

# **Artificial Intelligence**

**Tour of the World Wide Web – Session 8**

**Duke OLLI Fall 2023**

**David Shamlan**

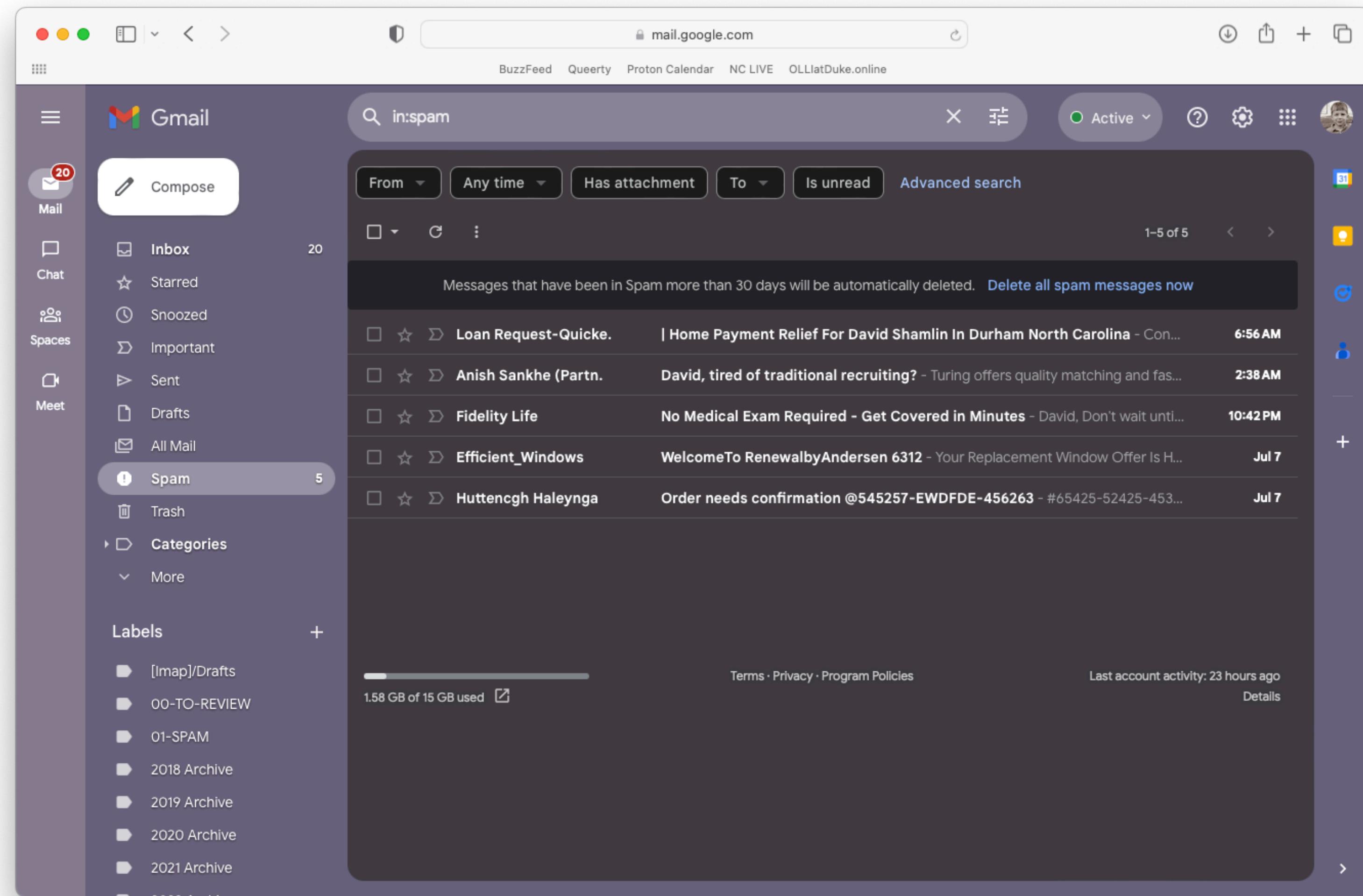
# Example: Recommendation Engines

The Netflix interface displays a "TV Action & Adventure" section with thumbnails for "REBIRTH", "THE LAST KINGDOM", "THE WITCHER", "WALKING DEAD", "THE 100", and "ARCHER". Below it is a "Crime & Thrillers" section with thumbnails for "ARGO", "ARTICLE 15", "AMERICAN HUSTLE", "SHERLOCK HOLMES", "ONE DAY", and "TALVAR". A "Because you watched Friends" section follows, featuring thumbnails for "KIM'S CONVENIENCE", "#blackAF", "MERRY HAPPY WHATEVER", "REAL ROB", "marlon", and "one day at a time".

