



Please write an outline for a talk on AI in the real estate industry

ChatGPT



Sure! Here's an outline for a talk on AI in the real estate industry:  

I. Introduction

- Brief overview of the real estate industry
- Explanation of what AI is and how it's being used in real estate

II. Benefits of AI in Real Estate

- Increased efficiency and accuracy in property valuation
- Personalized property recommendations for buyers
- Streamlined property management processes
- Improved customer service and experience

III. AI Applications in Real Estate



AI used by a real estate agent

Generate image



Stable Diffusion

What is AI?

How did we get here?

Where will it lead us?

CBRE – Texas Multifamily Exclusive Client Forum
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What
is AI?

History
of AI

AI
Today

?

AI Ethics & Safety

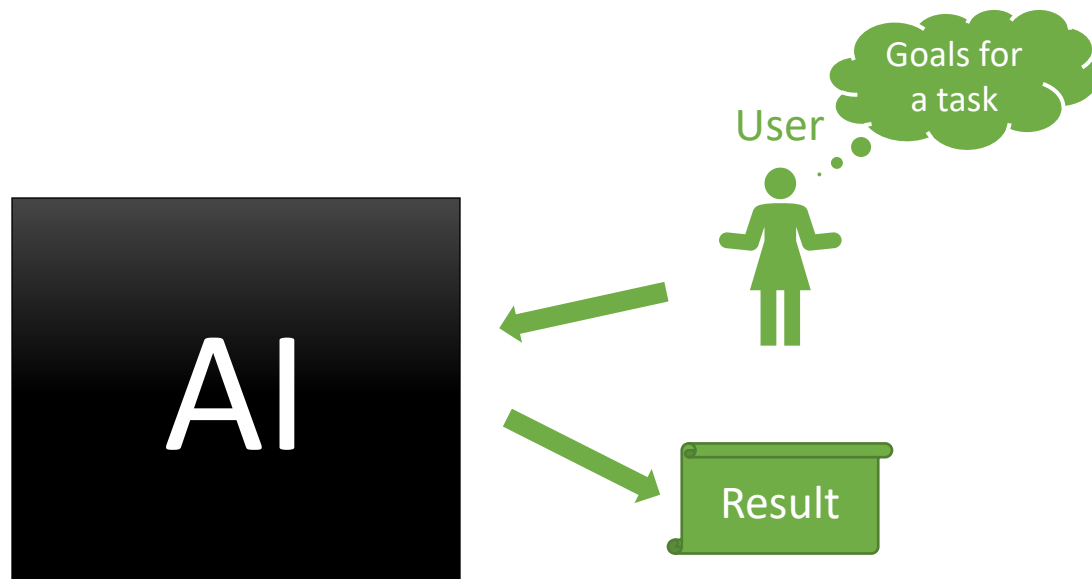


What is AI?

