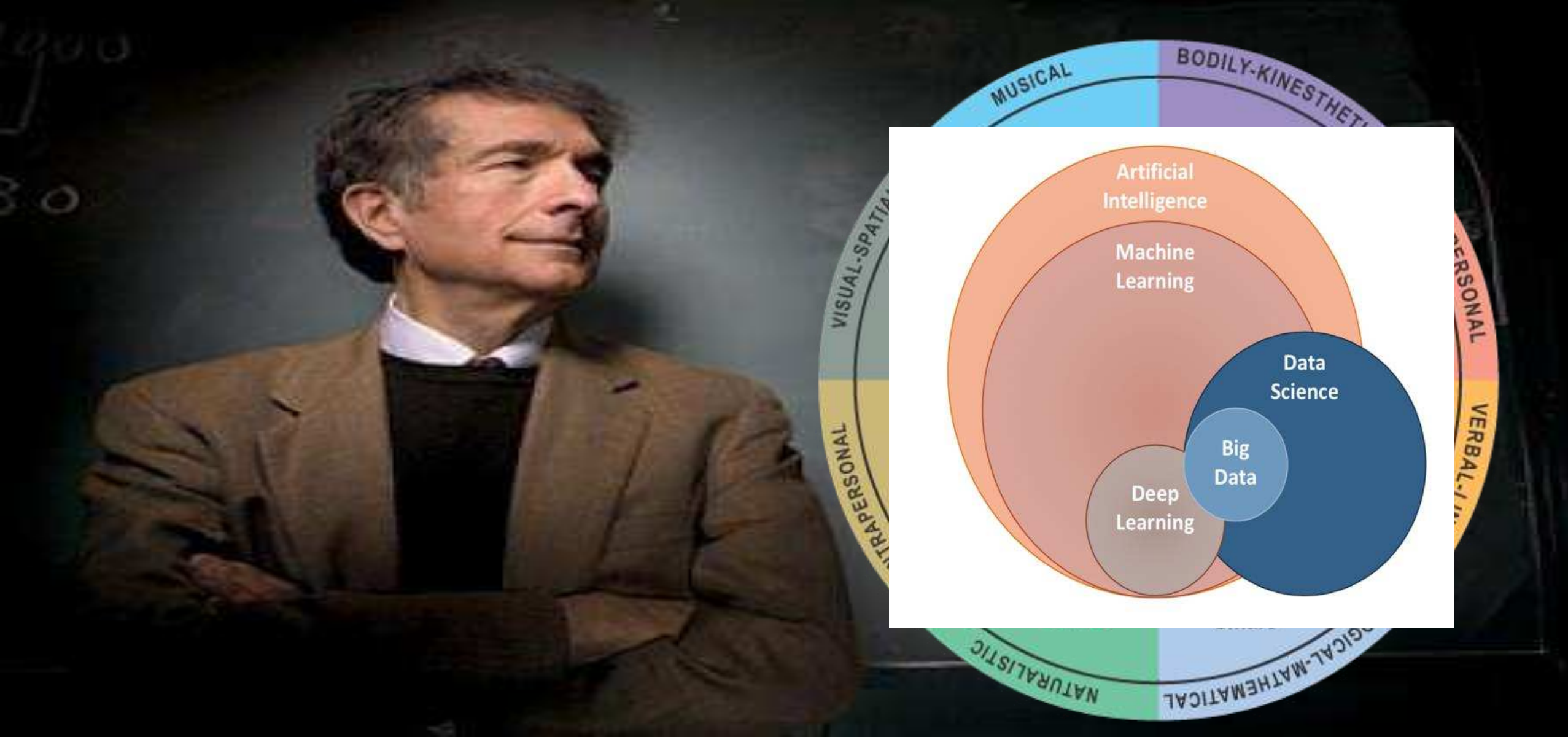
- ✓ To Learn
- ✓ To Reason
- ✓ To Understand
- ✓ To Judge
- ✓ To Decide

