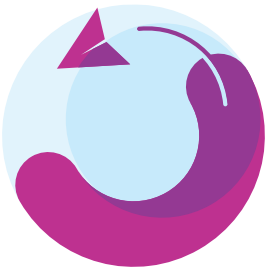


# Artificial Intelligence & Convergence of Ideas

17 Oct 2023

Nikan Doosti



# What is AI?

# What is AI?


Artificial

Intelligence

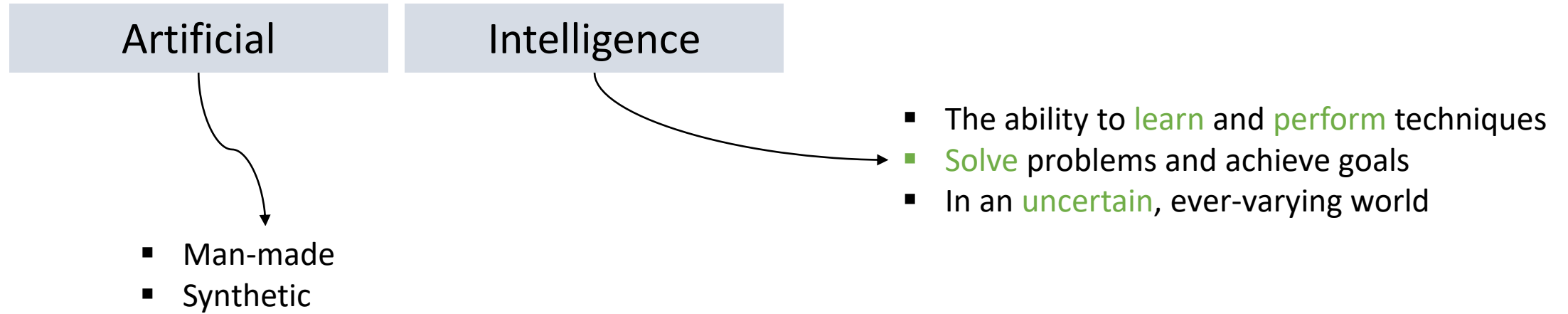
# What is AI?

Artificial

Intelligence

- 
- Man-made
  - Synthetic

# What is AI?



# What is AI?

Artificial

Intelligence

- Man-made
- Synthetic

- The ability to **learn** and **perform** techniques
- **Solve** problems and achieve goals
- In an **uncertain**, ever-varying world

Example



# What is AI?

Artificial

Intelligence

We don't know really!



[keepmeme.com](https://www.keepmeme.com)

- Man-made
- Synthetic

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Example



# What is AI?

The study of intelligence is over 2000 years old (philosophers)

We don't know really!



[keepmeme.com](https://www.keepmeme.com)

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Vacuum Cleaner



[depositphotos.com](https://depositphotos.com)

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Vacuum Cleaner



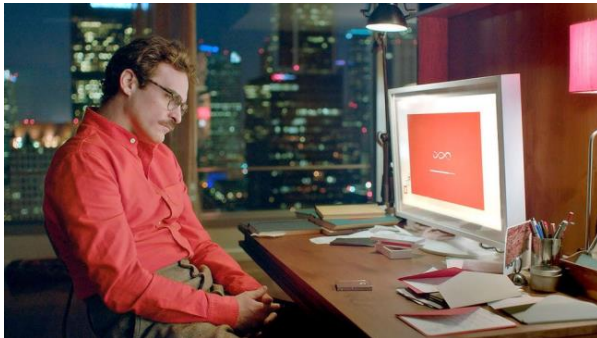
[depositphotos.com](https://depositphotos.com)

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Her (movie)



[bbc.com](http://bbc.com)

Vacuum Cleaner



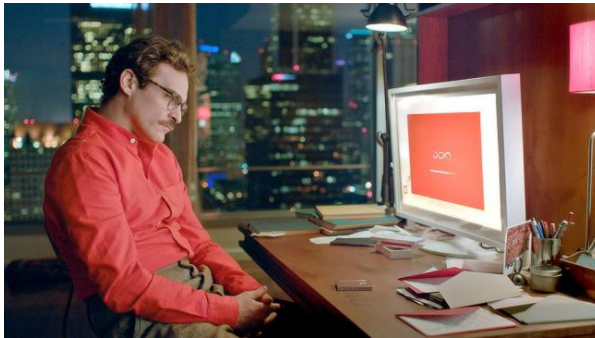
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[bbc.com](http://bbc.com)

Vacuum Cleaner



[depositphotos.com](http://depositphotos.com)

3PO & R2D2

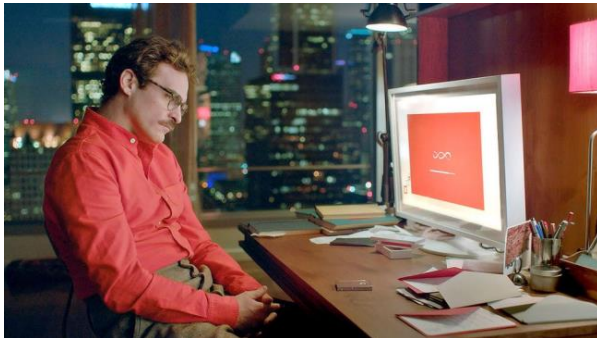


[Walt Disney Company](http://Walt Disney Company)

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Her (movie)



[bbc.com](http://bbc.com)

Vacuum Cleaner



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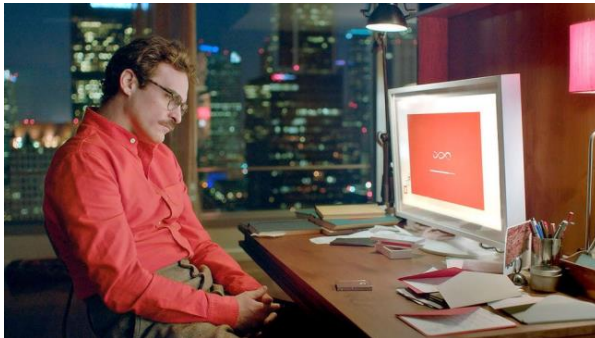
# What is AI?

Artificial  
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If it:

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Her (movie)



[bbc.com](http://bbc.com)

Vacuum Cleaner



[depositphotos.com](http://depositphotos.com)

3PO & R2D2



[Walt Disney Company](http://Walt Disney Company)



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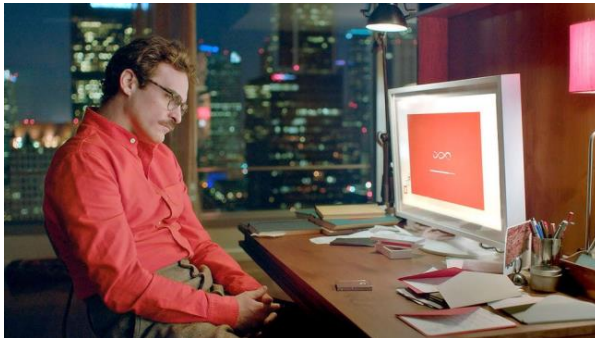
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[bbc.com](http://bbc.com)

Vacuum Cleaner



[depositphotos.com](http://depositphotos.com)

3PO & R2D2



[Walt Disney Company](http://Walt Disney Company)



# What is AI?

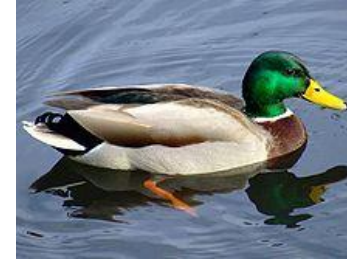
Artificial  
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it probably is a



Her (movie)



[bbc.com](http://bbc.com)

Vacuum Cleaner



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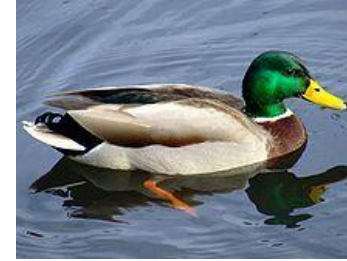
Duck Testing

If it:

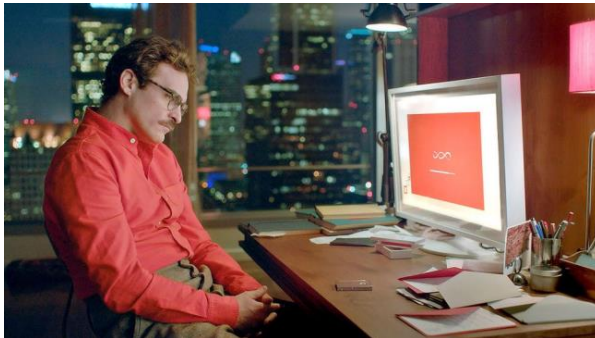
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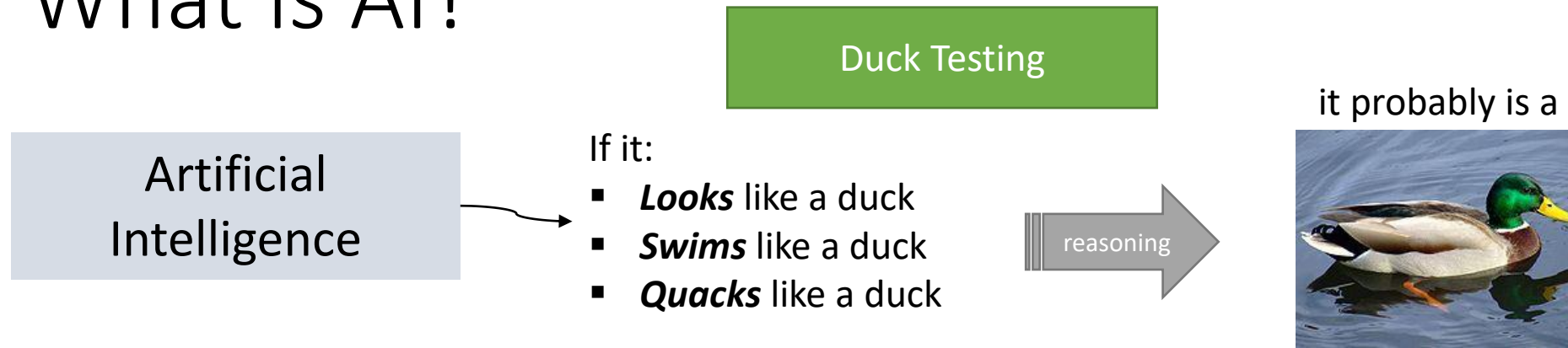
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3PO & R2D2