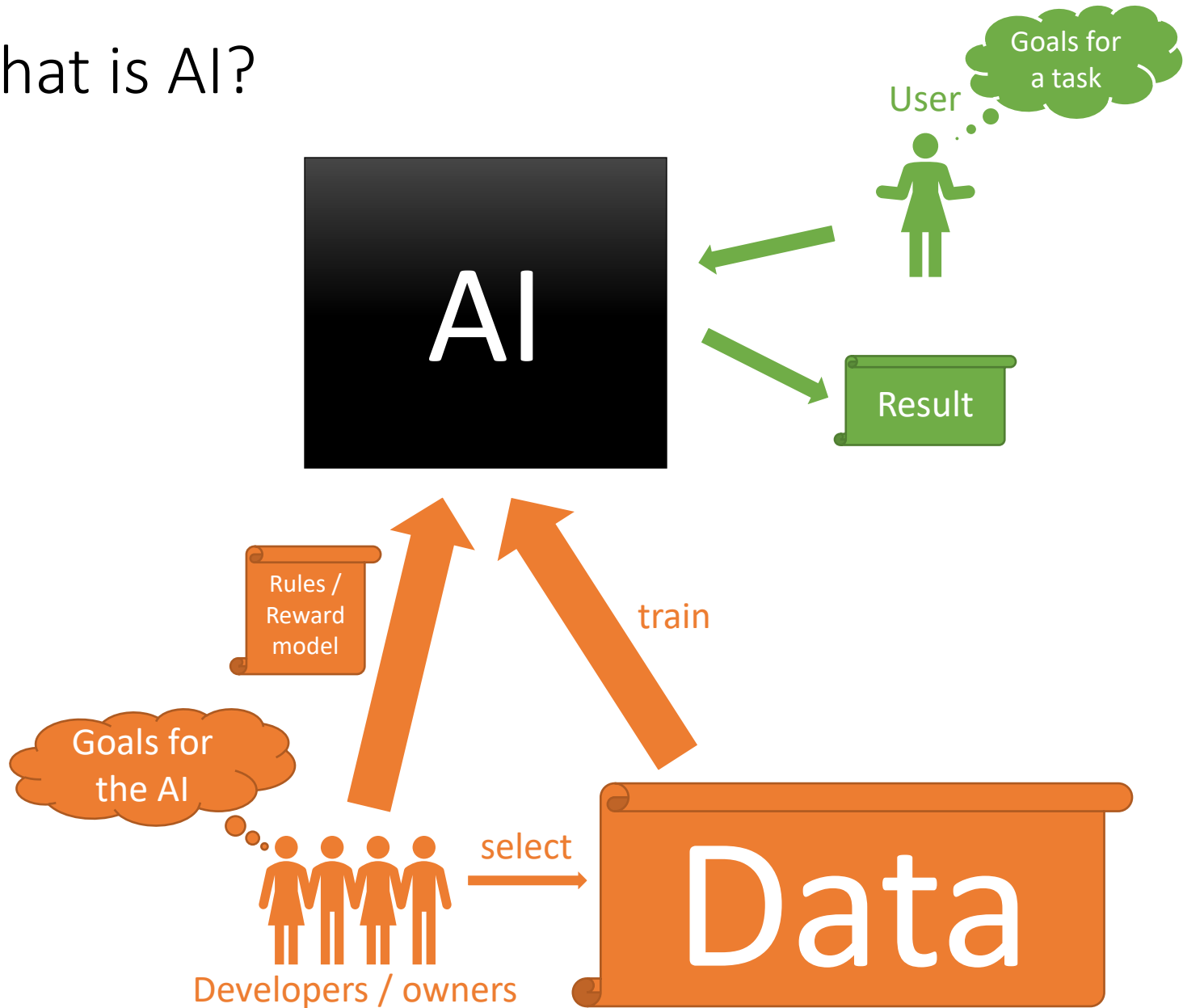


ASIMO (Advanced Step in Innovative Mobility) is a humanoid robot created by Honda in 2000

What is AI?



What is AI?



What is AI?

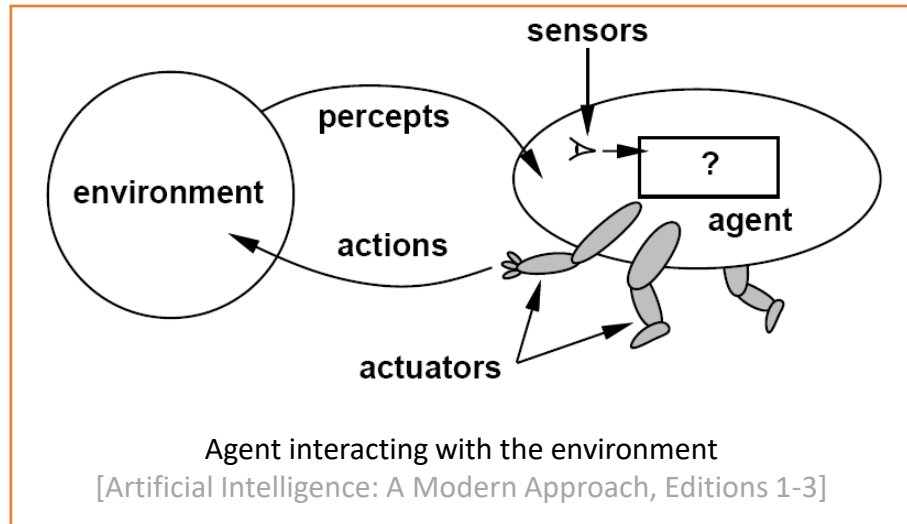
An **artificial general intelligence (AGI)** is a hypothetical intelligent agent which can understand or learn any intellectual task that human beings or other animals can.