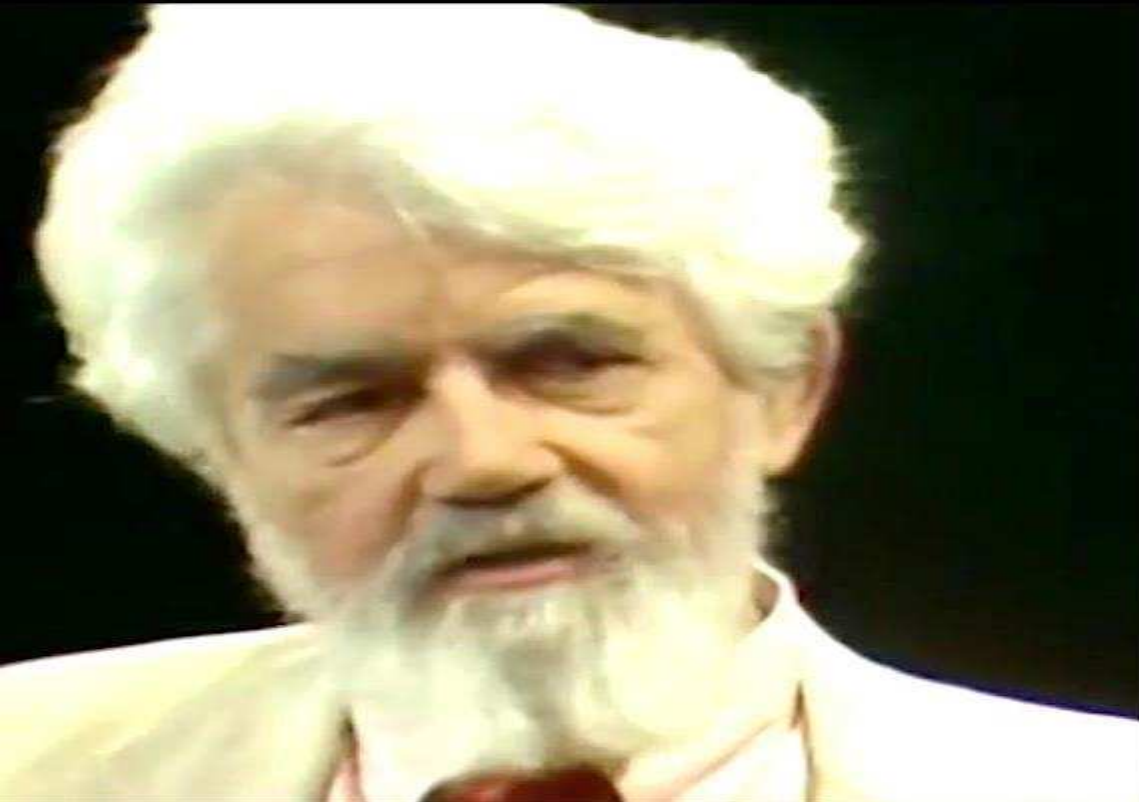
*I  
N  
T  
E  
L  
L  
E  
C  
T*



# *Multiple Intelligence Theory*

Howard Gardner (Frames of Mind) 1983

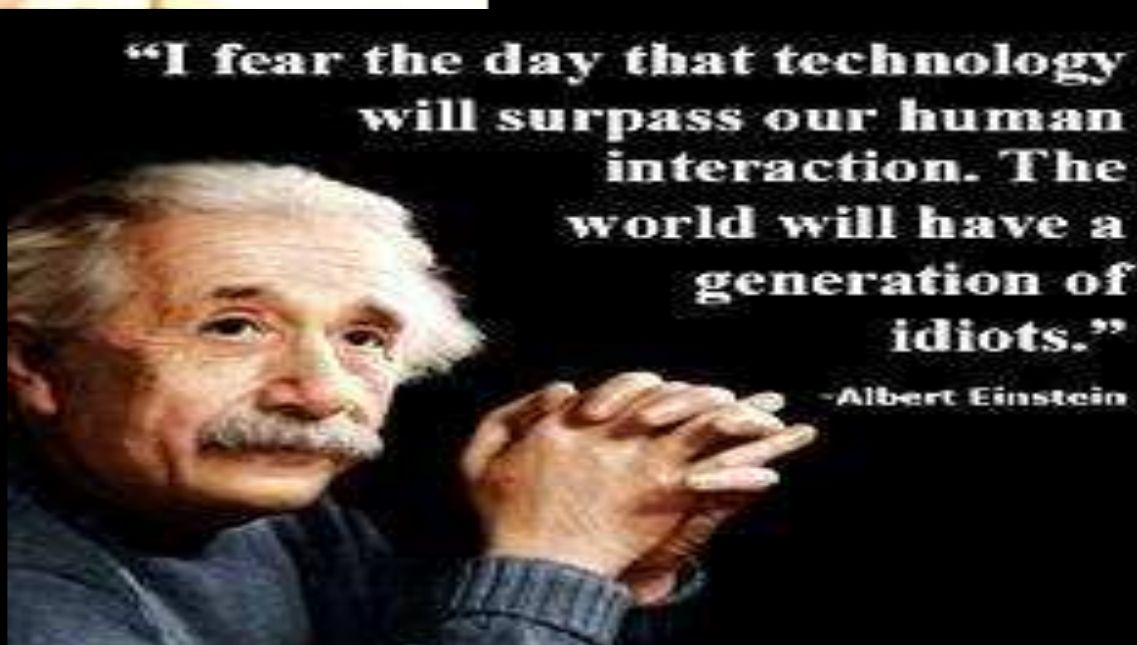




**"If it takes 200 years to achieve artificial intelligence and then finally there's a textbook that explains how it's done, the hardest part of that textbook to write will be the part that explains why people didn't think of it 200 years ago."**

**- John McCarthy**

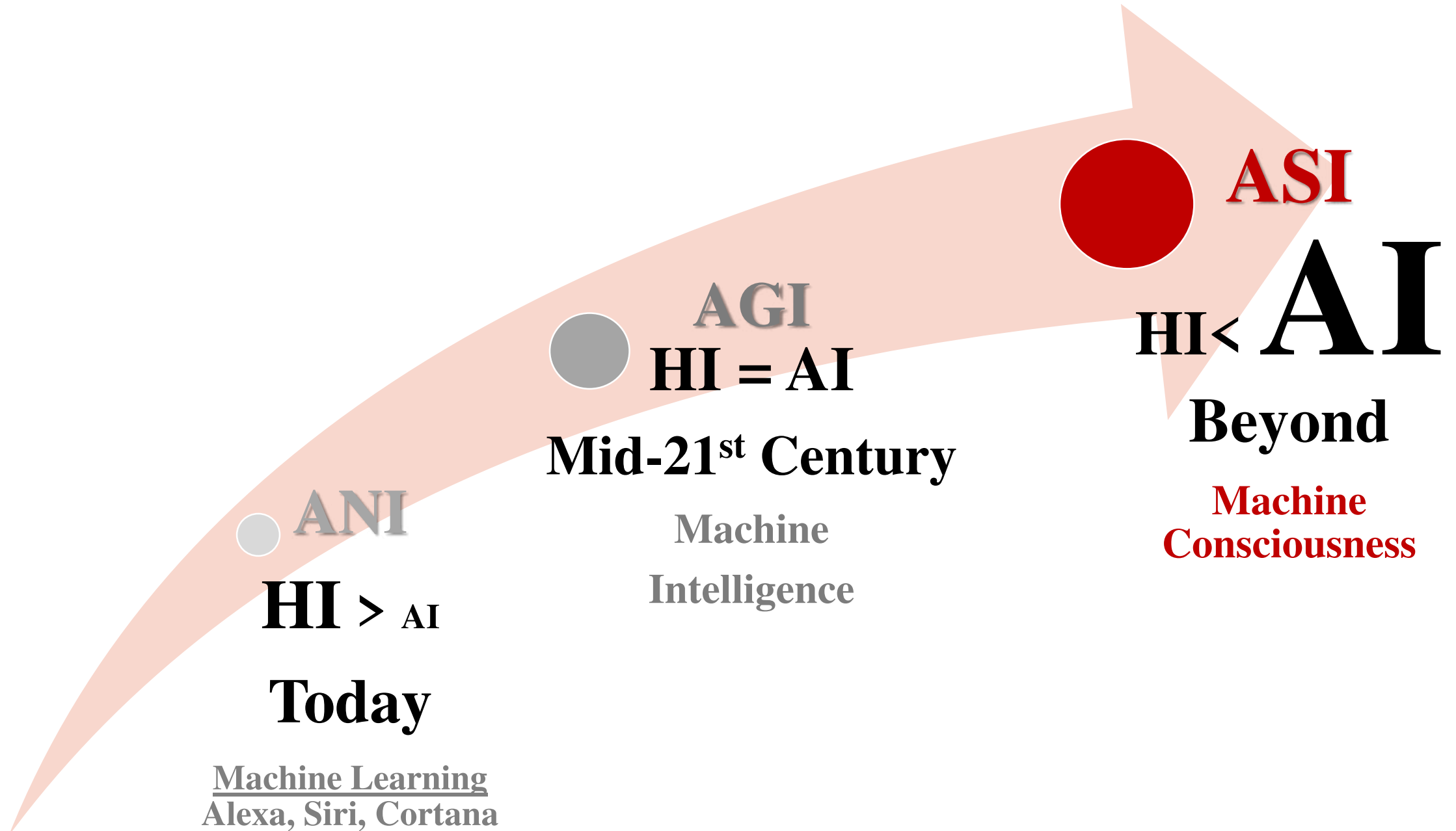
(Coined the term "Artificial Intelligence")