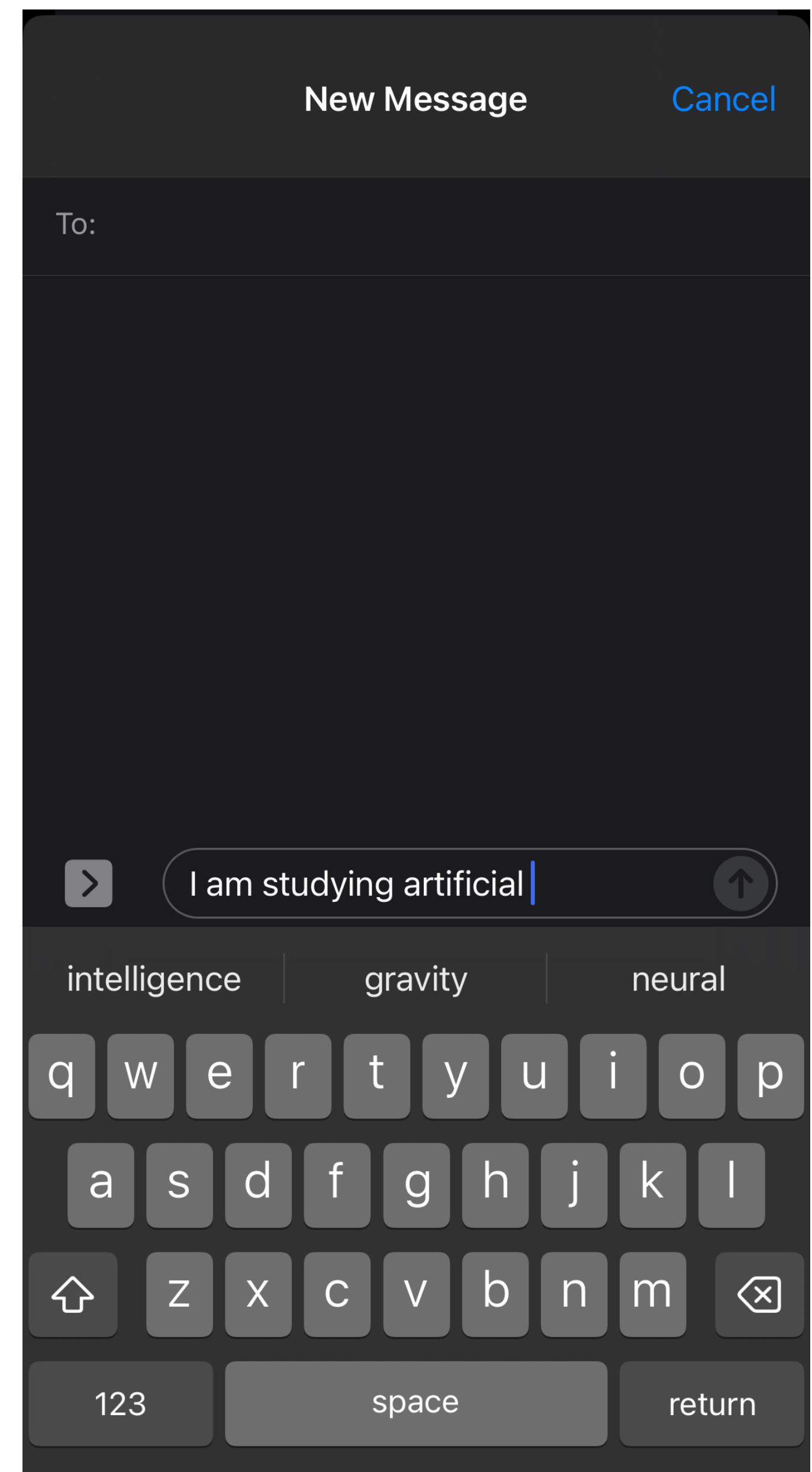
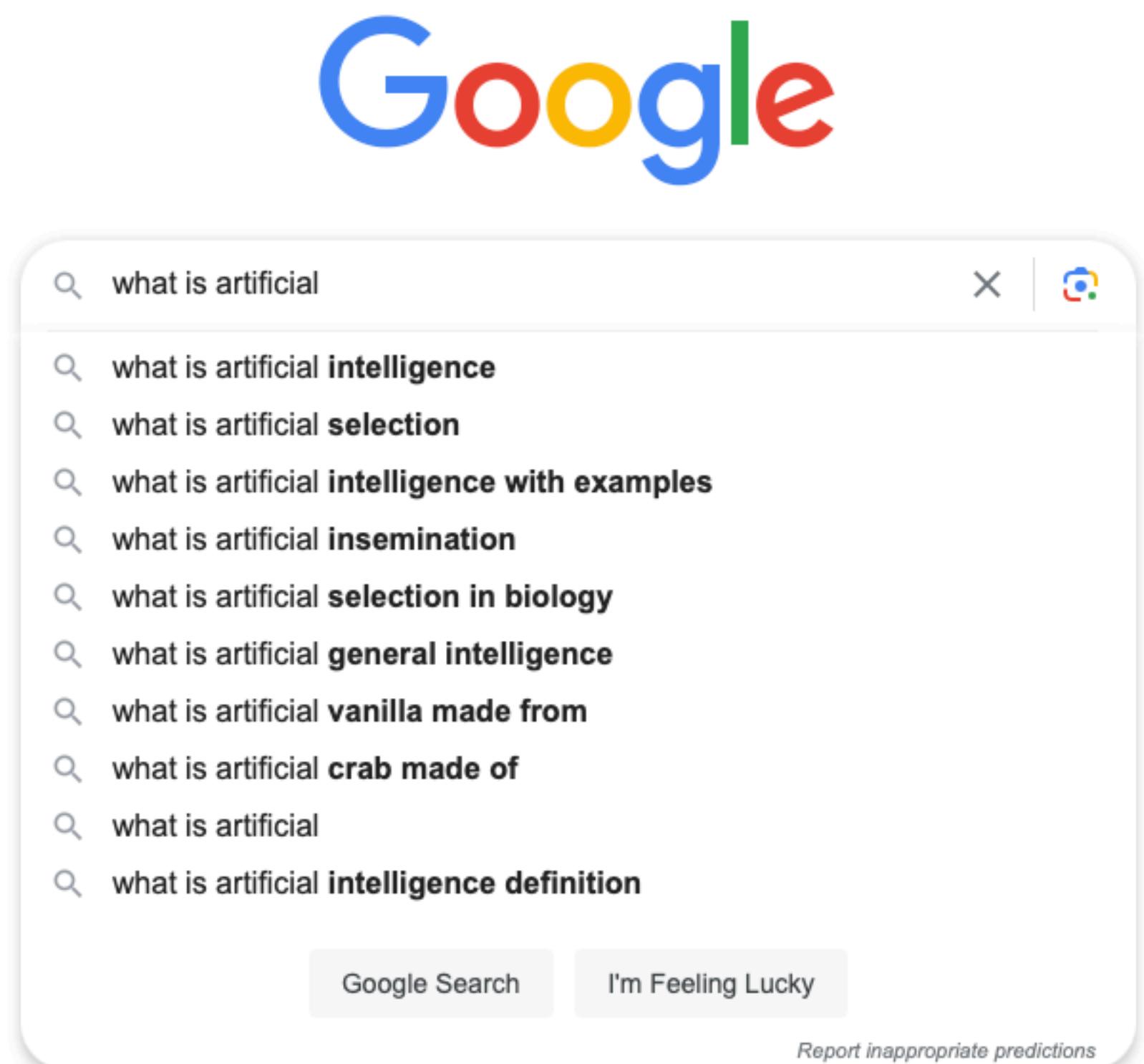
The Amazon interface shows a "Top picks for you" section with ten recommended items arranged in two rows of five. The items include:

Item 1	Item 2	Item 3	Item 4	Item 5
Be Exceptional: Master the Five Traits That Set Extraordinary People Apart by Joe Navarro	Worthy of Love: A Gentle and Restorative Path to Healing After Narcissistic Abuse by Debbie Mirza	Behavioral Insights (The MIT Press Essential Knowledge series) by Richard H. Thaler and Eldar Shafir	Mijello Airtight Watercolor 18-Well Blue Palette	Winsor & Newton Cotman Watercolor Paint, 8ml (0.27-oz)...
Barking Up the Wrong Tree by Eric Barker	Recovery from Gaslighting & Narcissistic Abuse, Codependency & Complex PTSD (3 in 1)...	DANIEL SMITH Extra Fine Watercolor 15ml Paint Tube,...	Recovery from Narcissistic Abuse, Gaslighting, Codependency and Complex PTSD (4 Books in 1)...	Becoming the Narcissist's Nightmare: How to Devalue and Discard the Narcissist While...