[Wikipedia entry on AGI]

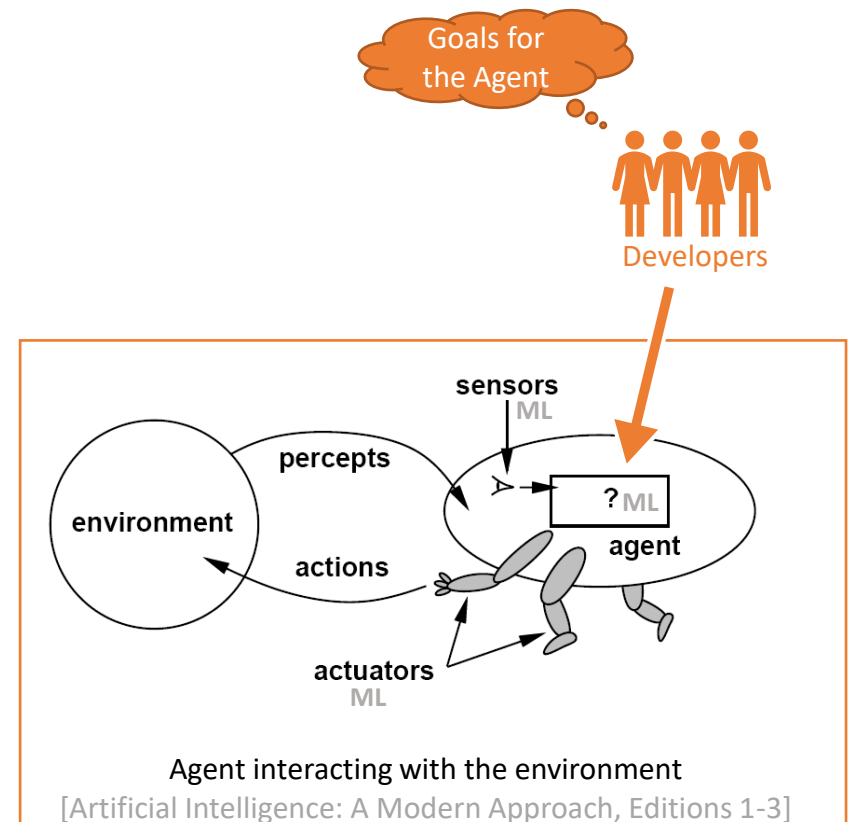
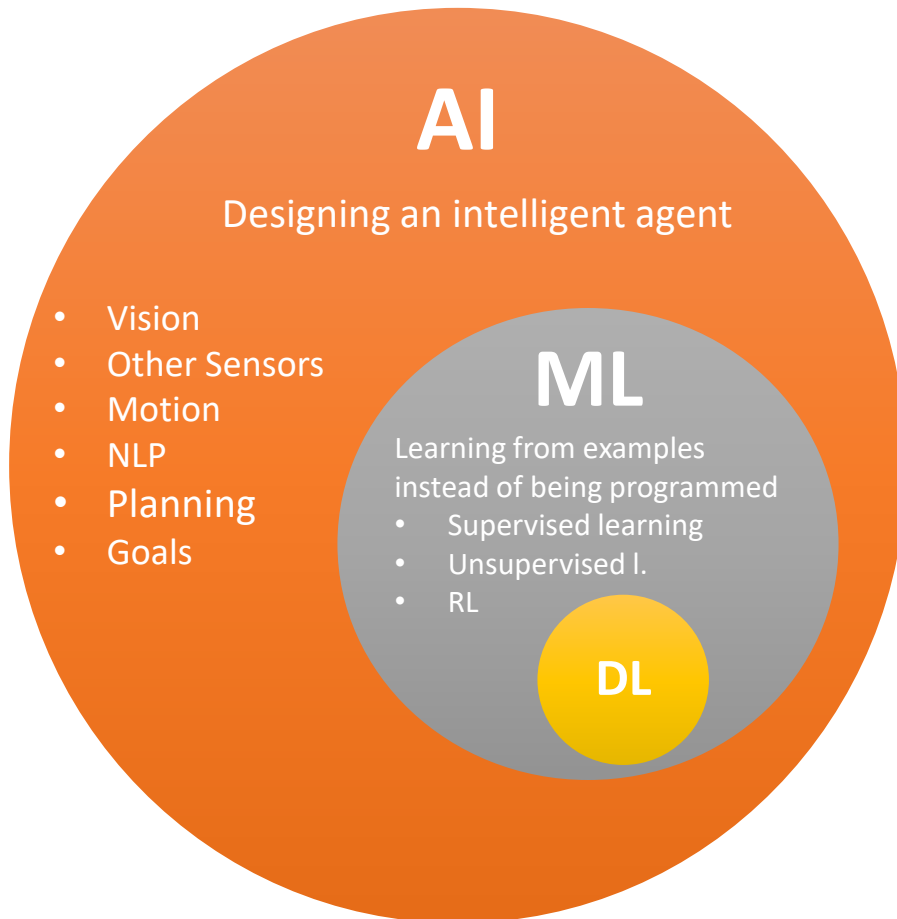
Narrow AI focuses on agents to solve a specific subproblem.