**"I fear the day that technology will surpass our human interaction. The world will have a generation of idiots."**

**- Albert Einstein**

# Evolution of AI

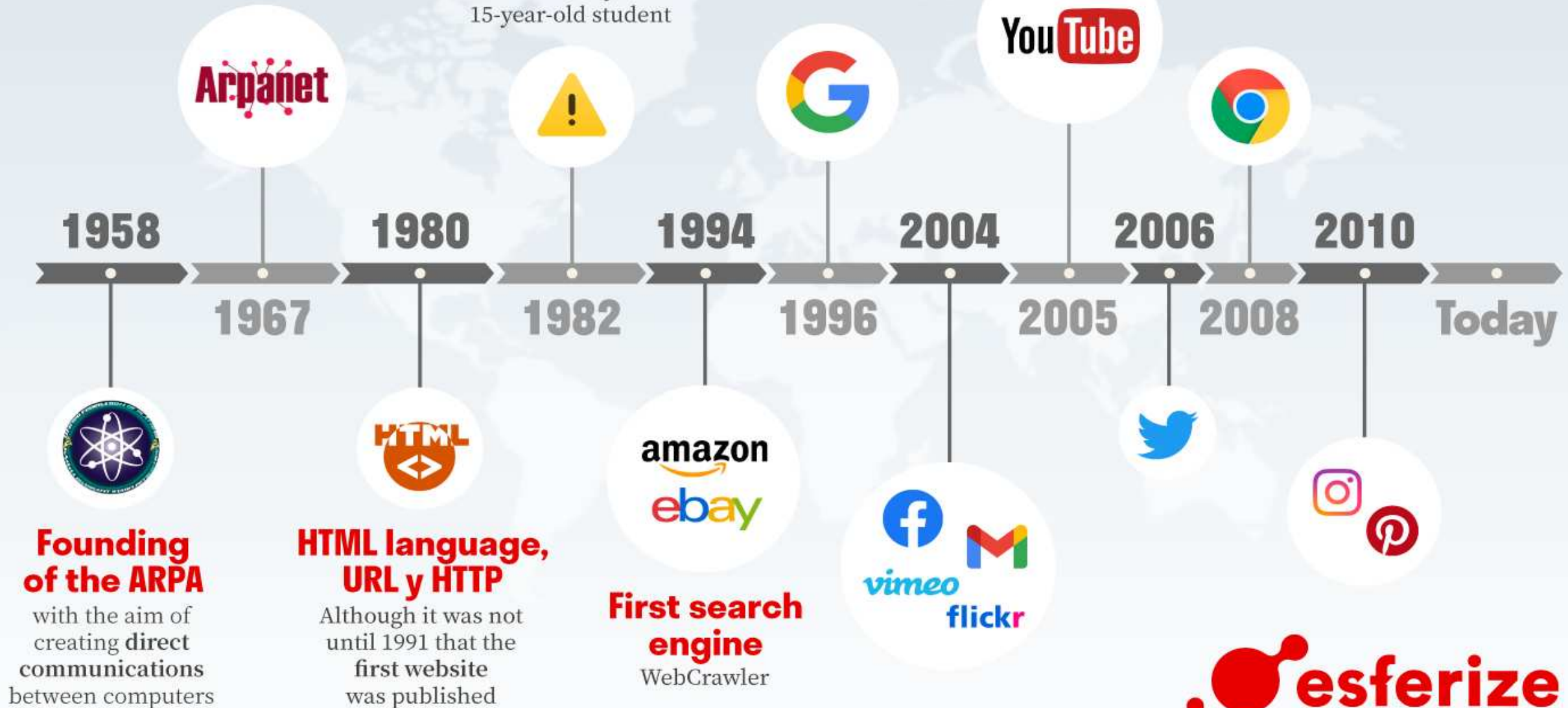


## ARPANET is born

a computer network that brought together the best ideas from MIT, NPL and RC

## First virus

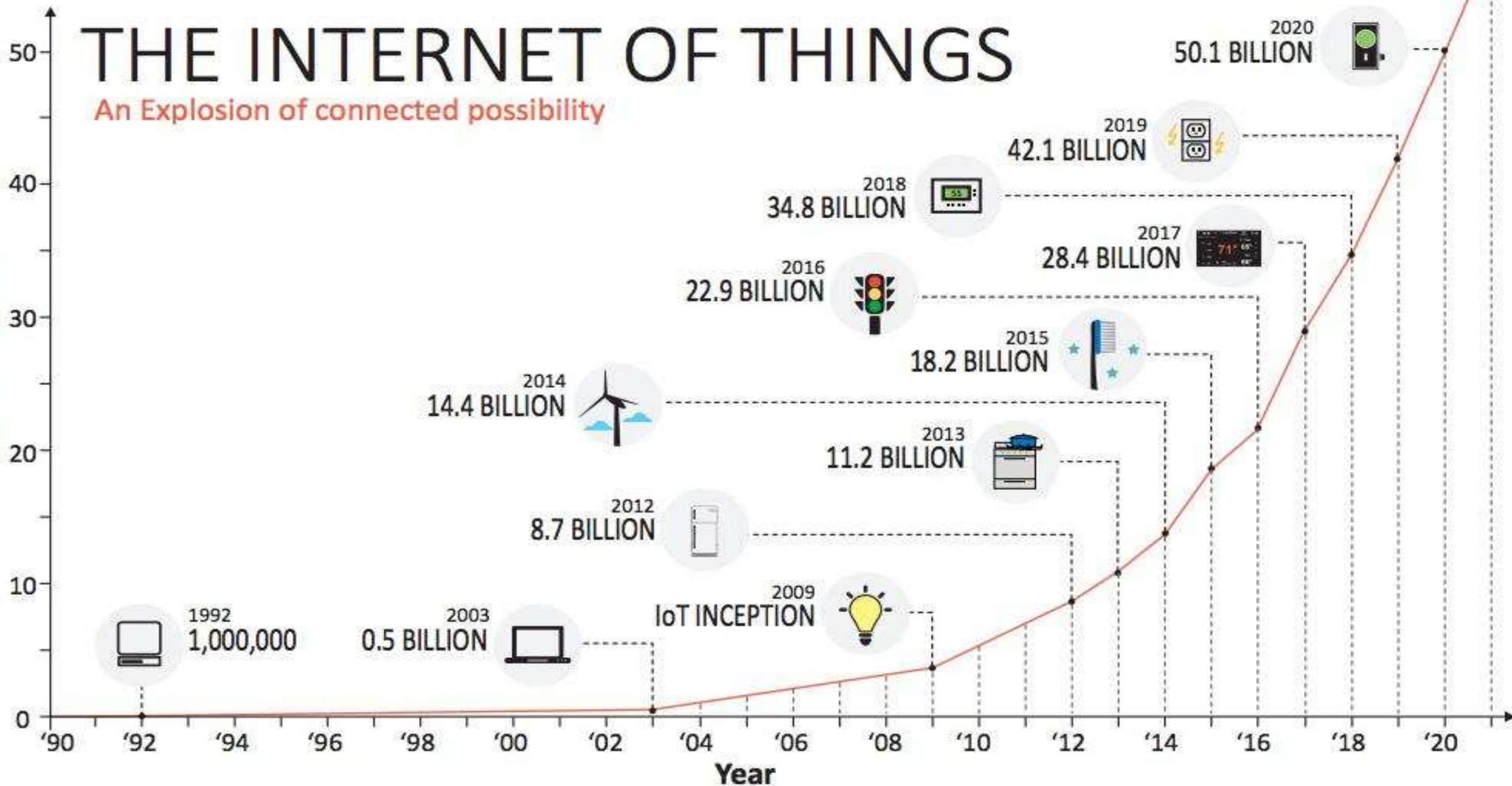
in history created by a 15-year-old student



# THE INTERNET OF THINGS

An Explosion of connected possibility

Billions of devices



## Machine-to-Machine



A device that captures an event and transmit the event over the network to an application. The application translates event to meaningful information.