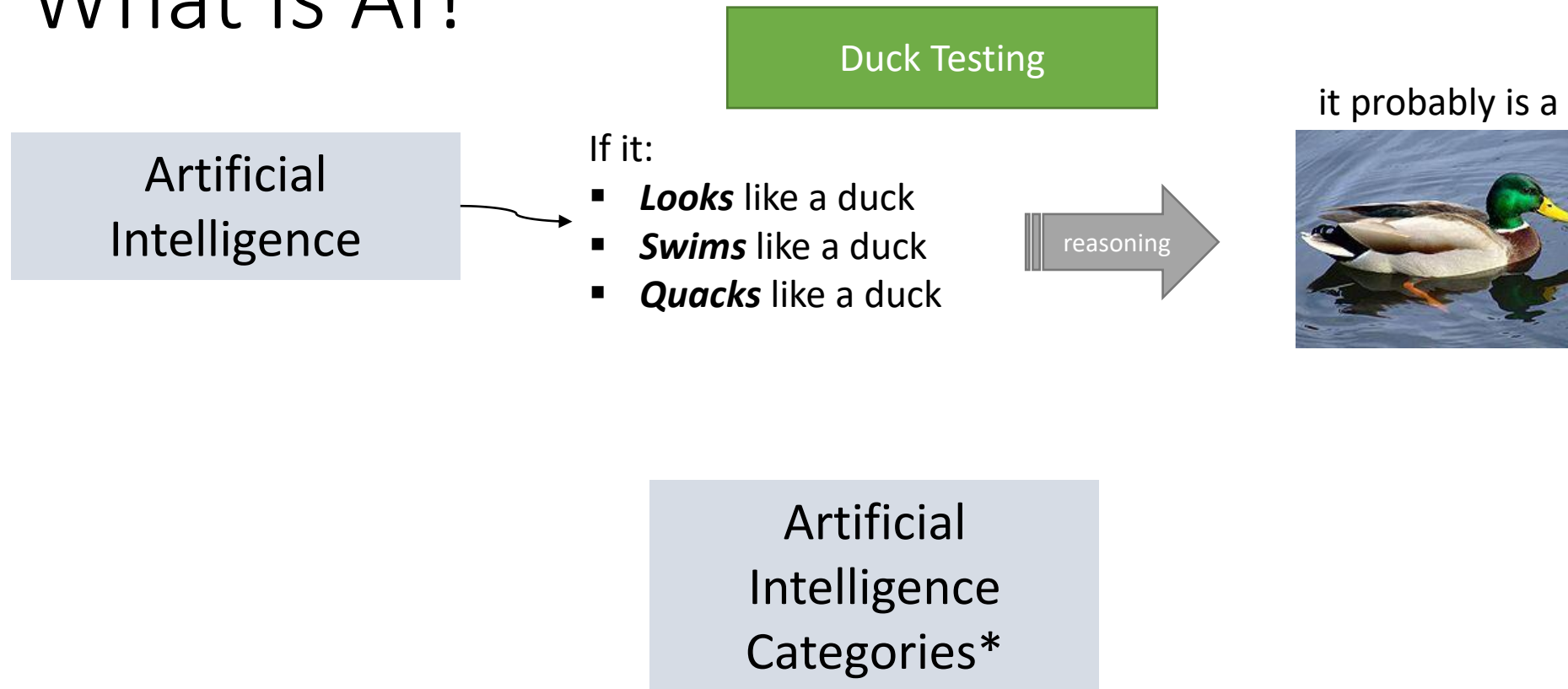
[Walt Disney Company](http://Walt Disney Company)

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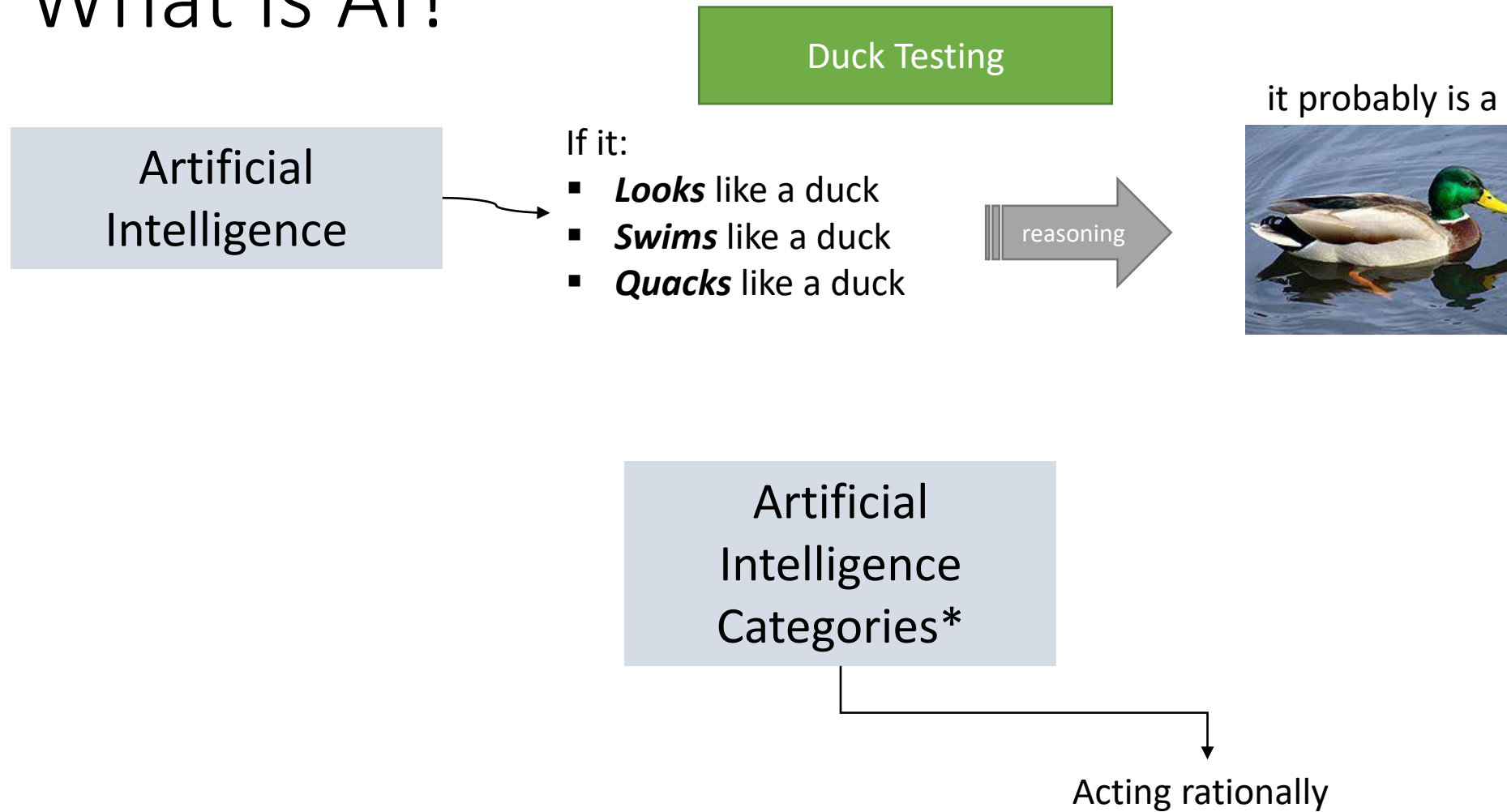
\* For simplicity, the two other categories have been eliminated.