Intelligent agents need to

- Communicate with the environment
- Represent knowledge
- Reason and plan to achieve a **desired outcome**
- Learn



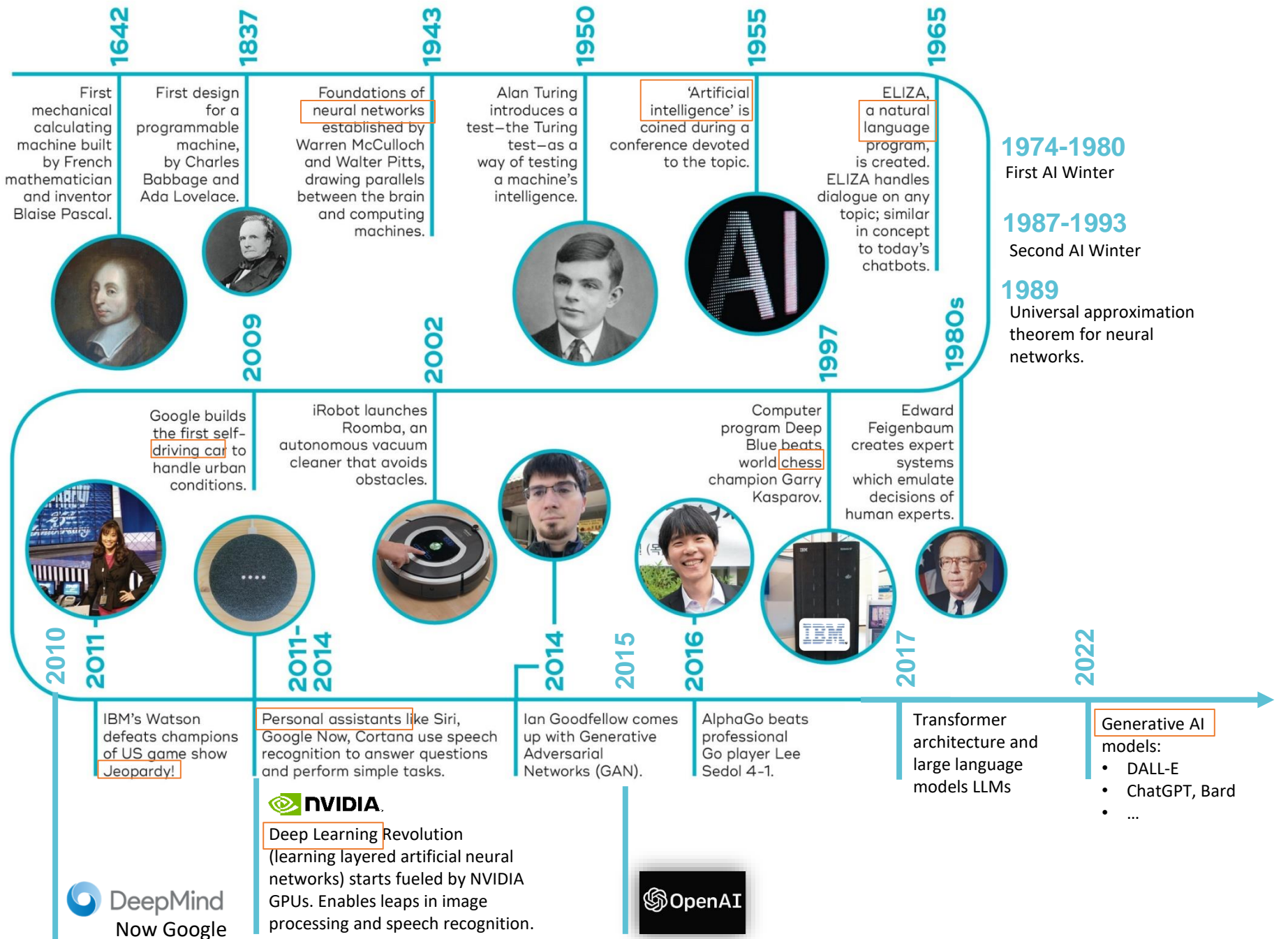
Machine Learning vs. Artificial Intelligence