## Internet of Things

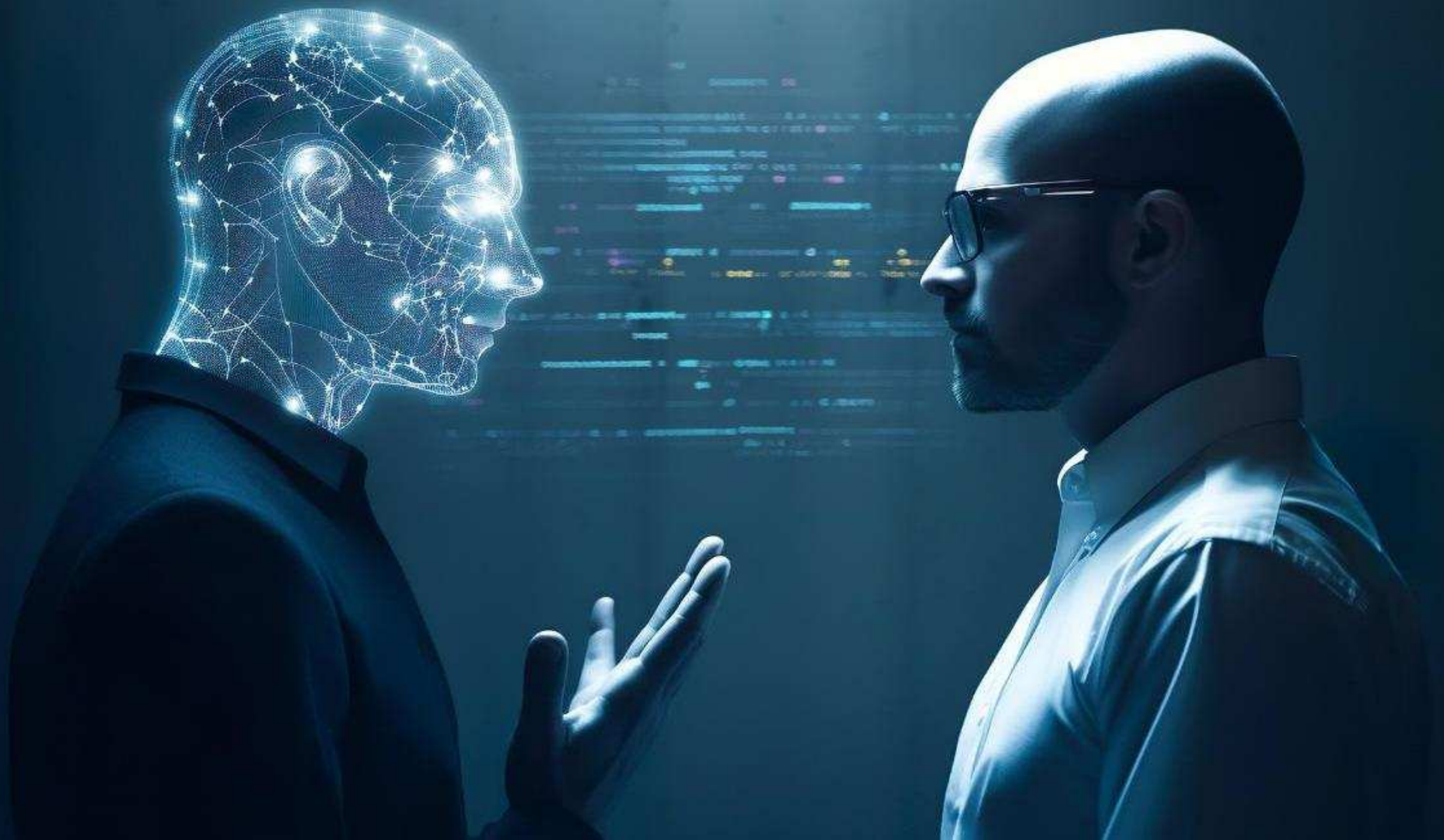


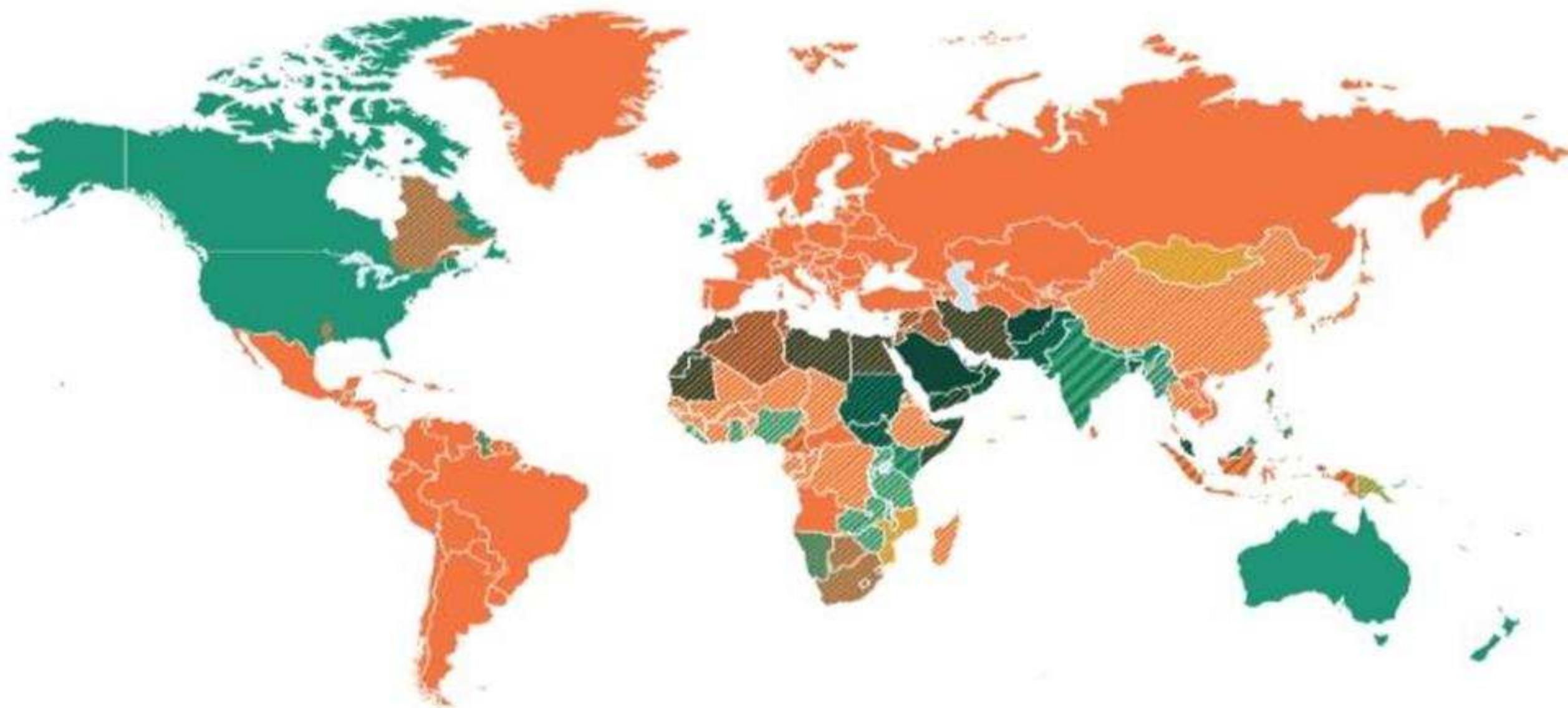
A network of uniquely identifiable things that communicate without human interaction using IP connectivity.

## Internet of Everything



Bringing together the people, process, data, and things to make networked connections more meaningful by turning information into actions.





■ Civil Law    ■ Common Law    ■ Islamic Law    ■ Customary Law    ■ Mixed System