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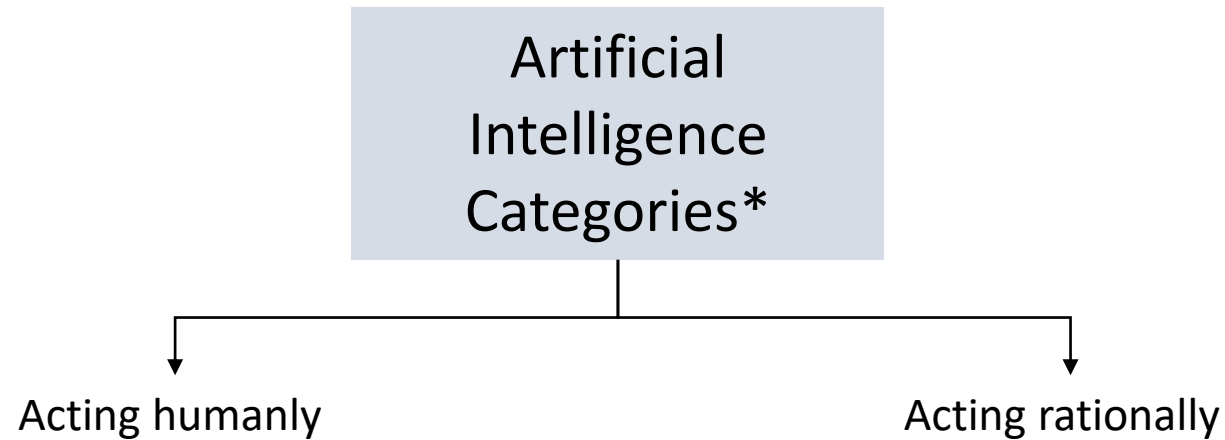
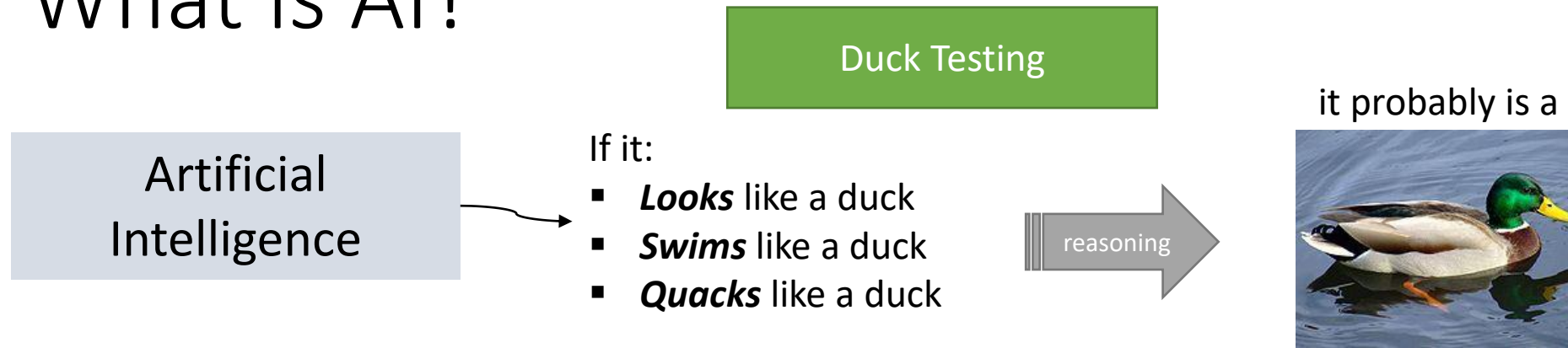
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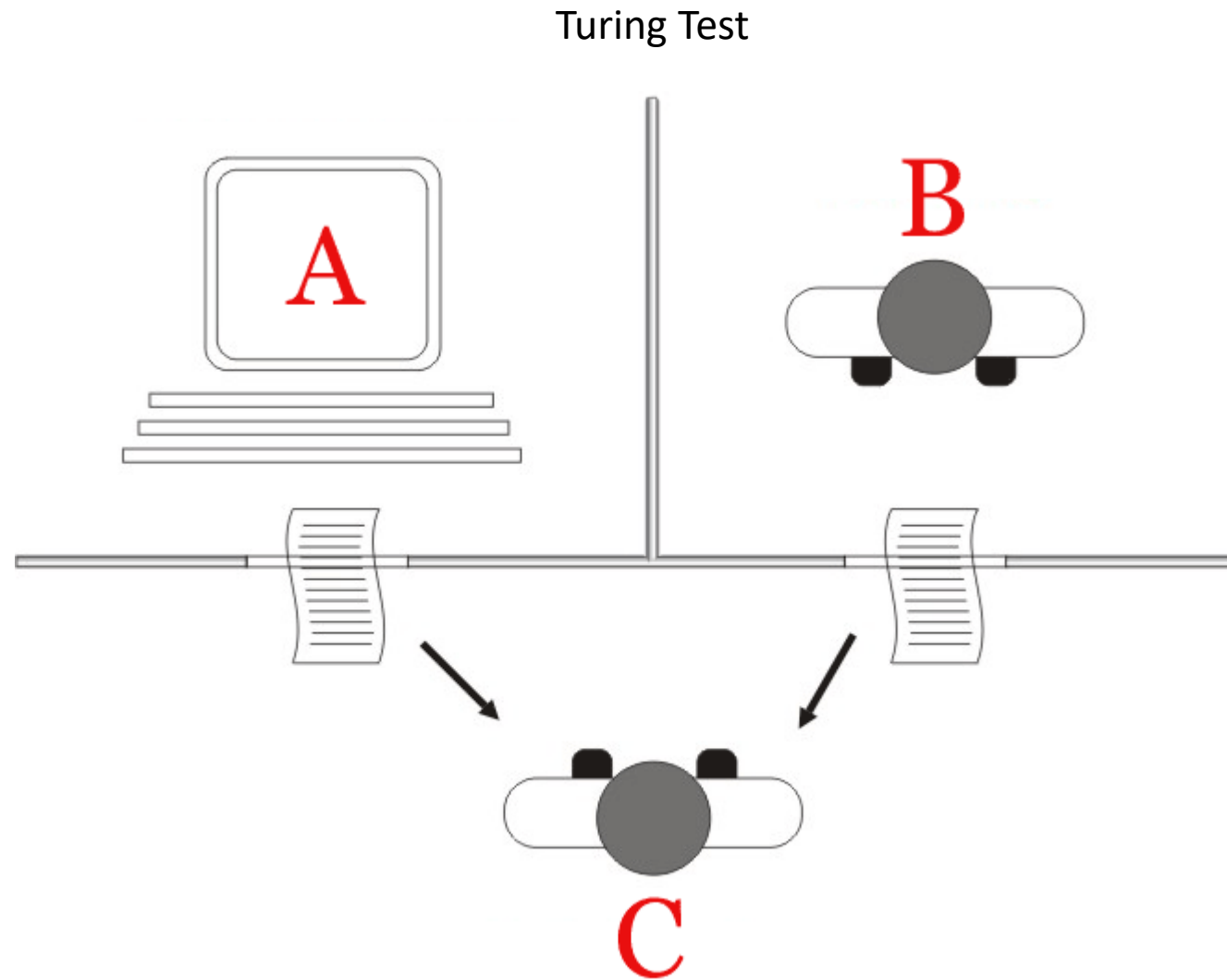
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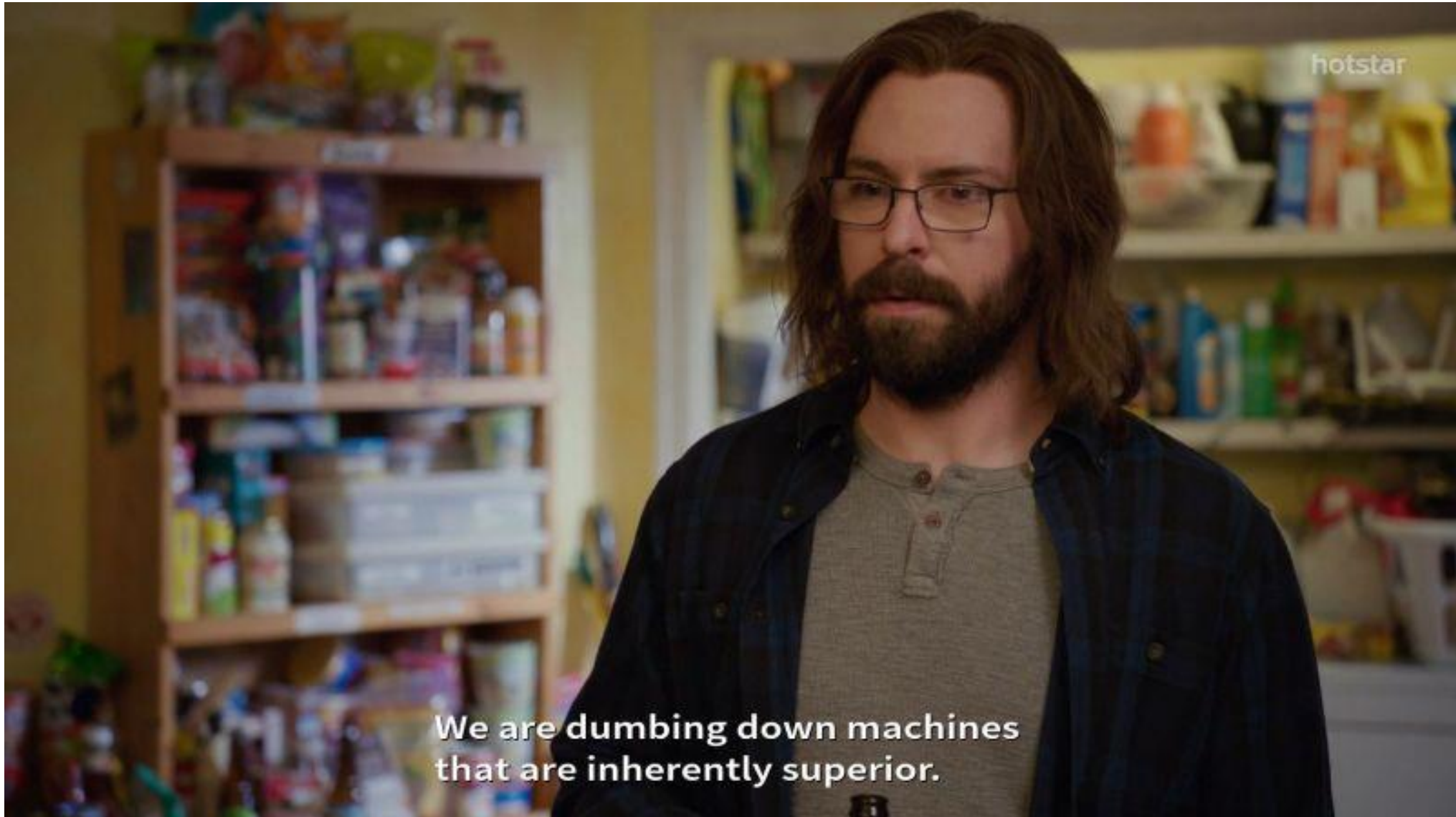
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# What is AI?