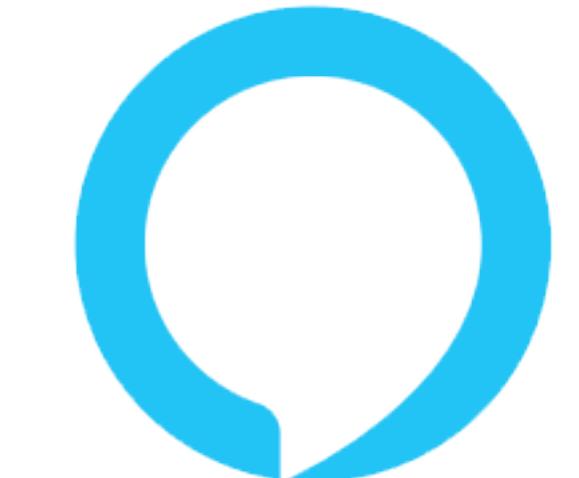
# Example: Email Spam Filters



# Example: Autocompletion



# Example: Voice Recognition



alexa

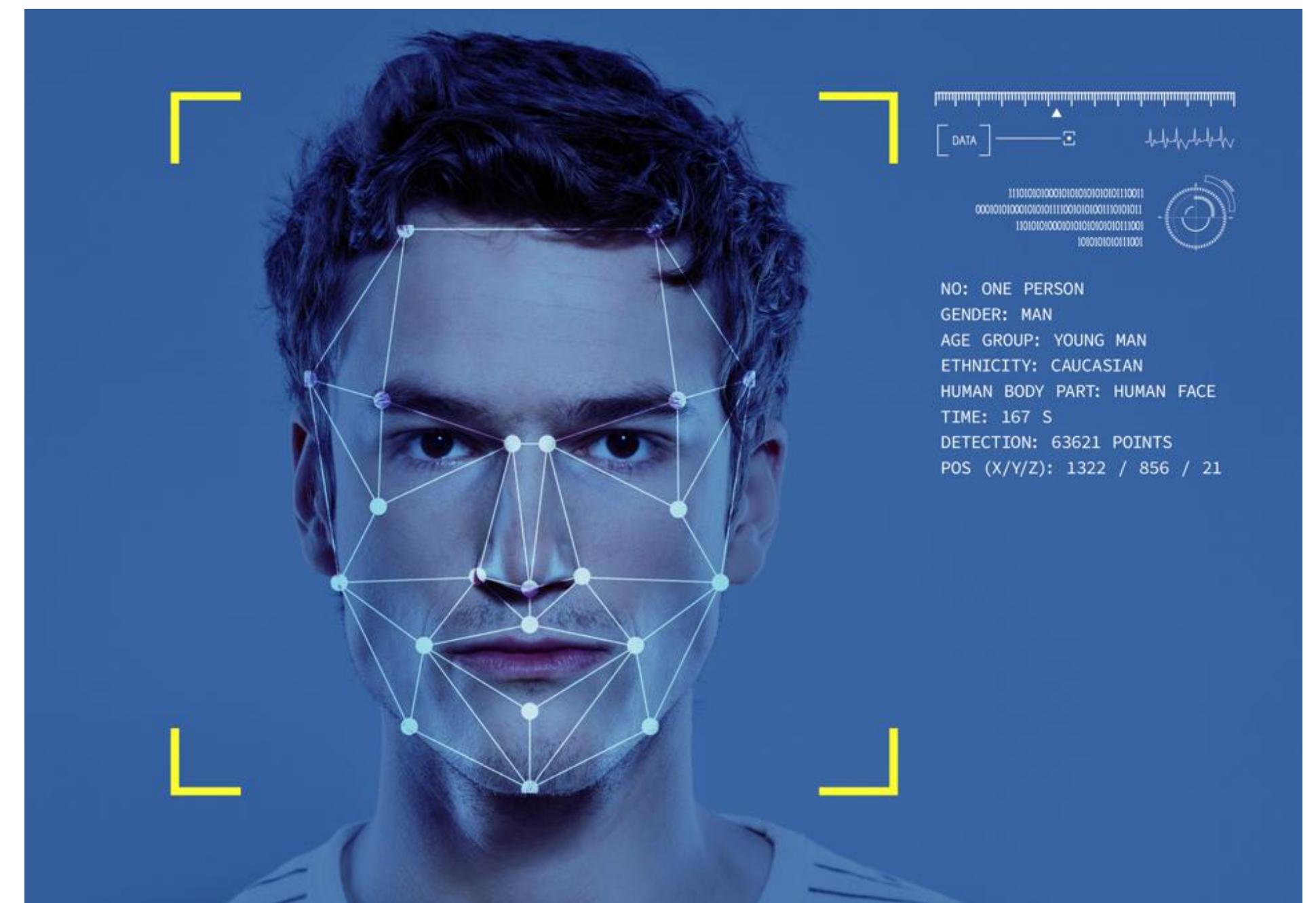
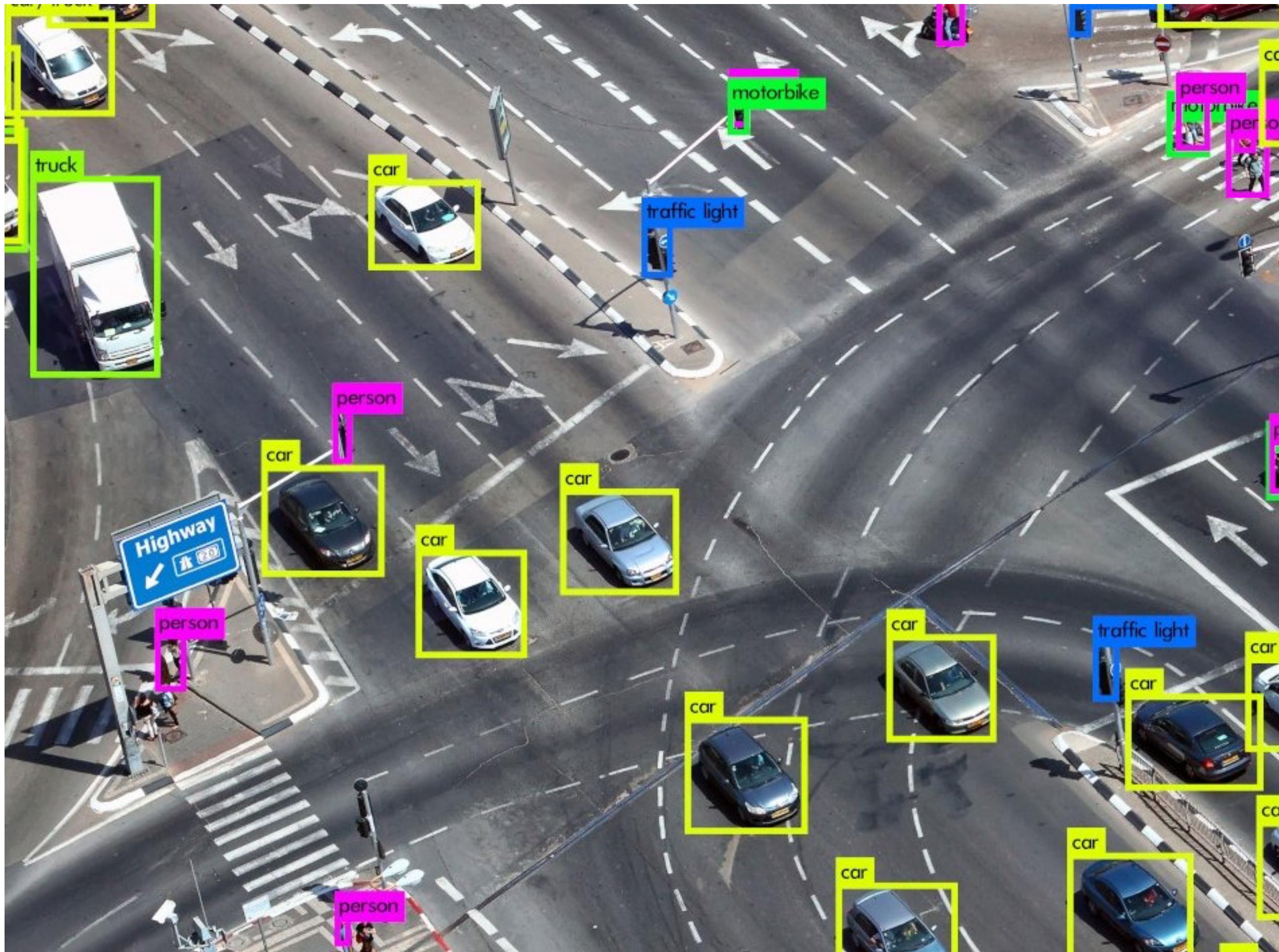