# THE RULE OF LAW



Equality  
under the law



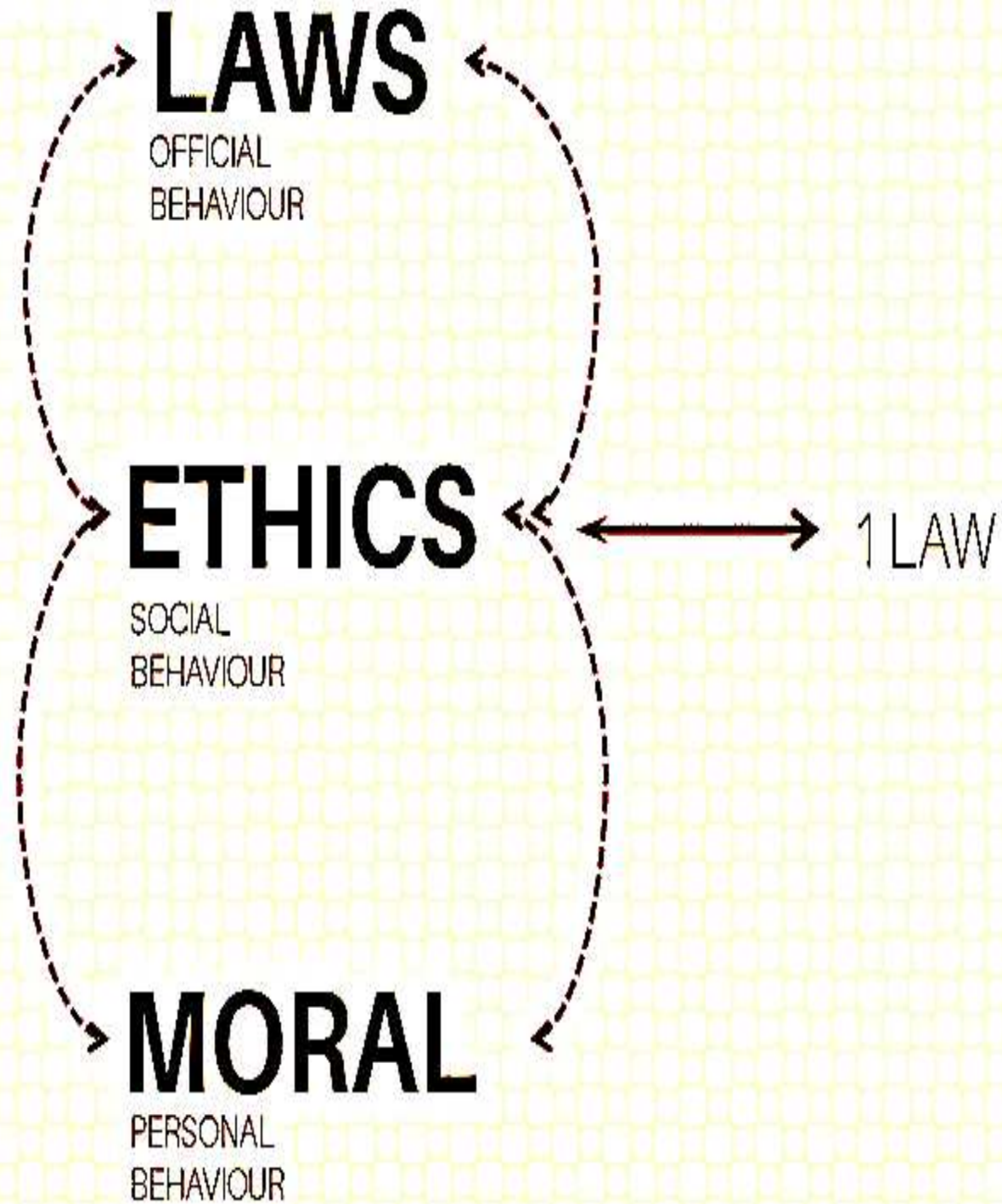
Transparency  
of law



Independent  
judiciary



Accessible  
legal remedy



## RULES



Made by groups  
and their leaders



Group leaders make  
sure members of the  
group follow the rules



There are consequences  
for people in the group  
for not following  
group rules

## LAWS



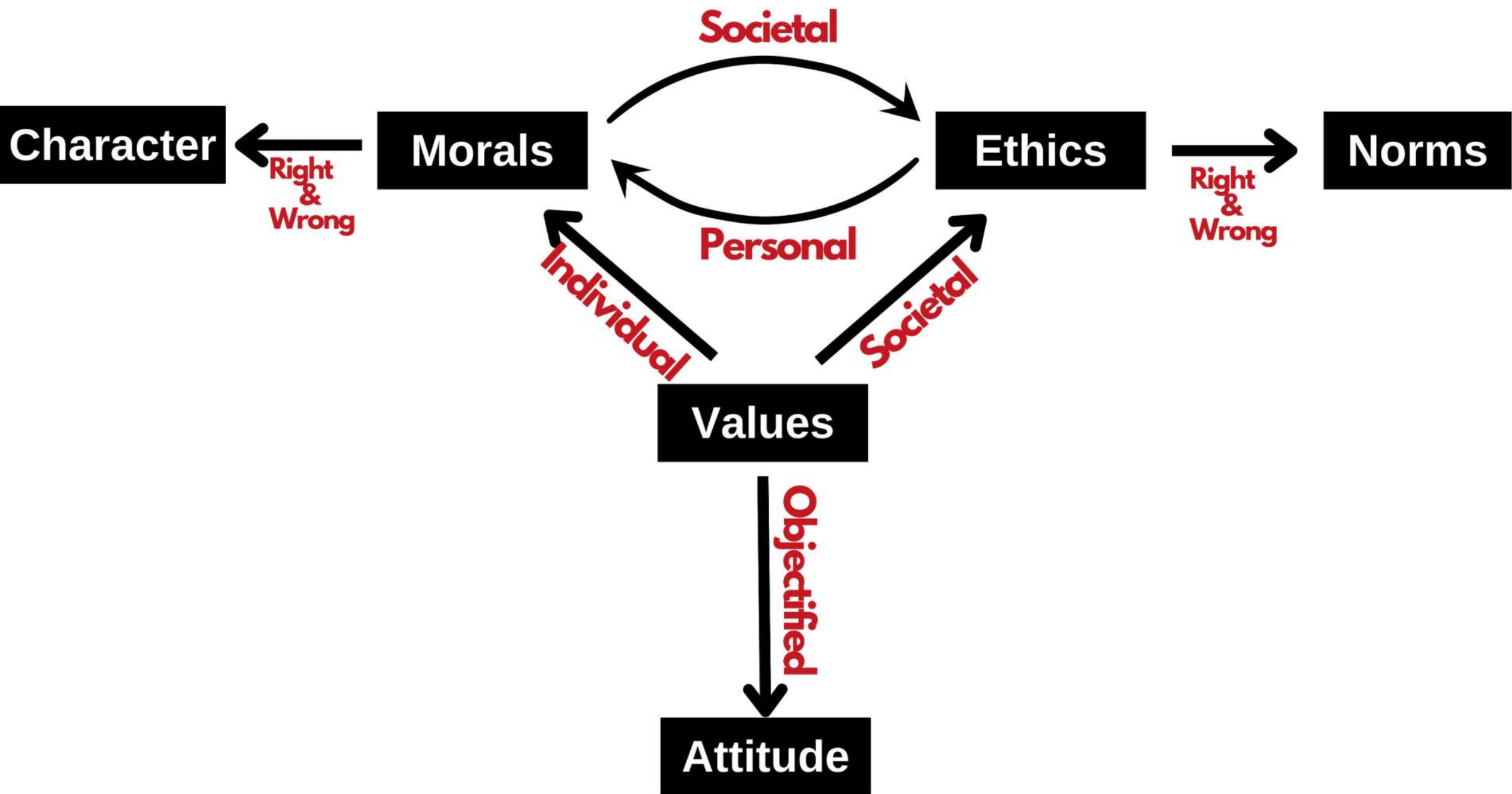
Made by parliament  
and the courts



Police and courts  
make sure people  
follow the laws



Legal consequences  
for not following  
laws include fines  
and jail time



[illegible]

## Principles

## Codes of Conduct

(Ethics, morals, laws, etc)