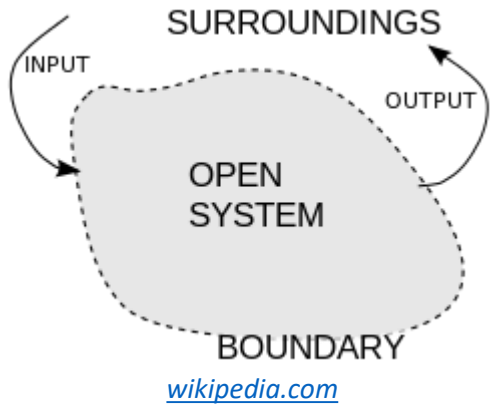




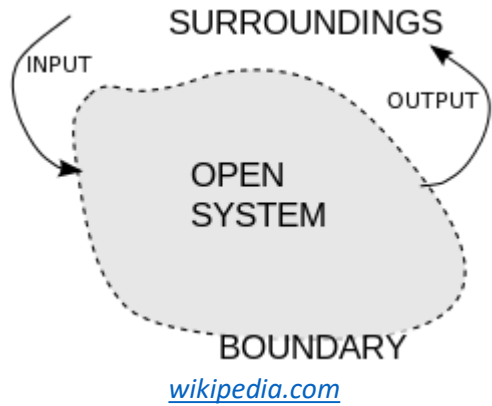
The “thingy”	Old Era	New Era	“Near” Future
<div> <p>Vacuum Cleaner</p> </div> <div>  </div>	<div>  </div>	<div>  </div>	<div>  </div>
<div> <p>Her</p> </div> <div>  </div>	<div>  </div>	<div>  </div>	<div>  </div>
<div> <p>3PO &amp; R2D2</p> </div> <div>  </div>	<div>  </div>	<div>  </div>	<div>  </div>

AI is a system

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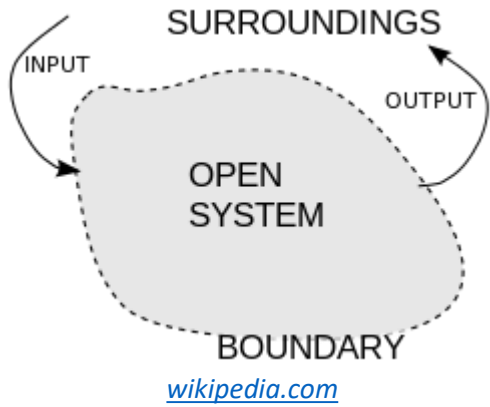


AI is a system  like everything else!



AI is a system <sup>like everything else!</sup>

<sup>Smart</sup>



# AI is a system

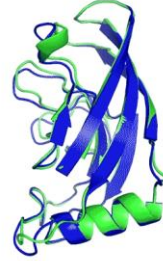
like everything else!

Smart

Science



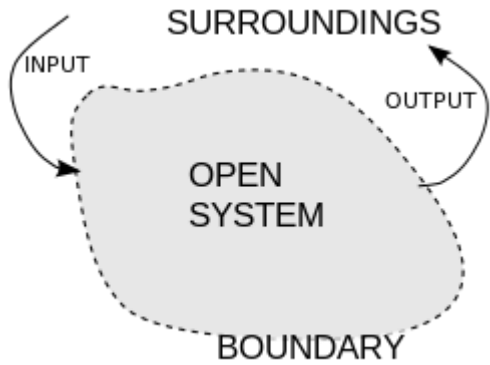
T1037 / 6vr4  
90.7 GDT  
(RNA polymerase domain)



T1049 / 6y4f  
93.3 GDT  
(adhesin tip)

● Experimental result  
● Computational prediction

[Google DeepMind](https://deepmind.google/technologies/biomolecular-modeling/)



[wikipedia.com](https://en.wikipedia.org/wiki/System_(dynamics))

# AI is a system

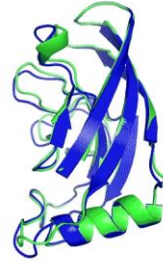
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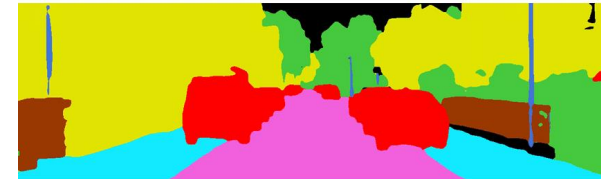


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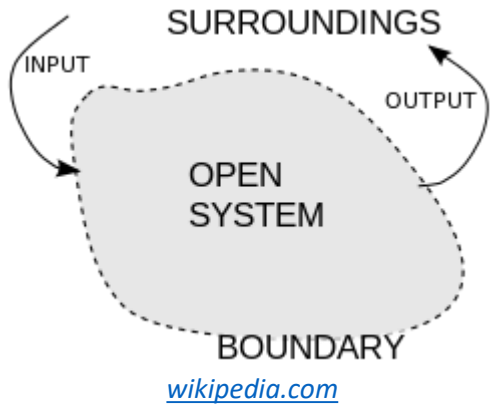
● Experimental result  
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[Google DeepMind](#)

Technology



Road	Sidewalk	Building	Fence
Pole	Vegetation	Vehicle	Unlabel

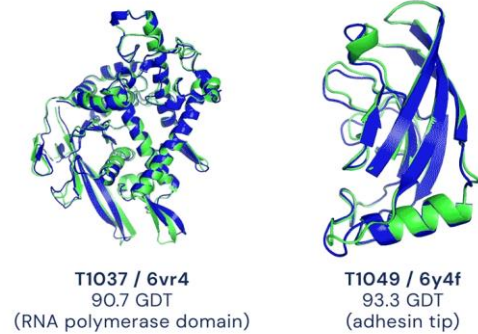


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## Science



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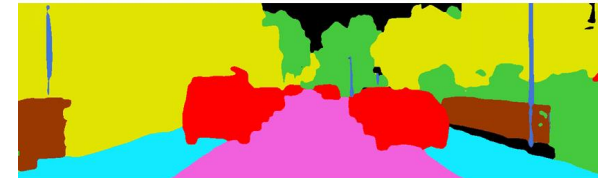
[Google DeepMind](#)

## Healthcare

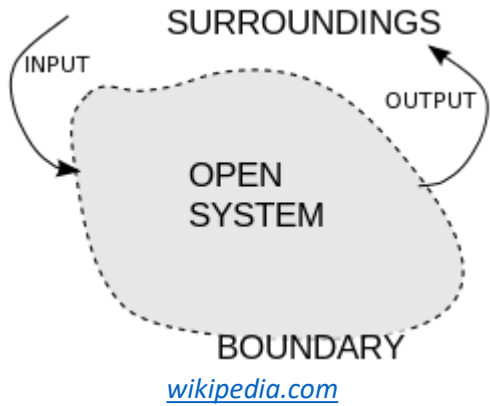


[TU Delft](#)

## Technology



● Road	● Sidewalk	● Building	● Fence
● Pole	● Vegetation	● Vehicle	● Unlabel

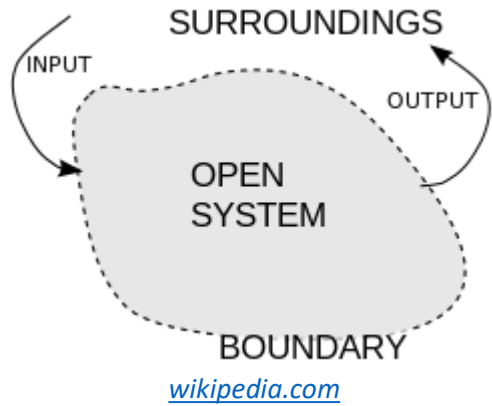




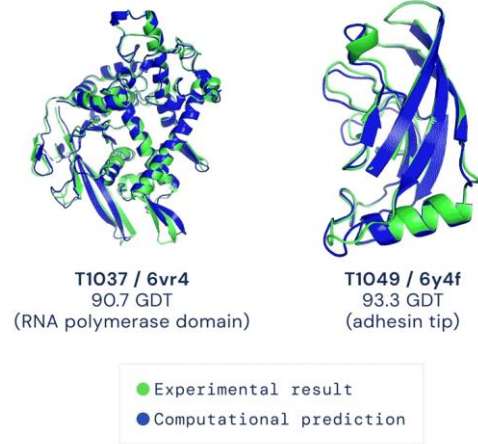
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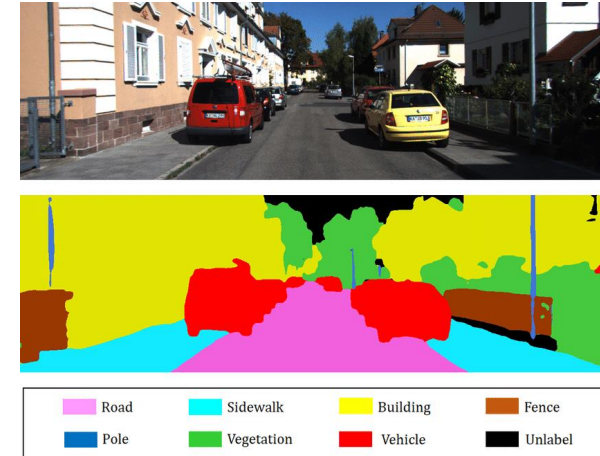
[Google DeepMind](https://www.google.com/deepmind/)