Bixby



Siri

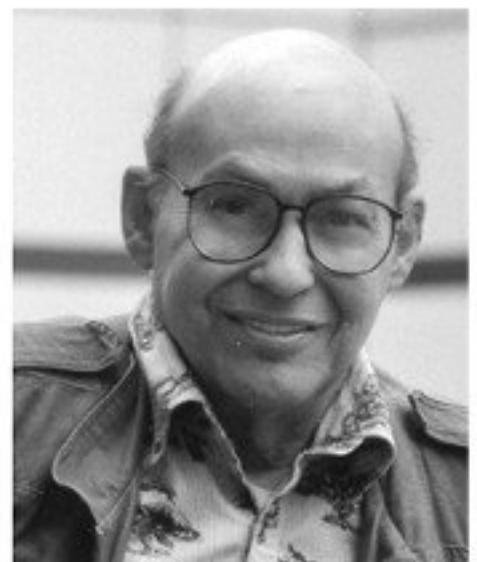
# Example: Image Recognition



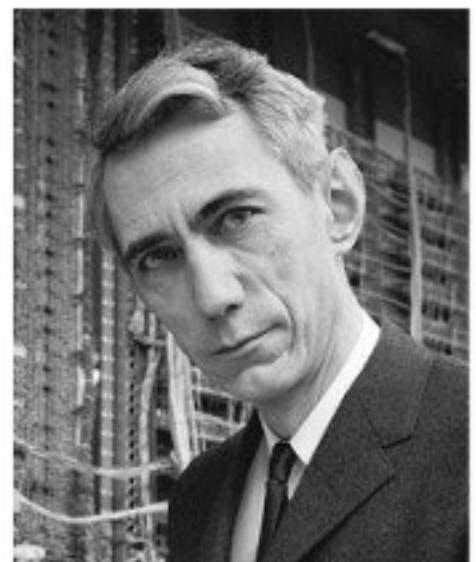
## 1956 Dartmouth Conference: The Founding Fathers of AI