## Created Reality

## Experiences

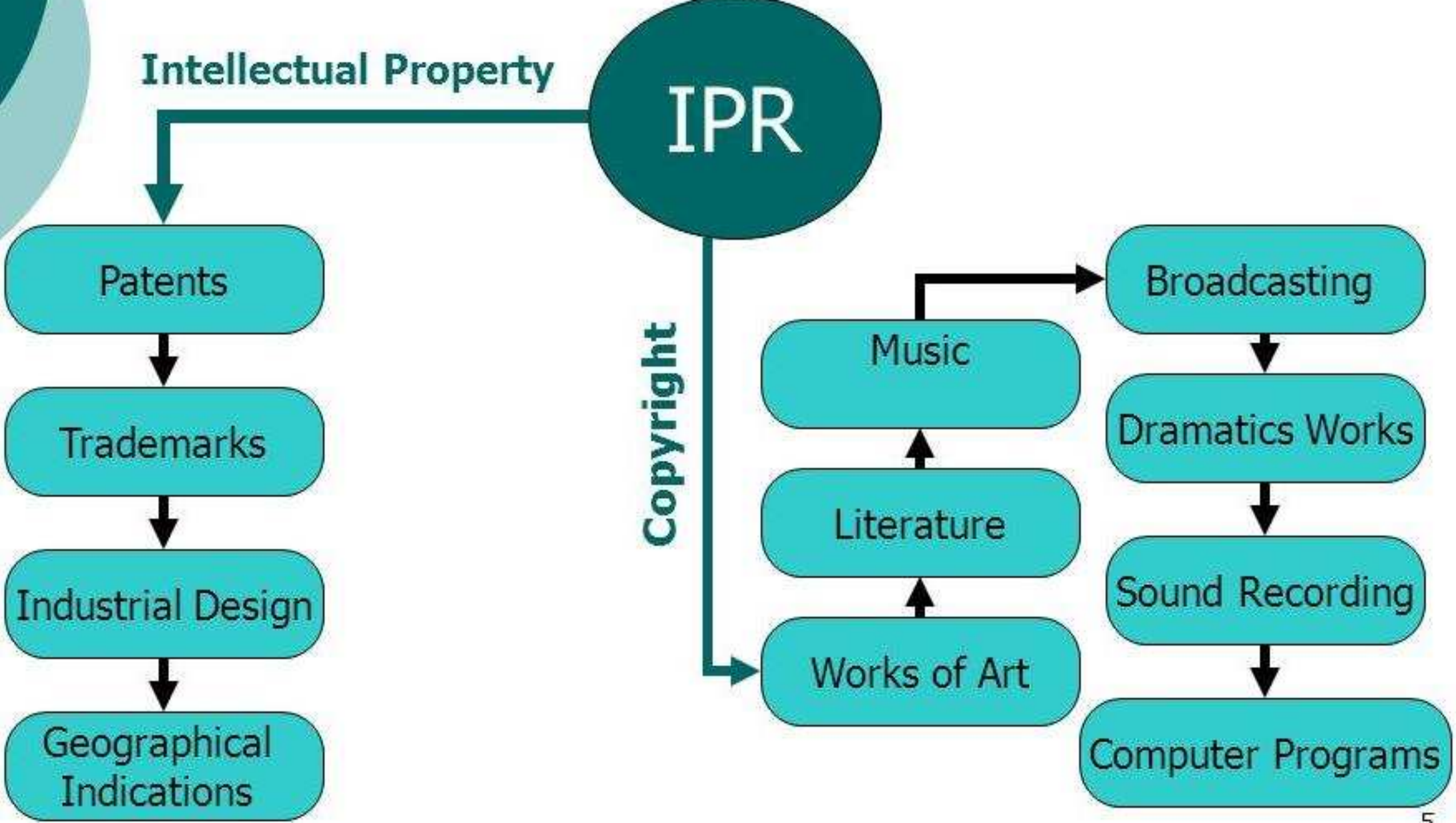
## Values (Filter)