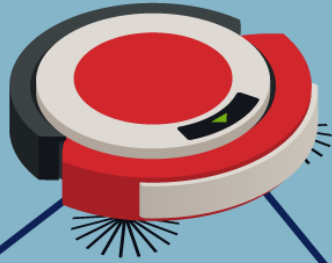


History of AI

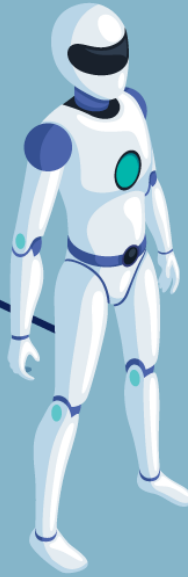
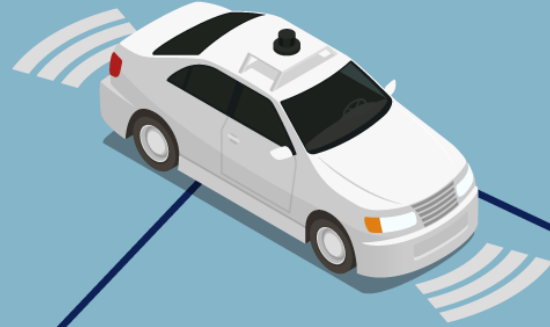




ROOMBA



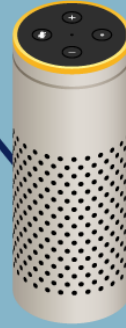
SELF-DRIVING CAR



AI ROBOT



EMAIL SPAM FILTER



SMART SPEAKERS

AI Today

Vision and Image Processing

- **OCR:** read license plates, handwriting recognition (e.g., mail sorting).
- **Face detection:** now standard for smart phone cameras.
- **Visual search**
- **Vehicle safety systems**
- **Image generation**

All these technologies can now operate now at superhuman performance.