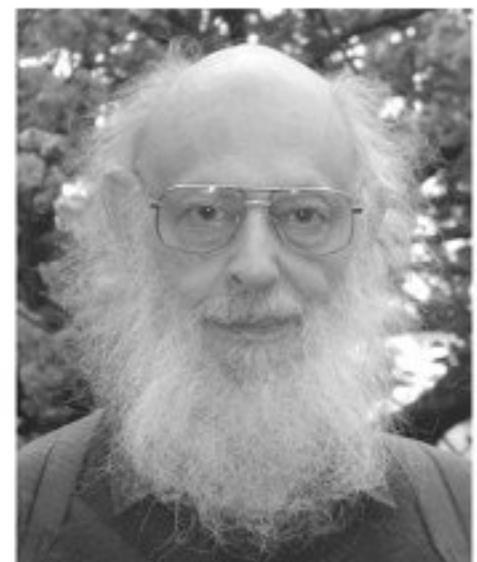
John McCarthy



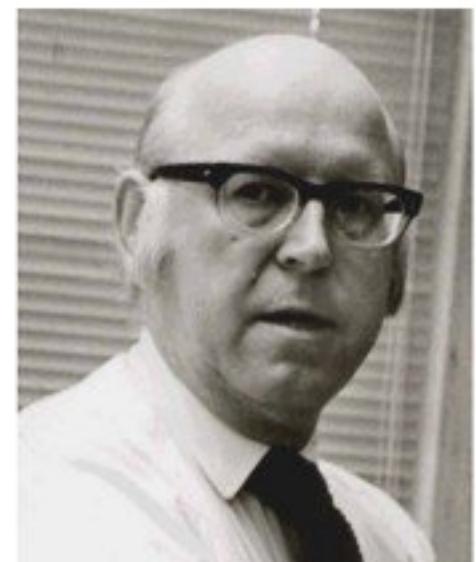
Marvin Minsky



Claude Shannon



Ray Solomonoff



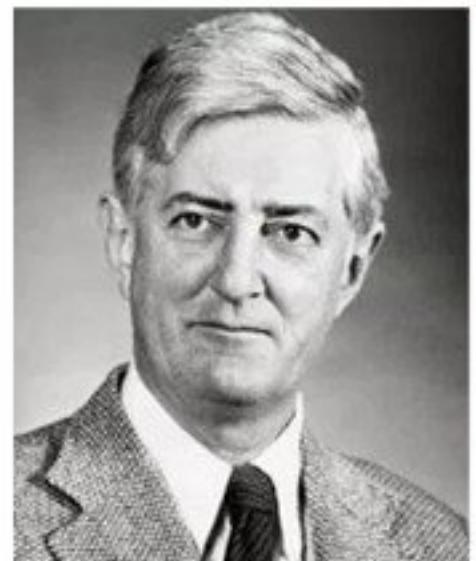
Alan Newell



Herbert Simon



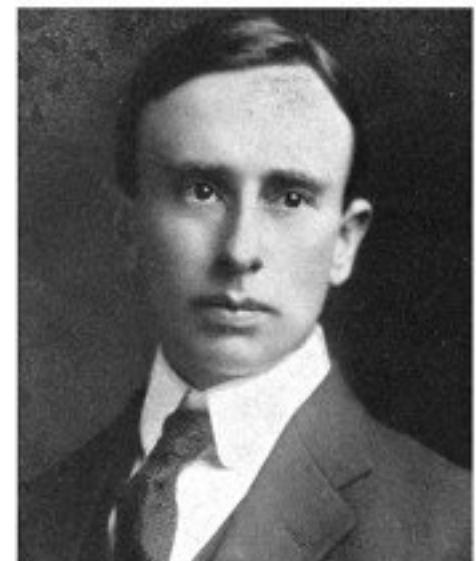
Arthur Samuel



Oliver Selfridge



Nathaniel Rochester



Trenchard More



Alan Turing  
“Computing Machinery and Intelligence”  
Mind, October 1950

Reactive

Limited Memory

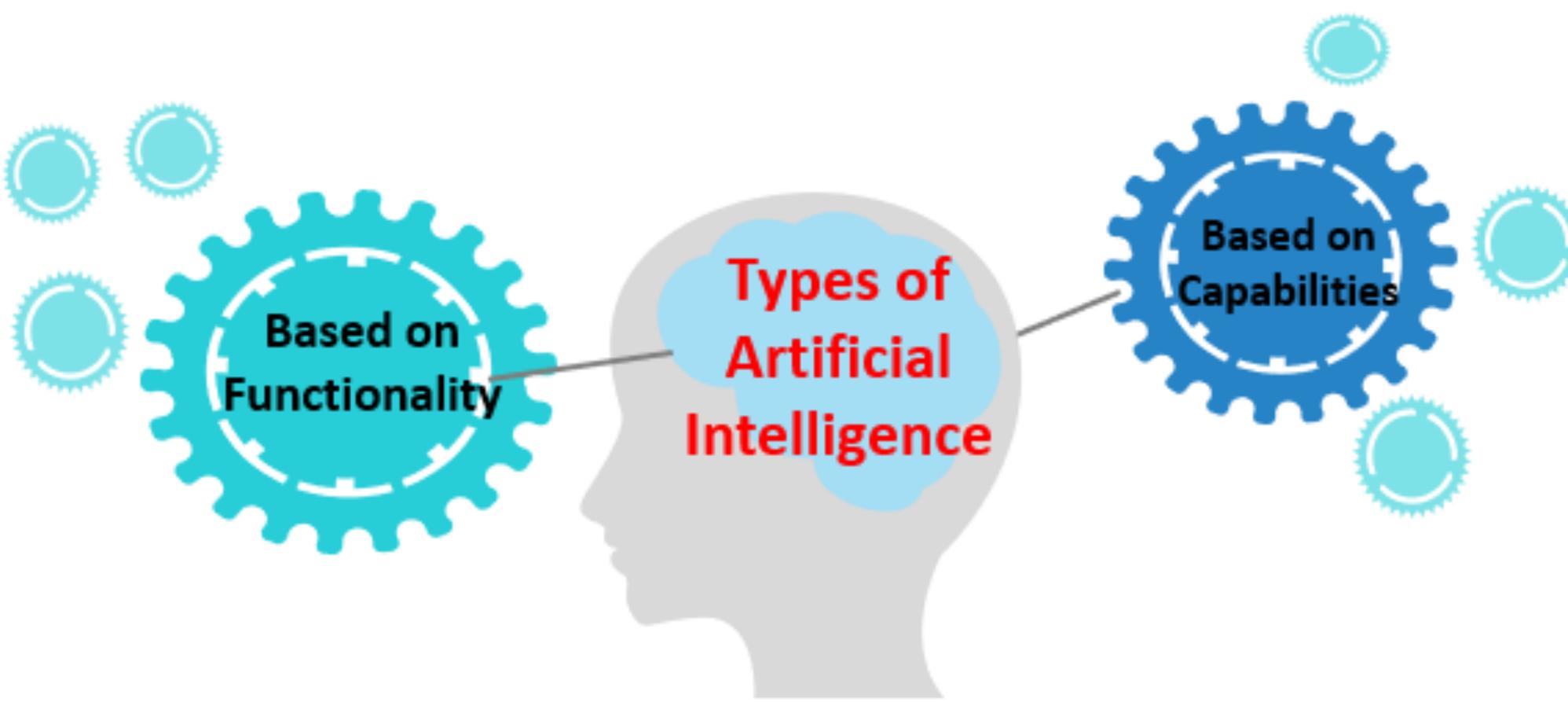
Theory of Mind

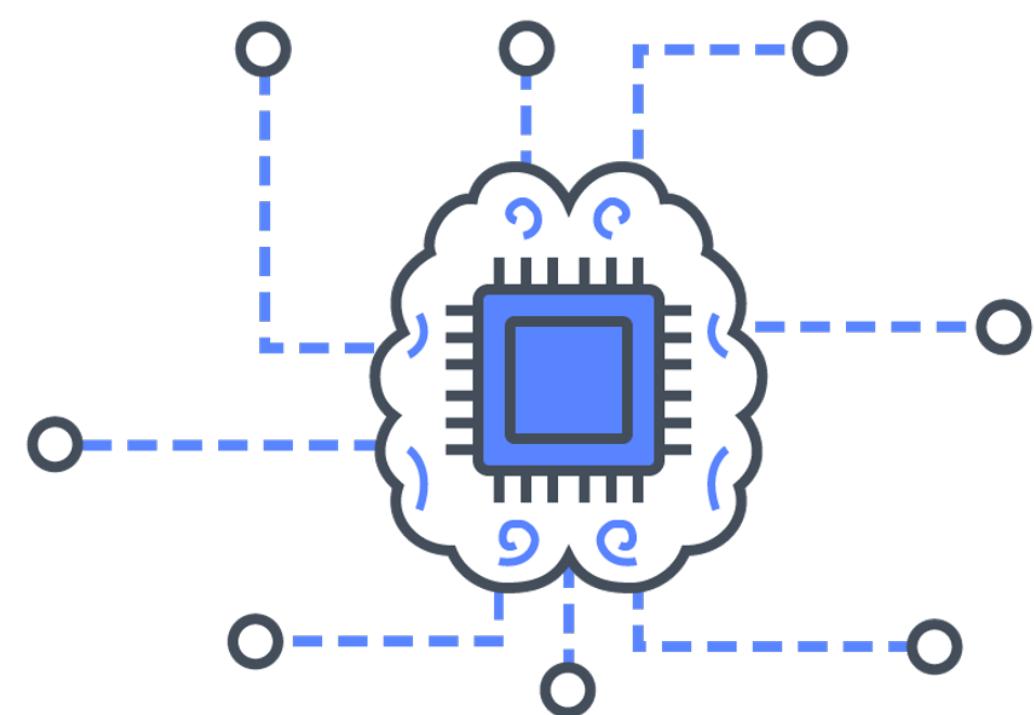
Self Aware

Narrow (ANI)

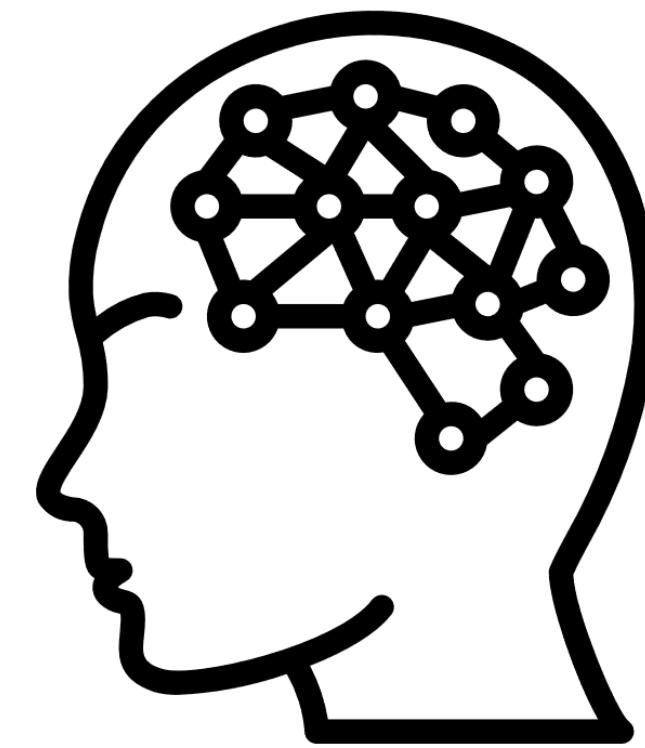
General (ASI)

Super (AGI)