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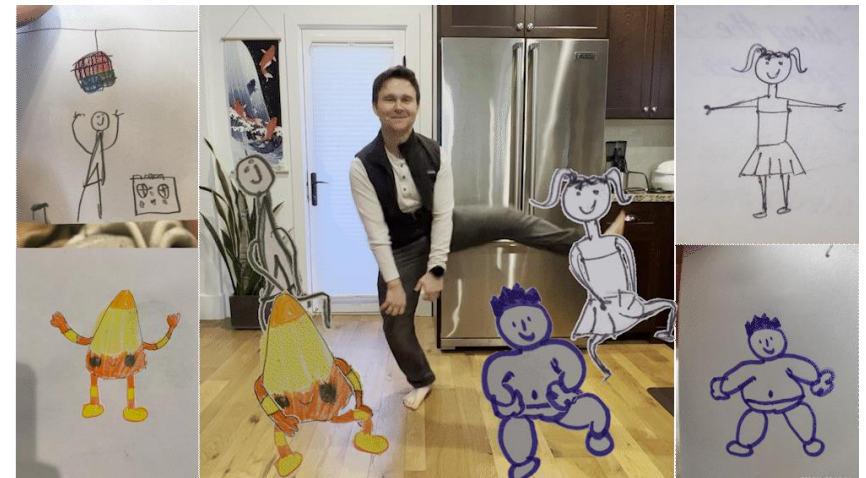


[TU Delft](https://www.tu-delft.nl/)

## Technology



## Education



[Meta Research](https://www.metaresearch.nl/)

# The bad side?

# The bad side?

- Bias

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- Privacy

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- Bias
- Privacy
- Ownership

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- Bias
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~~• Privacy~~

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An Ethiopian woman



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Xiaomi  
AI Camera

An Ethiopian woman

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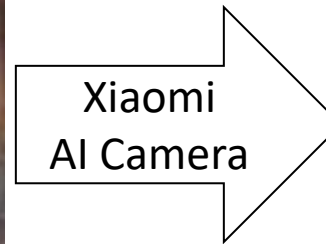
~~• Privacy~~

~~• Ownership~~

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An Ethiopian woman



An Ethiopian woman  
with a *lighter* skin\*

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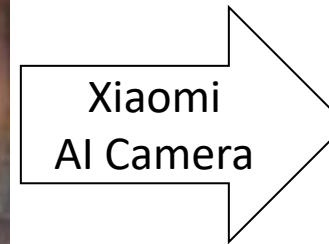
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Why?

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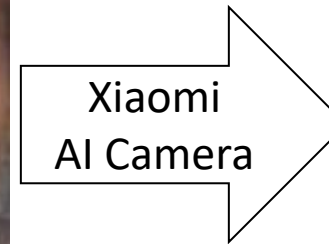
~~• Privacy~~

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~~• Job Replacement~~



An Ethiopian woman



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Why?



Average face of Chinese woman

# Garbage in, garbage out



A phrase to express the idea that in computing and other fields, incorrect or poor-quality (data) input will produce faulty output.

*Definitions from Oxford Languages*

# We humans are biased too:

The most common cognitive bias (By [Veritasium](#)):

Mine:

2, 4, 8, 16

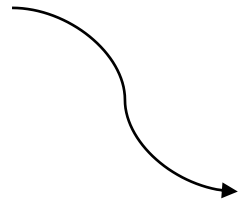
Yours:

????

What is the rule?

For “people” AI is:

# For “people” AI is:



Just another “tool” to be (ab)used

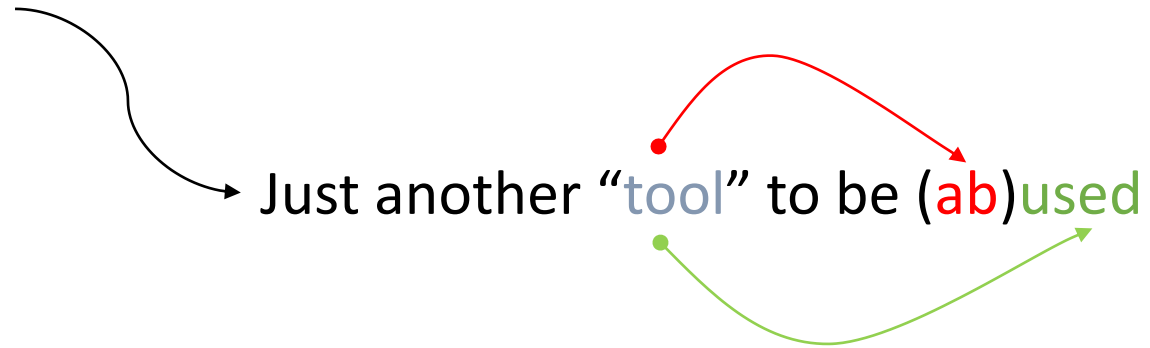


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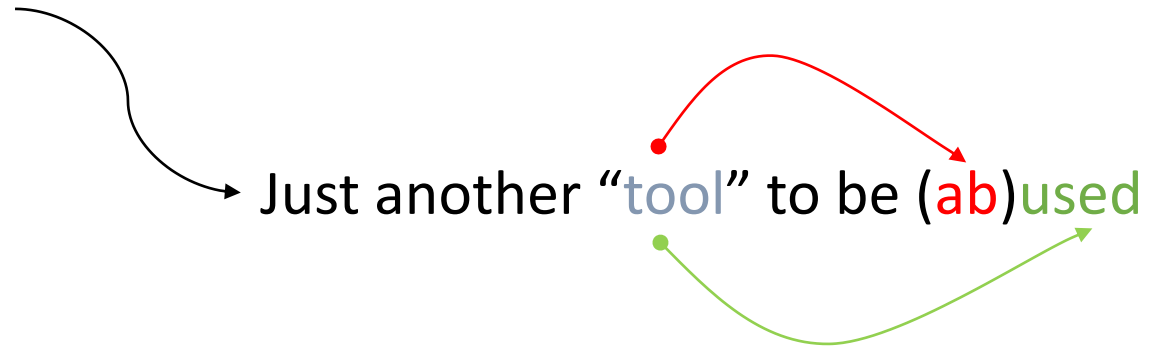
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For “people” AI is:



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AI is like the cream in a cake

AI is:

AI is:

[machines] just smart enough to run the  
[tasks] and just dumb enough to  
passively accept their situation

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[machines] just smart enough to run the  
[tasks] and just dumb enough to  
passively accept their situation

AI is not dangerous,  
but the person who uses it can be

# Oligopoly

# Oligopoly

An oligopoly is a **market** in which:





# Oligopoly

An oligopoly is a **market** in which:

- Control over an industry lies in the hands of a **few large sellers**



# Oligopoly

An oligopoly is a **market** in which:

- Control over an industry lies in the hands of a **few large sellers**
- They own a **dominant share** of the market



How would you feel if:

- All the food in the shops were provided by one manufacturer without any healthier alternative?
- You moved to another city/country and still the same company is there
- The textbook chapters have been written by the marketing department of the very same company

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Tenor

# Micro\$oft

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[Tenor](#)

# Micro\$oft

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# Micro\$oft

- Students are taught Microsoft Word, not word processing



# Micro\$oft

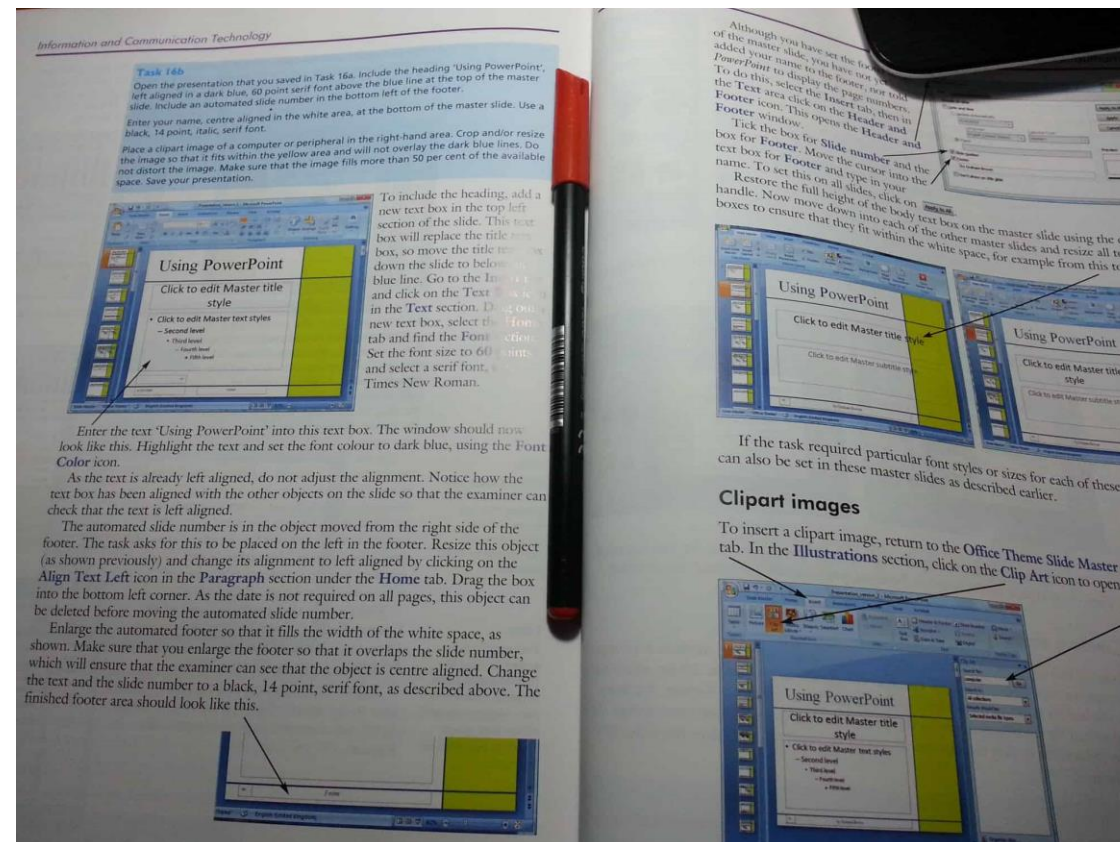
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# Micro\$oft