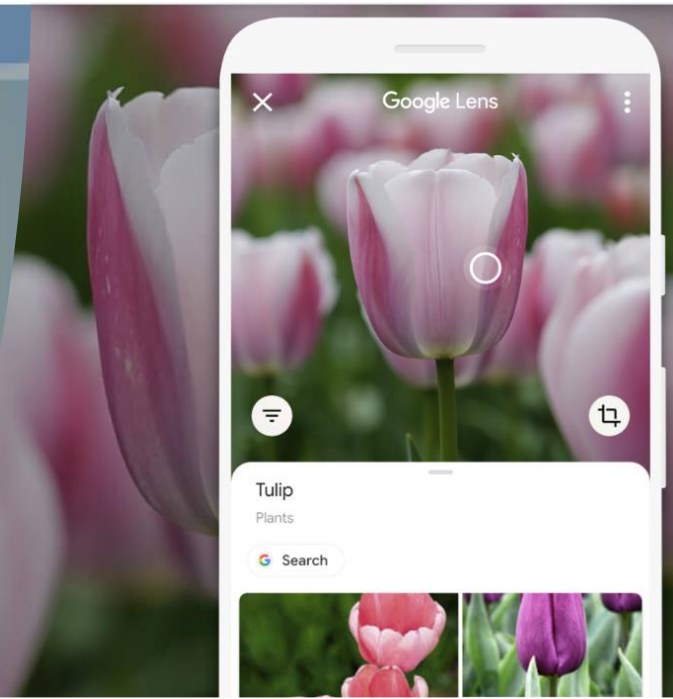


› Vision Applications

Road, Vehicle, Pedestrian Protection and more



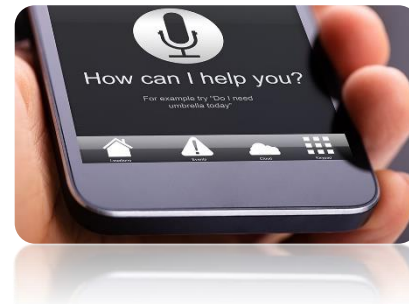
› AWS Advanced Warning



Natural Language Processing

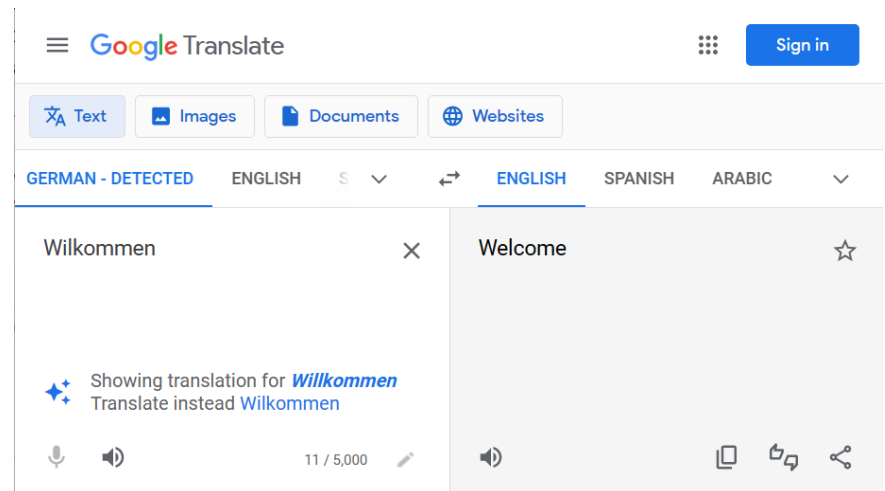


- Text-to-speech
- Speech-to-text to detect voice commands
- Machine translation
- Text generation (Q/A systems, text summarization)



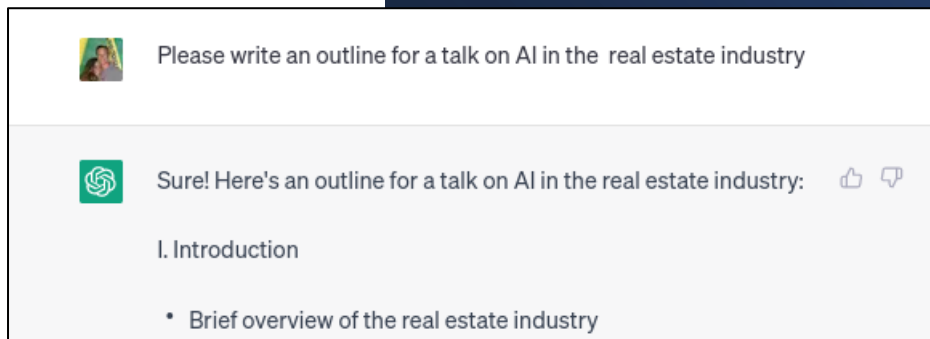
All these technologies can operate now with close to or even superhuman performance.