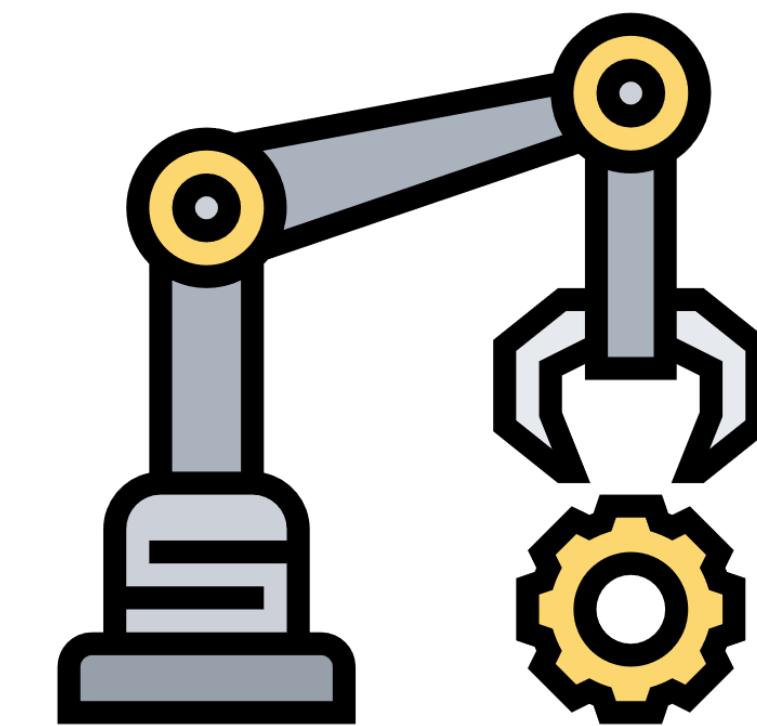




Machine Learning



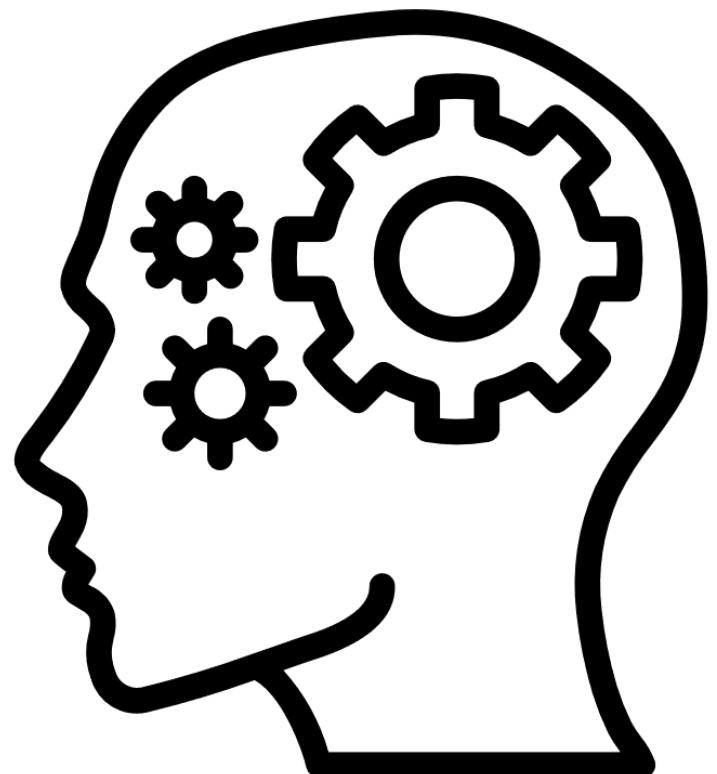
Neural Networks



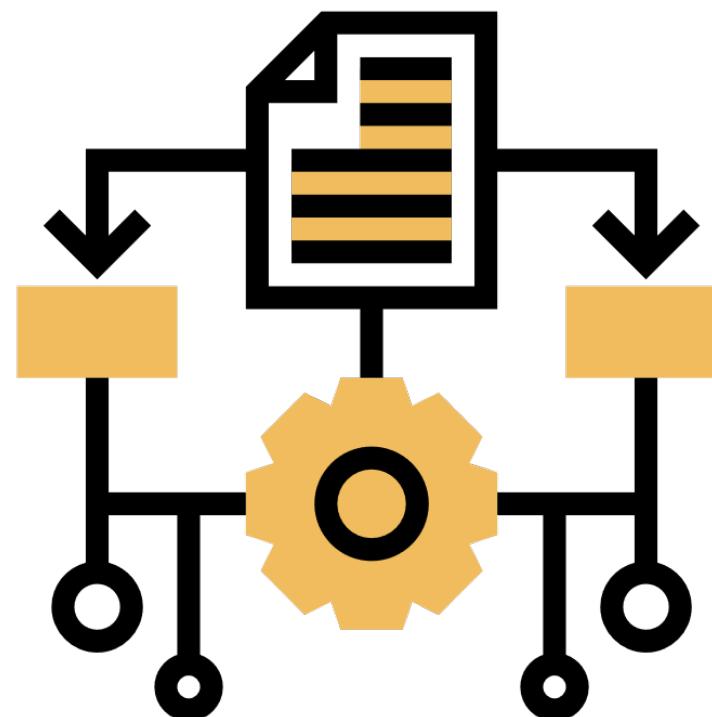
Robotics



Pattern Recognition



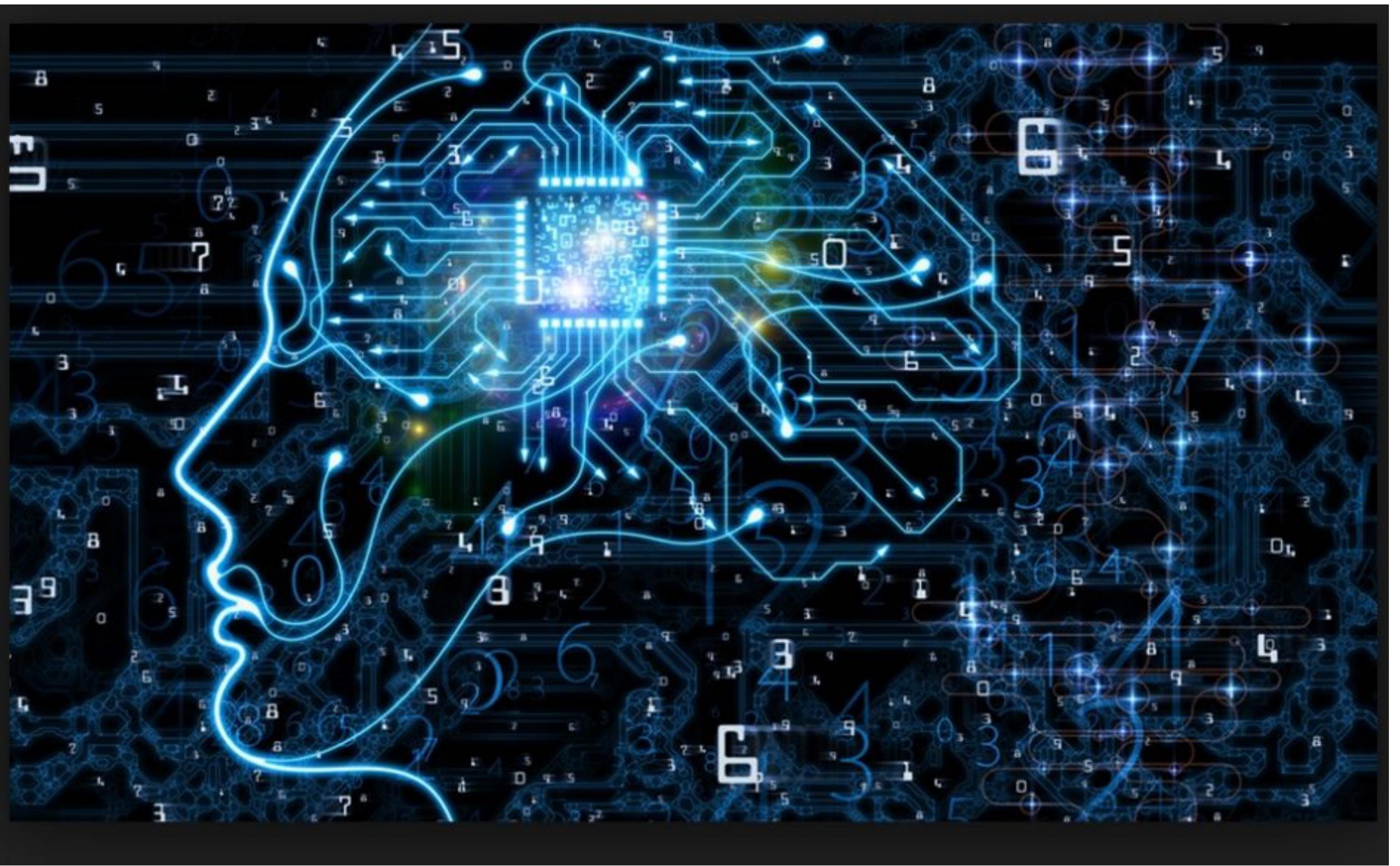
Expert Systems



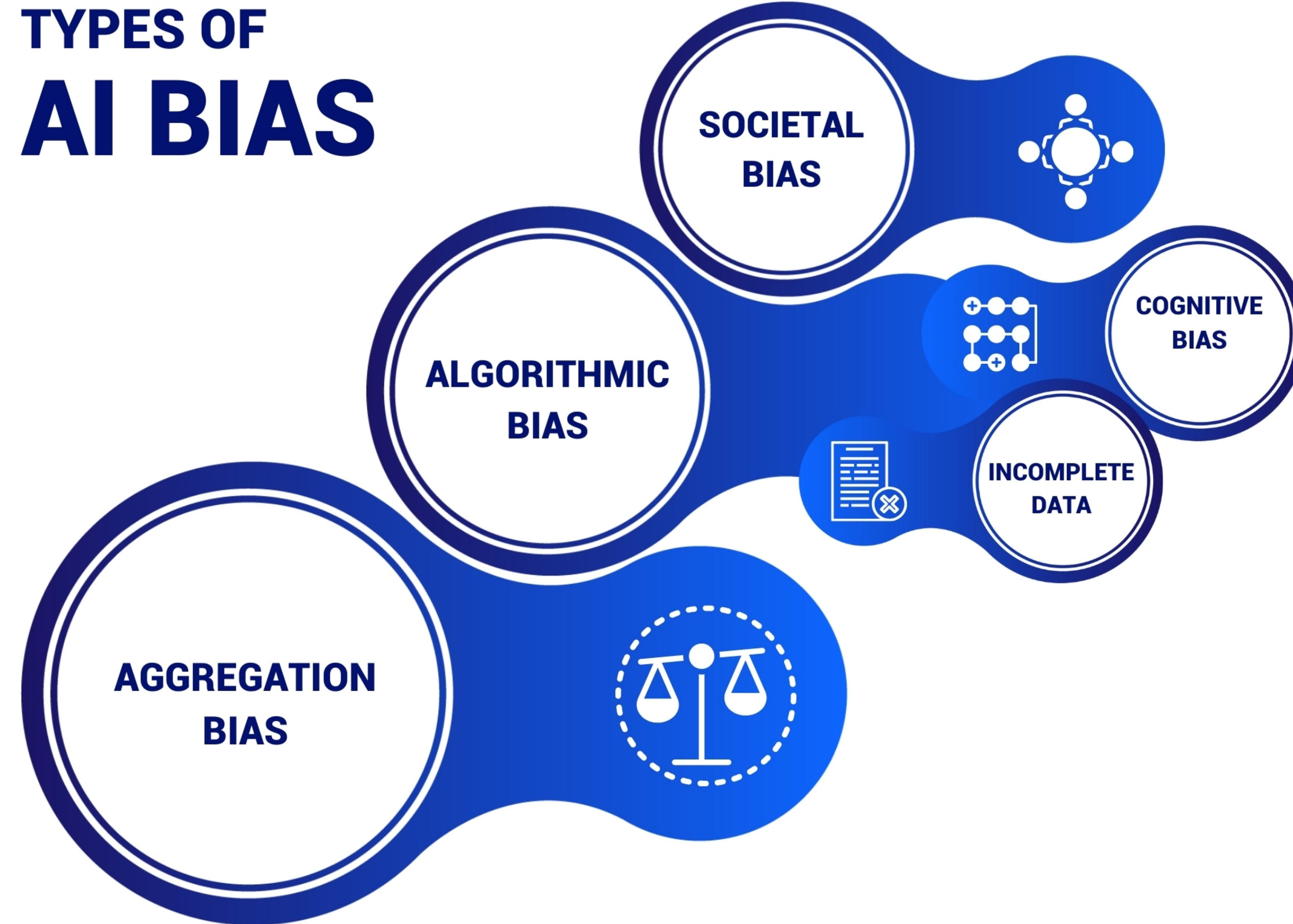
Fuzzy Logic



Natural Language Processing