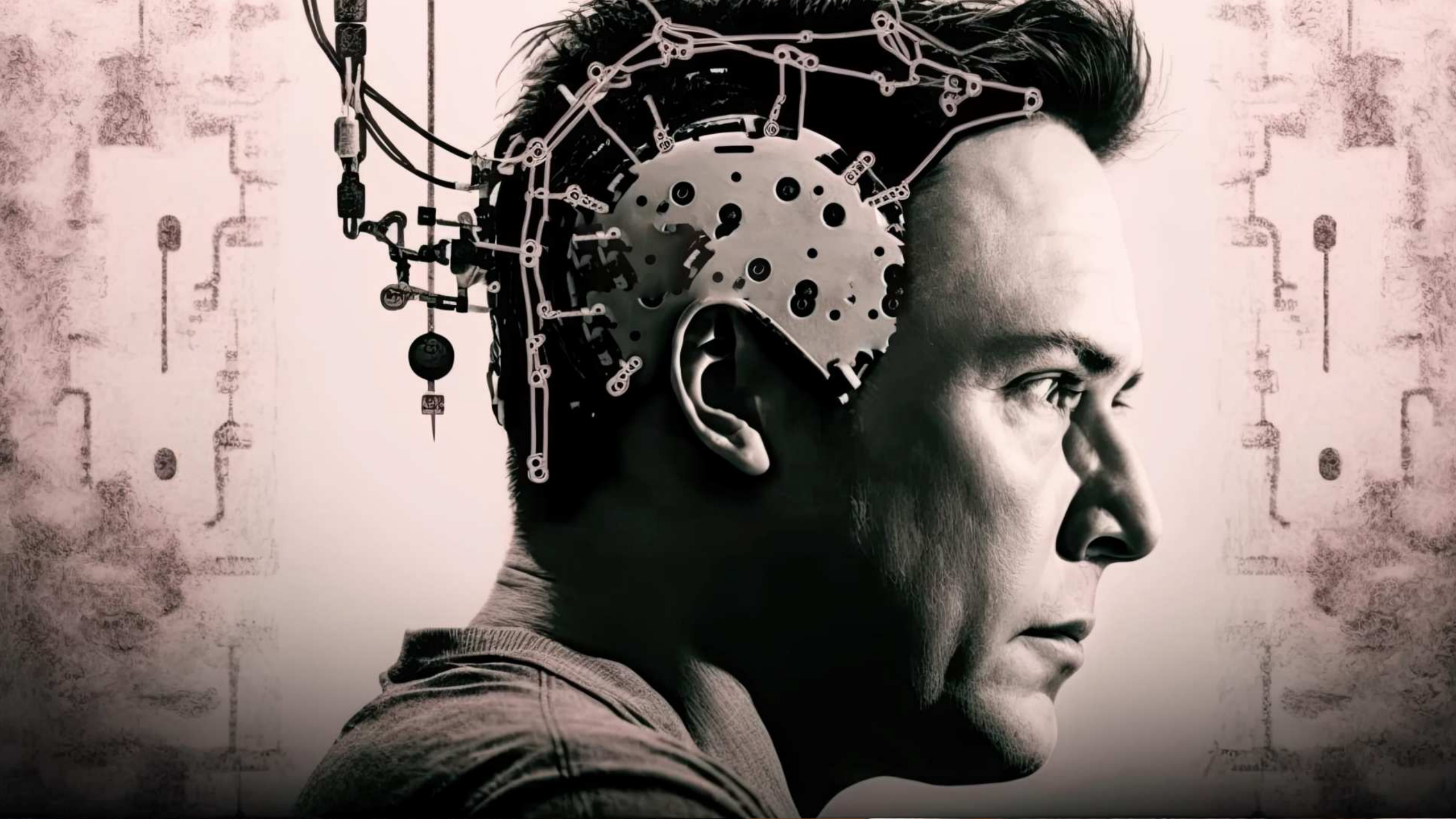
## What

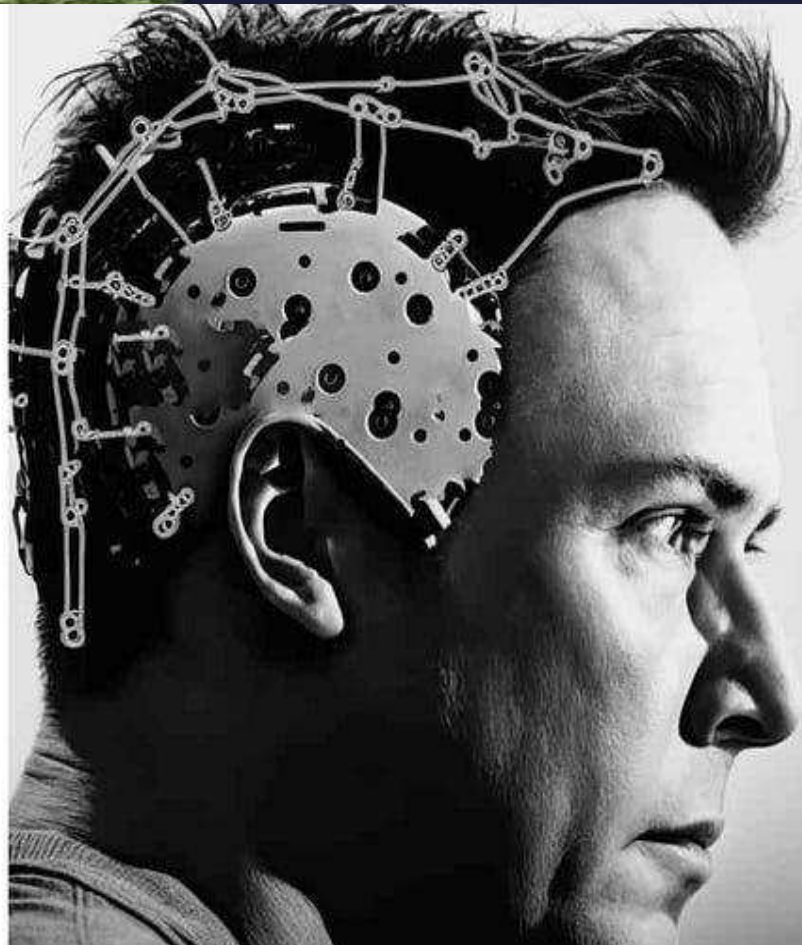
## Behavior

## How

## Consequence







Elon Musk's company Neuralink has received approval from the FDA to begin the first human trials of its brain-computer interface (BCI) device. The announcement was made on May 25, 2023, and marks a major milestone for the company



# Disinformation

Misinformation

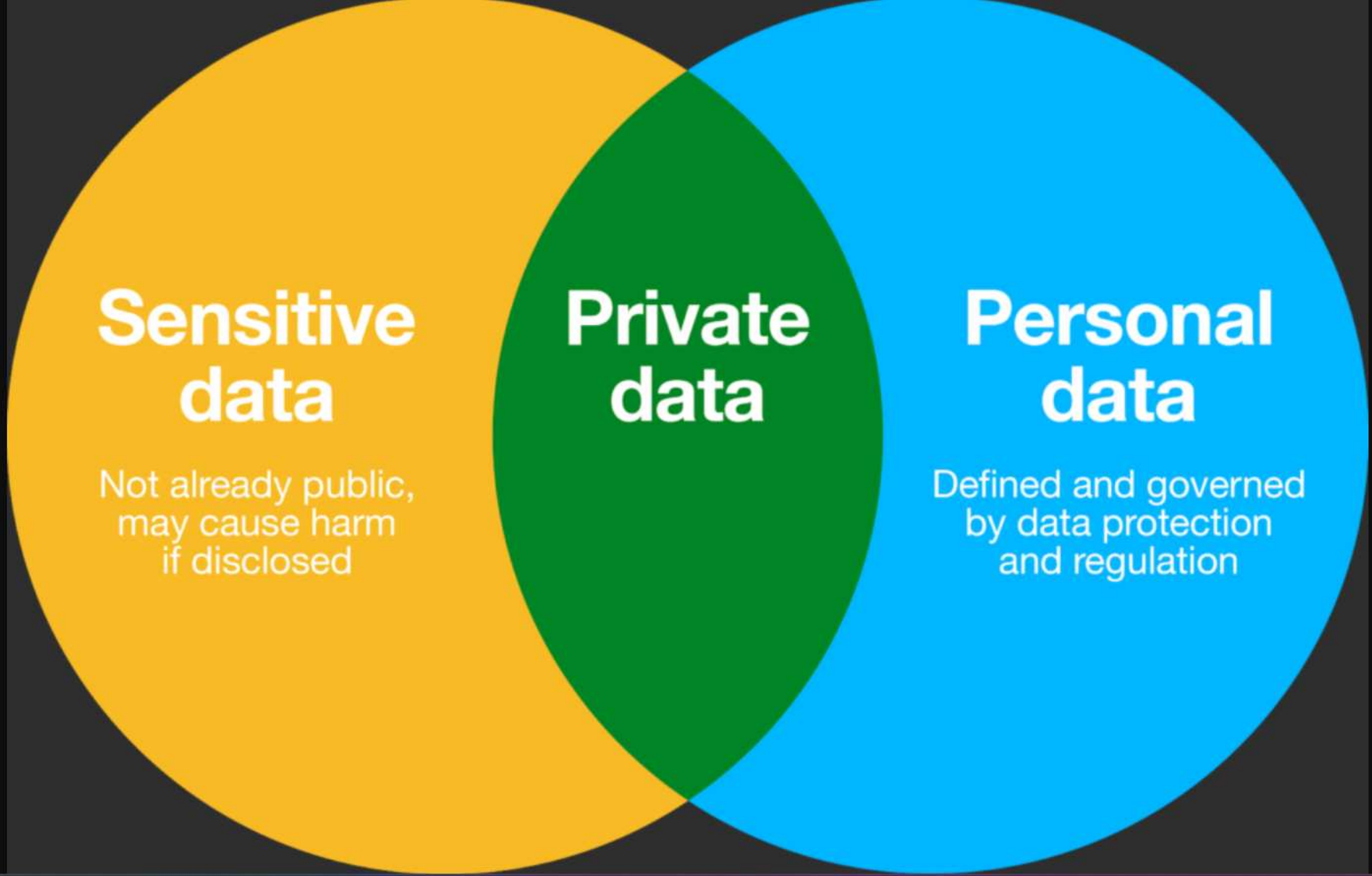
...is false info  
that spreads  
– **regardless  
of intent** to  
mislead  
others

...is  
**deliberately**  
created to  
harm,  
manipulate, or  
mislead.

...is based on  
fact but taken  
out of context  
**to mislead,  
harm, or  
manipulate.**

Malinformation





A Venn diagram with two overlapping circles. The left circle is yellow and labeled 'Sensitive data'. The right circle is blue and labeled 'Personal data'. The intersection of the two circles is a darker green color and labeled 'Private data'. Below the 'Sensitive data' label is the text 'Not already public, may cause harm if disclosed'. Below the 'Personal data' label is the text 'Defined and governed by data protection and regulation'.