Humans use language to reason. Does that mean AI that can create good language can reason?



Large Language Models

ChatGPT in a Nutshell



- A language model learns how words follow each other from a large training data set.
- We give it a prompt: **“Please write an outline for a talk on AI in the real estate industry.”**
- And then continues the prompt one word at a time: **“Sure! Here's an outline for a talk on AI in the real estate industry...”**
- The model gets fine-tuned by humans to produce “good” responses. E.g., about ¼ page long, stay on topic, etc.
- The model learns to produce text that sounds right and “it thinks” **the human will like...**
- Where will this lead?
 - We will get natural language assistants for everything.
 - We will get personalized summaries.
 - Writing documents will become automated.
 - For now, it is an assistant and needs someone to check the result is factually correct...
 - Artificial content generation will explode. “Genuine” content may become valued.
 - Who pays more will get access to a more powerful model.
 - The group that controls the models will gain extreme influence.



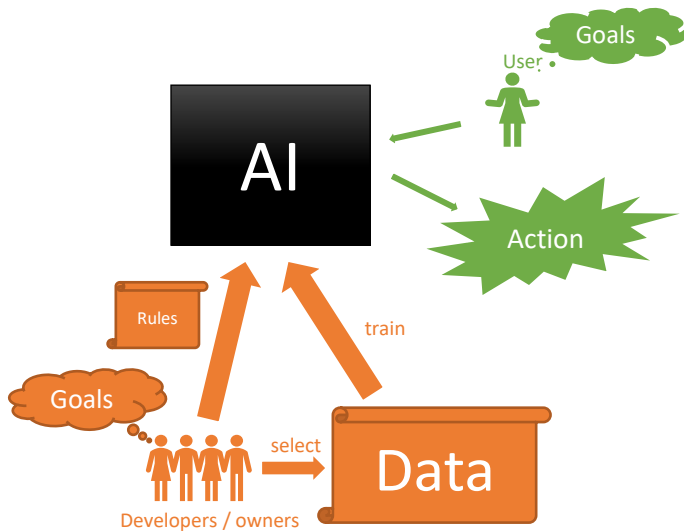
Cost of training GPT-4
\$100 million+

Source: <https://www.wired.com>

AI Safety

“Prevent accidents, misuse, or other harmful consequences of AI.”

- Robustness: Black swan vs. adversarial robustness
- Monitoring AI
- Goal/reward alignment
- Reward hacking
- Instrumental Convergence
- What about liability?