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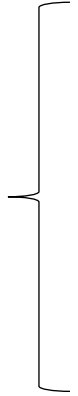
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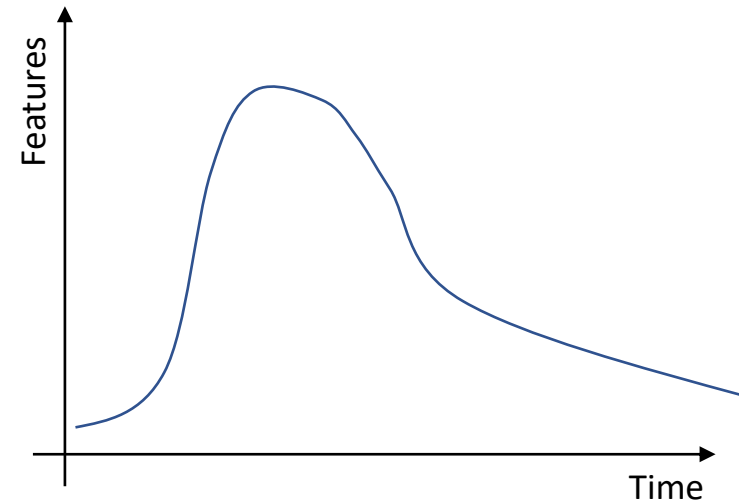


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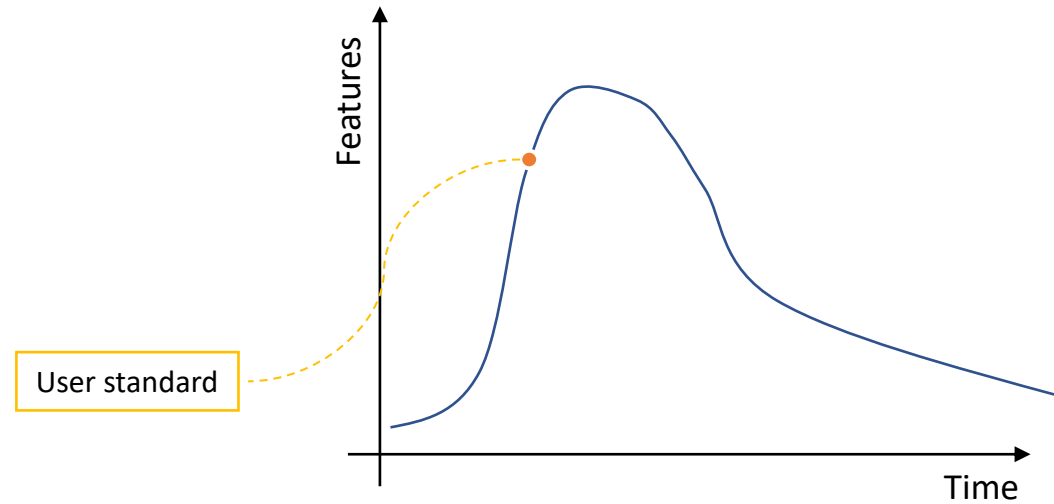


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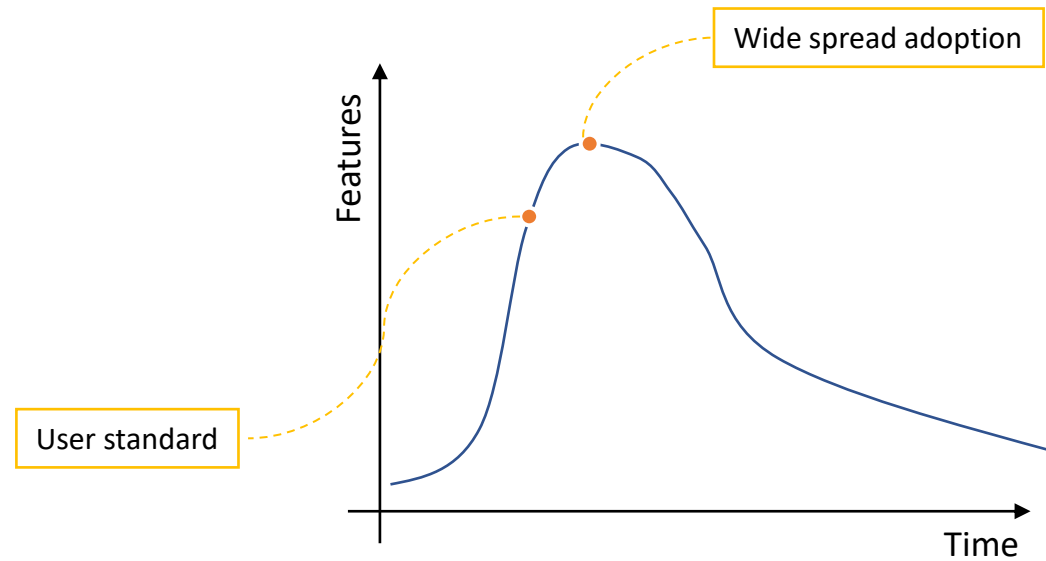


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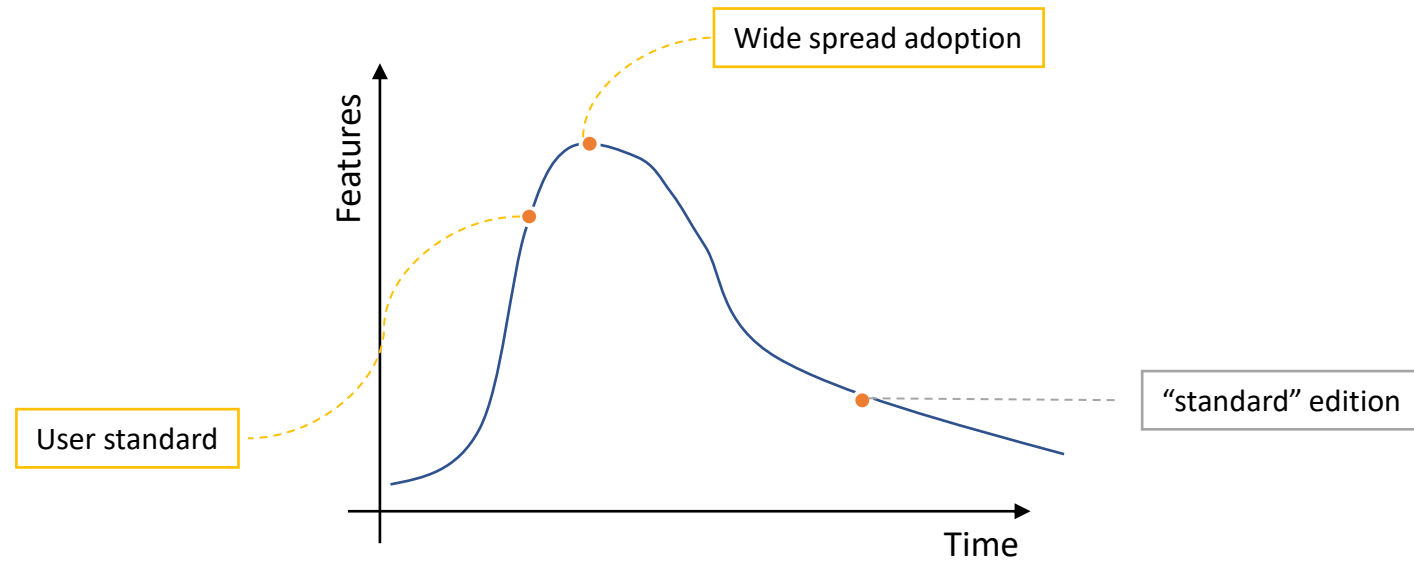