## **Sensitive data**

Not already public,  
may cause harm  
if disclosed

## **Private data**

## **Personal data**

Defined and governed  
by data protection  
and regulation

# ETHICAL

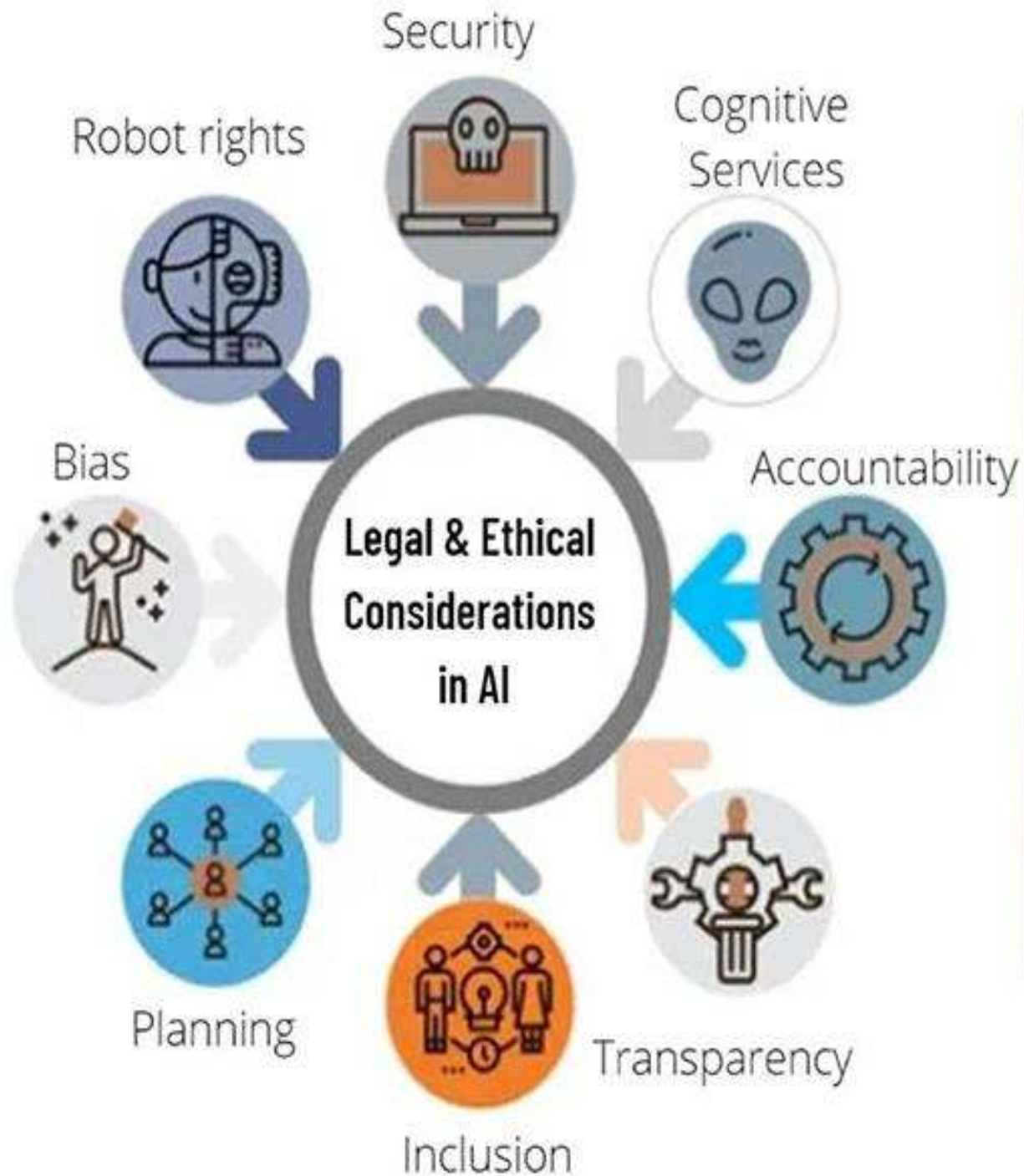
*Regulation*

*Privacy*

*Mitigation of Bias*

*Transparency*

*Relevance*



# LEGAL

*Governance*

*Confidentiality*

*Liability*

*Accuracy*

*Decision Making*



Sam Altman  
CEO, OPENAI

It's, it's one of my areas of greatest concern.

Mr. Samuel Altman



Sen. Josh Hawley (R-Mo.)

Should we be concerned about models that can?

MR. HAWLEY

MR. BLUMEN

# Fastest growing vs. fastest declining jobs

## Top 10 fastest growing jobs

|     |                                     |
|-----|-------------------------------------|
| 1.  | AI and Machine Learning Specialists |
| 2.  | Sustainability Specialists          |
| 3.  | Business Intelligence Analysts      |
| 4.  | Information Security Analysts       |
| 5.  | Fintech Engineers                   |
| 6.  | Data Analysts and Scientists        |
| 7.  | Robotics Engineers                  |
| 8.  | Electrotechnology Engineers         |
| 9.  | Agricultural Equipment Operators    |
| 10. | Digital Transformation Specialists  |

Source  
World Economic Forum, Future of Jobs Report 2023.

## Top 10 fastest declining jobs

|     |                                                                          |
|-----|--------------------------------------------------------------------------|
| 1.  | Bank Tellers and Related Clerks                                          |
| 2.  | Postal Service Clerks                                                    |
| 3.  | Cashiers and ticket Clerks                                               |
| 4.  | Data Entry Clerks                                                        |
| 5.  | Administrative and Executive Secretaries                                 |
| 6.  | Material-Recording and Stock-Keeping Clerks                              |
| 7.  | Accounting, Bookkeeping and Payroll Clerks                               |
| 8.  | Legislators and Officials                                                |
| 9.  | Statistical, Finance and Insurance Clerks                                |
| 10. | Door-To-Door Sales Workers, News and Street Vendors, and Related Workers |

Note  
The jobs which survey respondents expect to grow most quickly from 2023 to 2027 as a fraction of present employment figures



*Loss of  
Privacy **and** Confidentiality*

*Loss of Routine Jobs*

*Writers Guild of America  
Against AI ChatGPT Generative Pre-Trained Transformer*

*Age of Disinformation*

*Cloned Voices, Driverless Vessels, Virtual Torts,*

*Lack of Unified Regulation on  
AI used in Maritime Law*

*Cyber Forensics*

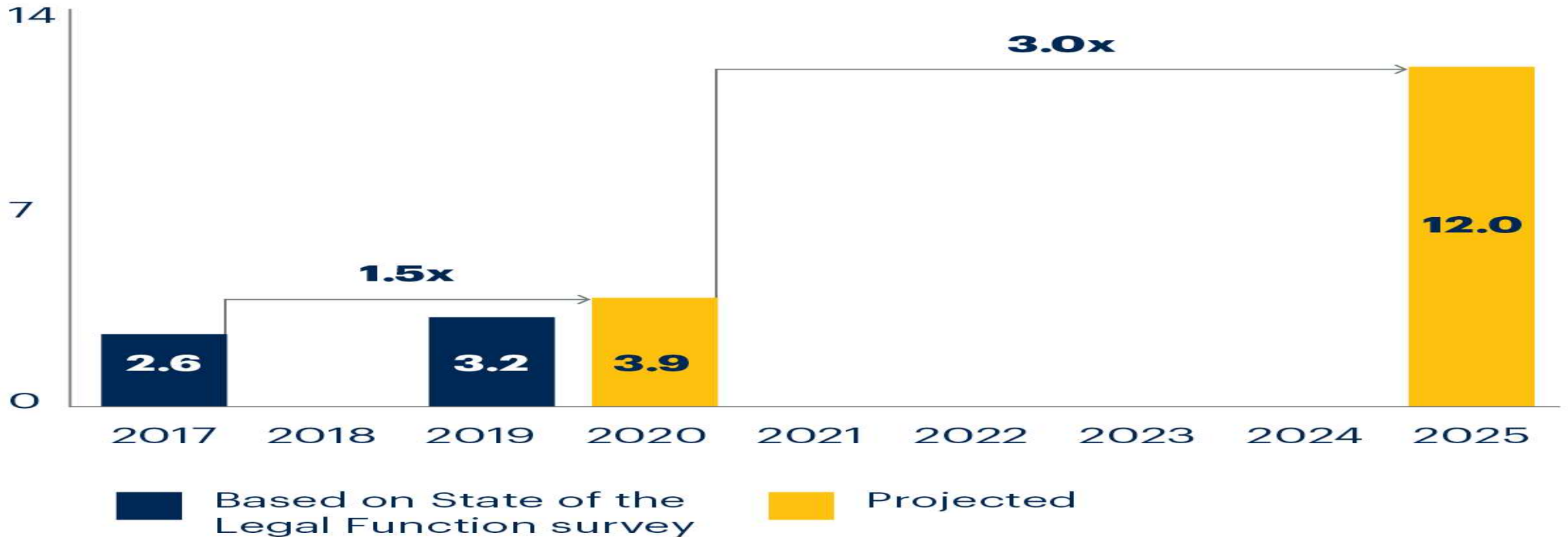
*Maritime Dispute Resolution*

*IPRs Lapses*

*Drone Aviations with AI*

# Legal tech budgets are growing amid crisis

Average legal technology budget as a percentage of total legal department budget



[gartner.com/SmarterWithGartner](https://gartner.com/SmarterWithGartner)

n = 142 (2018), n = 116 (2020)  
Source: Gartner State of the Legal Function  
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**Gartner**