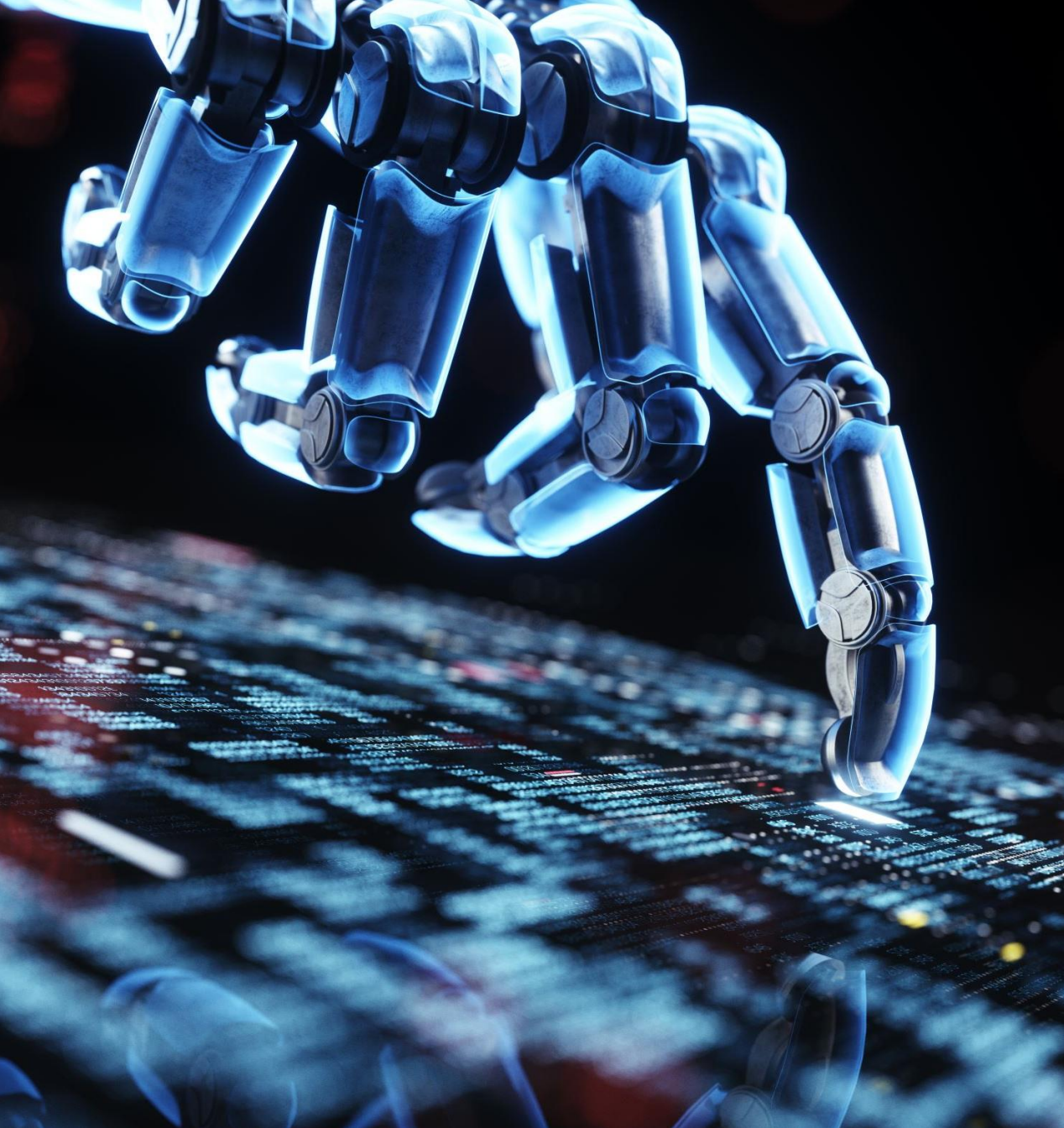


Background

Google has long championed AI. Our research teams are at the forefront of AI development, and we've seen firsthand how AI can enable massive increases in performance and functionality. AI has the potential to deliver great benefits for economies and society — from improving energy efficiency and more accurately detecting disease, to increasing the productivity of businesses of all sizes. Harnessed appropriately, AI can also support fairer, safer and more inclusive and informed decision-making. We are keen to ensure that everyone and every business can benefit from the opportunities that AI creates.

AI will have a significant impact on society for many years to come. That's why we established our AI Principles (including applications we will not pursue)¹ to guide Google teams on the responsible development and use of AI. These are backed by the operational processes and structures necessary to ensure they are not just words but concrete standards that actively impact our research, products and business decisions to ensure trustworthy and effective AI application.

But while self-regulation is vital, it is not enough. Balanced, fact-based guidance from governments, academia and civil society is also needed to establish boundaries, including in the form of regulation. As our CEO Sundar Pichai has noted, AI is too important not to regulate. The challenge is to do so in a way that is proportionately tailored to mitigate risks



Outlook

AI is a technology that is on the verge of significant leaps...

- New technologies always had a **profound impacted** on the way we live and work.
- We can expect unprecedented gains in productivity from better **narrow AI**.
- All technologies have the potential for misuse need to be **regulated**.