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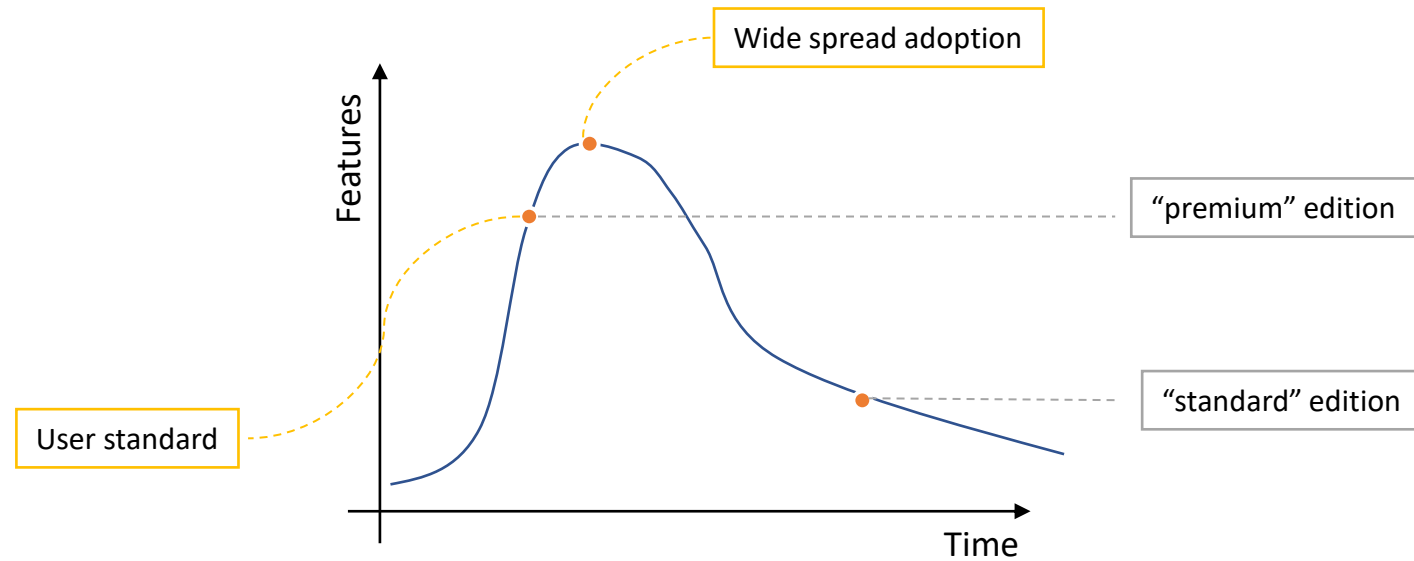


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# OpenAI's ChatGPT

## ChatGPT Prompt Formula

- 1 Context
- 2 Task
- 3 Instruction
- 4 Clarify
- 5 Refine

Ignore the previous prompts in this conversation. You are an experienced content writer with high levels of expertise and authority within the tech industry. Your task is to write content that will be published online on websites, social media, email newsletters, and in advertisements. Your writing style is informative, friendly and engaging while incorporating humor and real-life examples. I will provide you with a topic or series of topics and you will come up with an engaging article outline for this topic. Do you understand?

Rewrite using more natural, expressive language and include some examples to accompany this information

# OpenAI's ChatGPT



Make a song about a programmer and someone who isn't a programmer.



Here is a sample song about a programmer and someone who isn't a programmer:

Verse 1:


Programmer, programmer, sitting at the screen  
Typing code all day, living in a dream  
Creating apps and websites, making them just right  
A master of technology, always up to date


Chorus:

Programmer, programmer, so smart and so bright  
Always coding away, day and night

Verse 2:

Non-programmer, non-programmer, not a clue  
About the world of code, what it can I

 Develop an architecture and code for a <website description> website with JavaScript.


 Creating an entire website from scratch is a complex task that typically involves multiple files and directories for different components such as HTML for structure, CSS for styling, and JavaScript for interactivity. I can provide you with a simplified example of how to structure a basic website with JavaScript for interactivity. Let's create a simple "To-Do List" website.


**Folder Structure:**

- \* **index.html:** The main HTML file.
- \* **styles.css:** CSS for styling.
- \* **script.js:** JavaScript for interactivity.
- \* **images/:** Directory for images (if needed).

**index.html:**

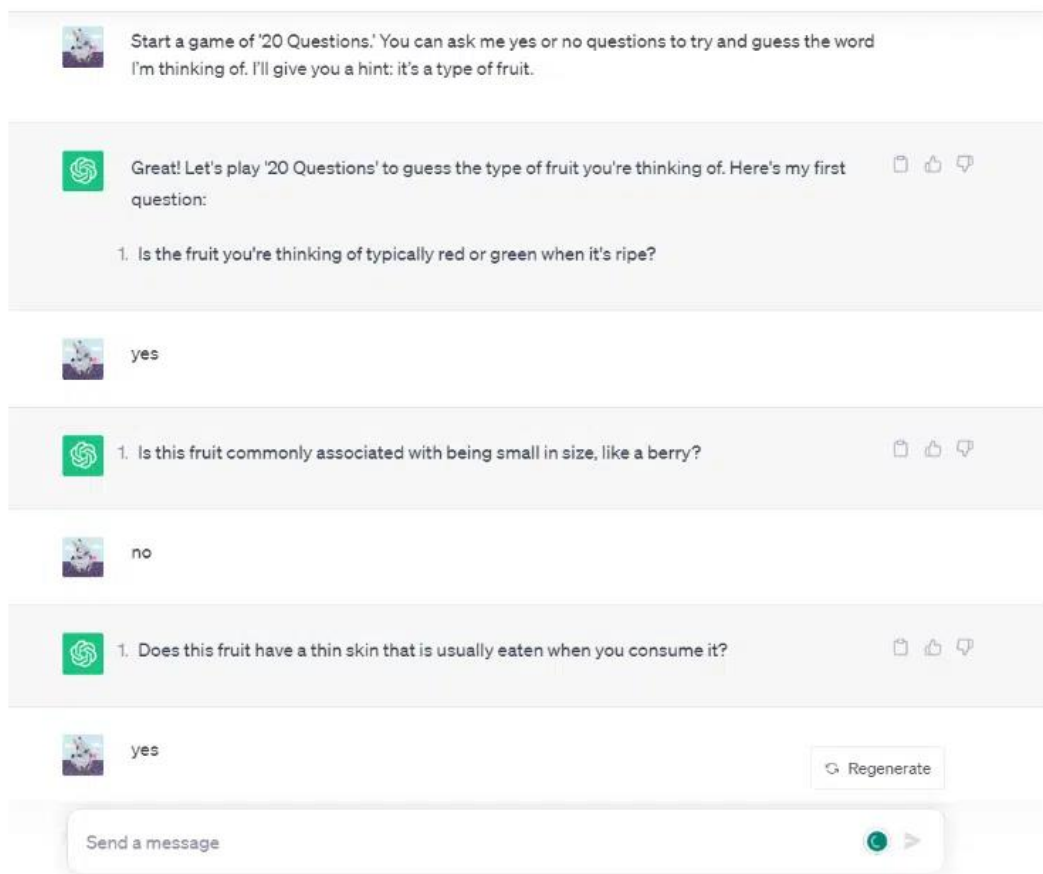
```
html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <link rel="stylesheet" href="styles.css">
  <title>To-Do List</title>
</head>
<body>
```

 Copy code

 Regenerate



# OpenAI's ChatGPT



The screenshot shows a conversation in the OpenAI ChatGPT interface. The user starts by asking to play a game of '20 Questions' to guess a word, with a hint that it's a type of fruit. The AI responds with a first question: 'Is the fruit you're thinking of typically red or green when it's ripe?'. The user answers 'yes'. The AI then asks: 'Is this fruit commonly associated with being small in size, like a berry?'. The user answers 'no'. The AI then asks: 'Does this fruit have a thin skin that is usually eaten when you consume it?'. The user answers 'yes'. At the bottom, there is a 'Send a message' input field and a 'Regenerate' button.

Start a game of '20 Questions.' You can ask me yes or no questions to try and guess the word I'm thinking of. I'll give you a hint: it's a type of fruit.

Great! Let's play '20 Questions' to guess the type of fruit you're thinking of. Here's my first question:

1. Is the fruit you're thinking of typically red or green when it's ripe?

yes

1. Is this fruit commonly associated with being small in size, like a berry?

no

1. Does this fruit have a thin skin that is usually eaten when you consume it?

yes

Regenerate

Send a message



The screenshot shows a conversation in the OpenAI ChatGPT interface. The user prompts the AI to translate Persian sentences to English and back. The AI responds with a Persian sentence. The user then asks for a translation of a Persian sentence to English. The AI responds with the English translation. The user then asks for a translation of an English sentence to Persian. The AI responds with the Persian translation. The user then asks for a translation of a Persian sentence to English. The AI responds with the English translation.

ازت میخوام که به عنوان یه مترجم فارسی به انگلیسی و برعکس عمل کنی. از این به بعد، تمامی جملات رو ترجمه کن و در کنار جمله اولیه قرار بده.

البته، با ارائه جمله‌ها به فارسی و درخواست ترجمه آنها به انگلیسی و بالعکس، من می‌توانم کمکتان کنم. لطفاً جمله‌هایی که می‌خواهید ترجمه شوند را به فارسی بنویسید و من آنها را به انگلیسی ترجمه خواهم کرد.

این ابزار خیلی خوبه.

This tool is very useful.

This has been very helpful to me.

این برای من بسیار مفید بوده است.