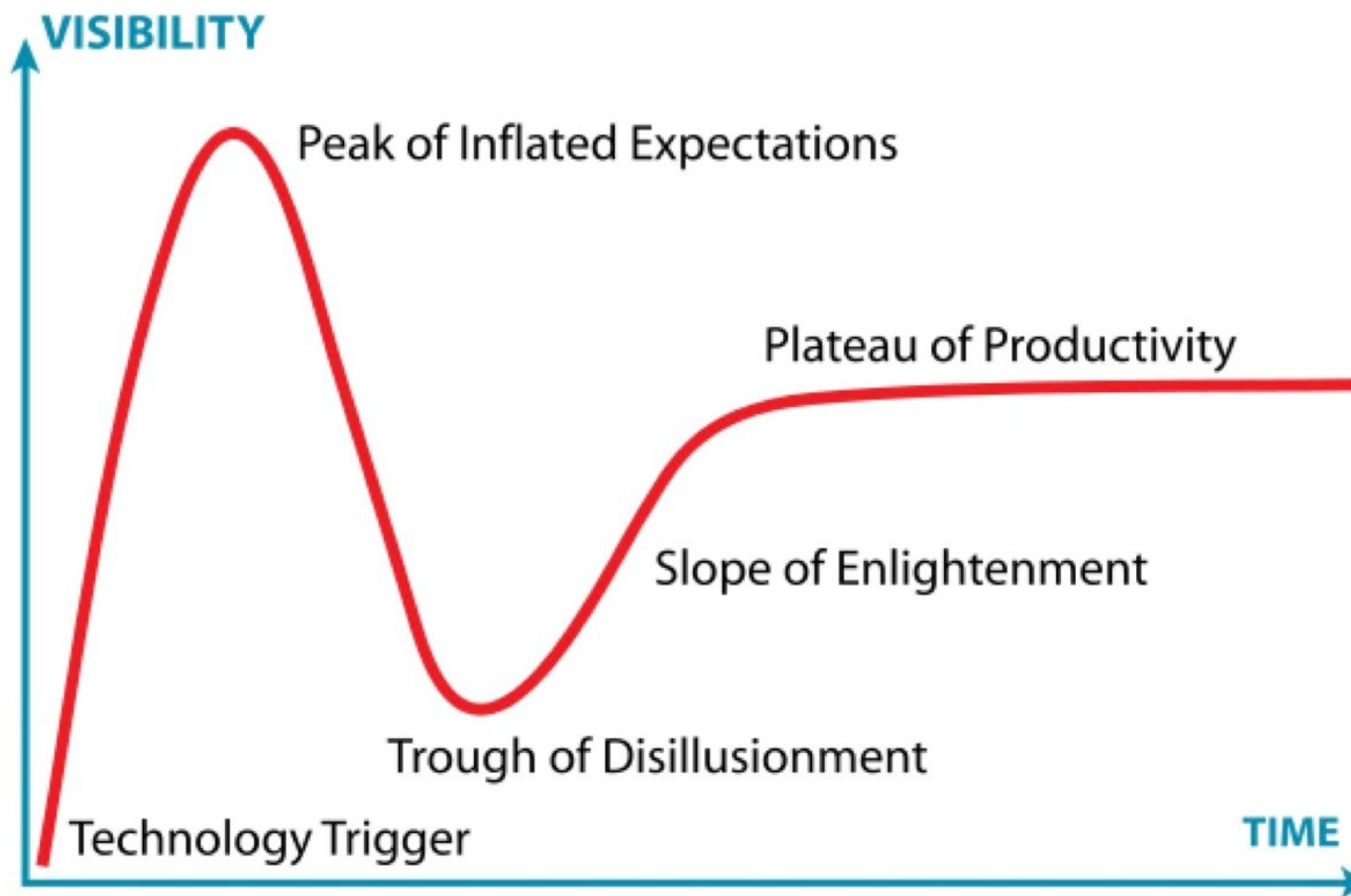


# **TYPES OF AI BIAS**



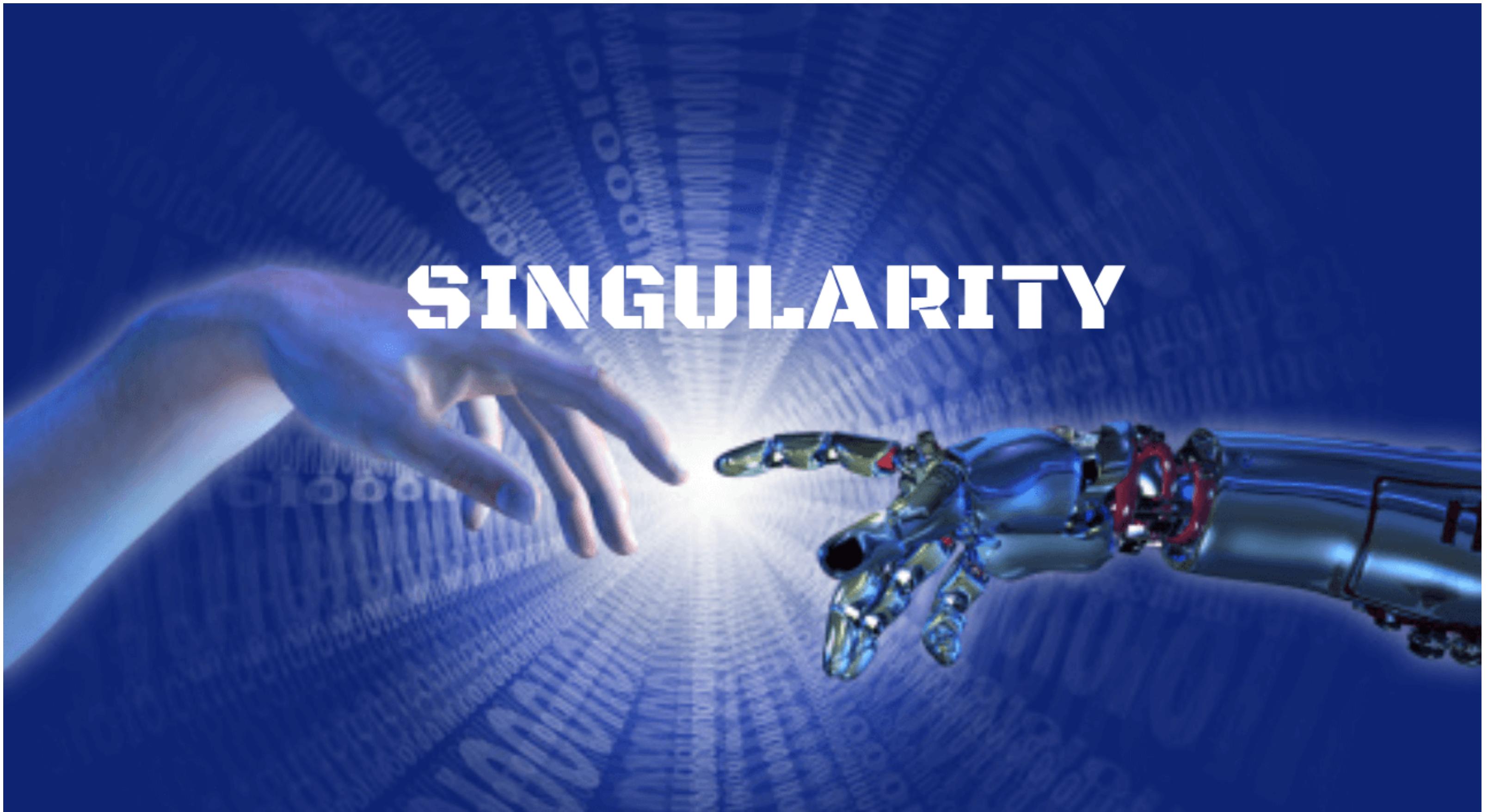


# Gartner Hype Cycle



# Impacts

- Workforce
- Education
- Mis-/dis-information and Deepfakes



# Executive Order Signed on Oct 30, 2023

- Standards for AI Safety and Security
- Protecting Americans' Privacy
- Advancing Equity and Civil Rights
- Standing Up for Consumers, Patients, and Students
- Supporting Workers
- Promoting Innovation and Competition
- Advancing American Leadership Abroad
- Ensuring Responsible and Effective Government Use of AI

**See more here:** [FACT SHEET: President Biden Issues Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence](#)