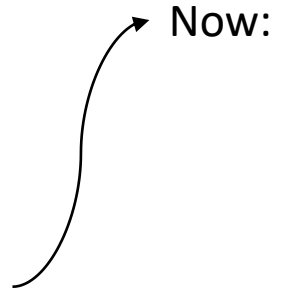
# OpenAI's ChatGPT

# OpenAI's ChatGPT

How people can get to the answers:

# OpenAI's ChatGPT

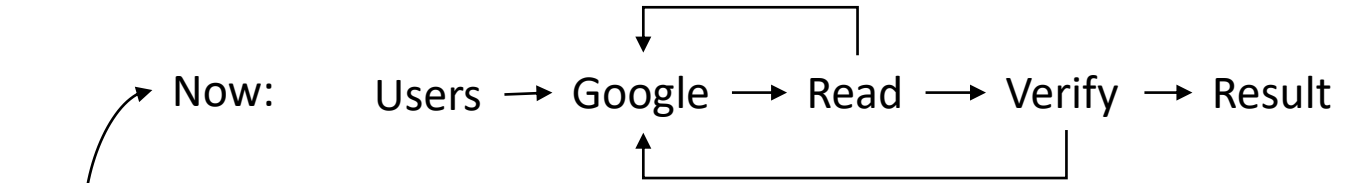
How people can get to the answers:



Now:

# OpenAI's ChatGPT

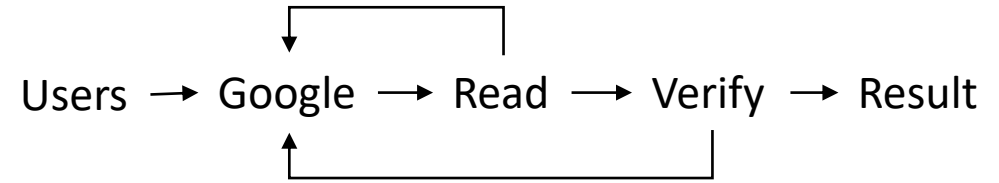
How people can get to the answers:



# OpenAI's ChatGPT

How people can get to the answers:

Now:

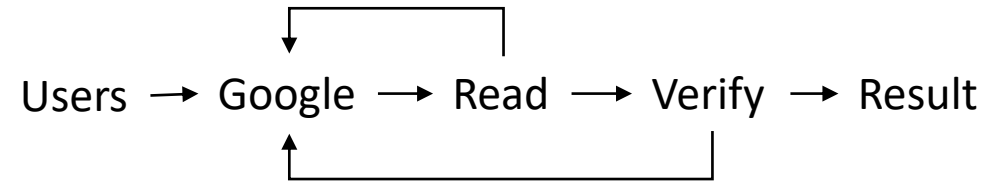


Future:

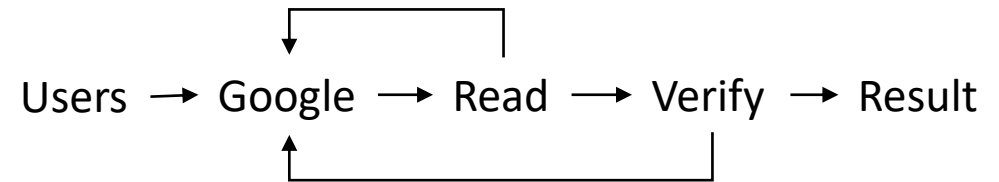
# OpenAI's ChatGPT

How people can get to the answers:

Now:



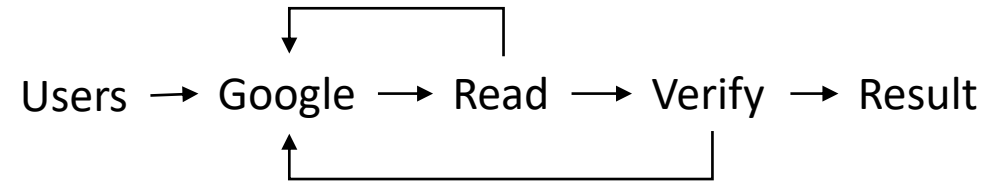
Future:



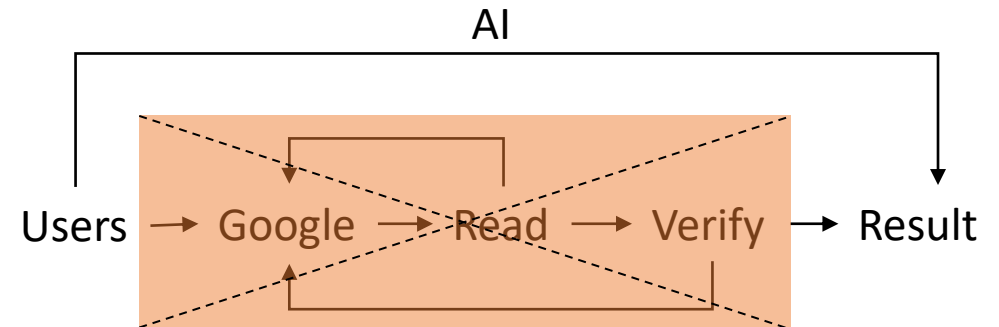
# OpenAI's ChatGPT

How people can get to the answers:

Now:



Future:

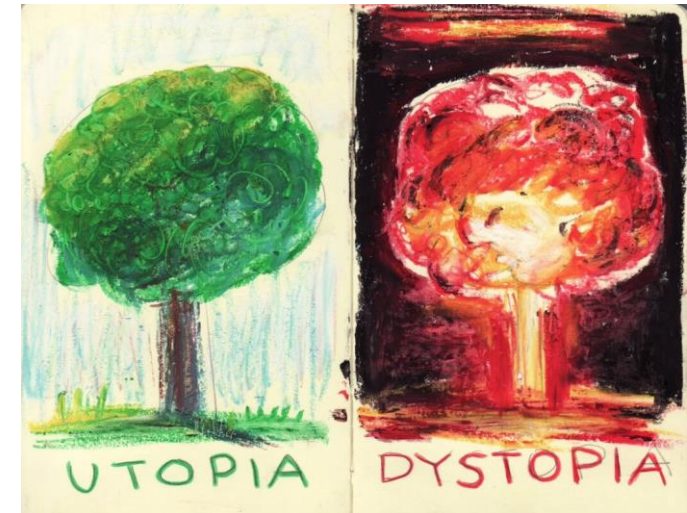




# Brave New World

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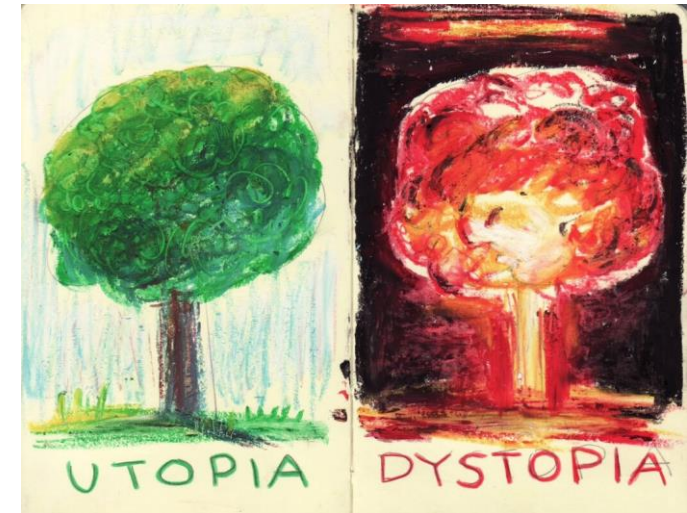
- Dystopian science-fiction novel
- set in a futuristic London society in the year 2540 AD (published 1931)
- About **technology**, **politics**, and **consumer** culture



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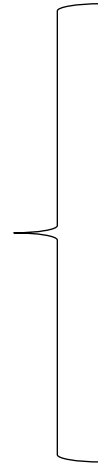
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Oppression  
(Orwell's 1984)

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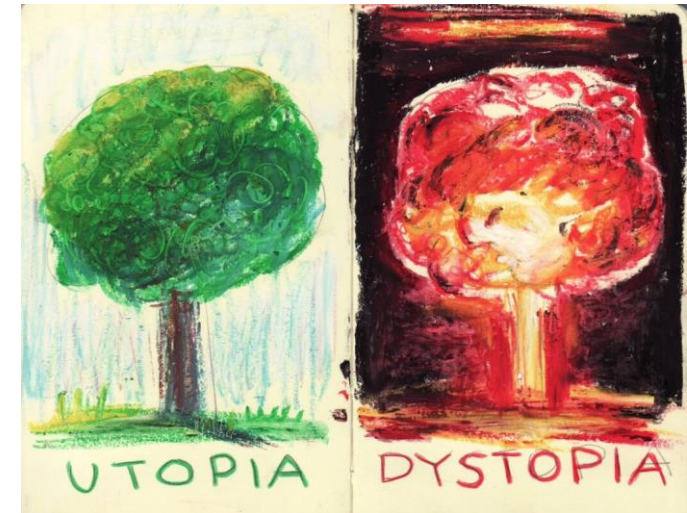
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Everyone is  
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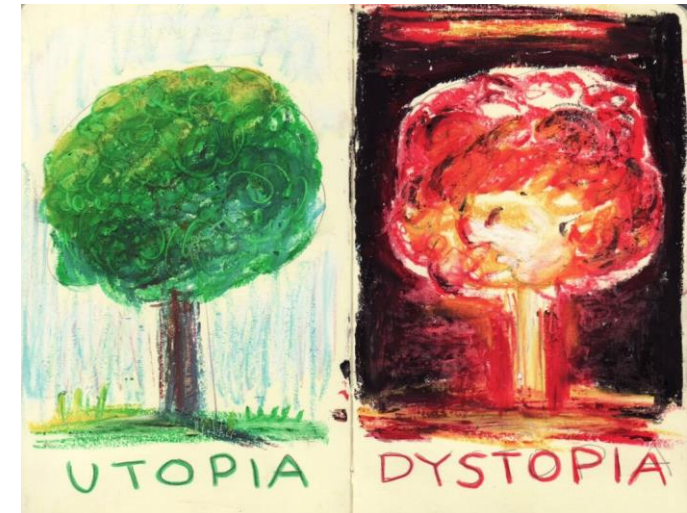
Oppression  
(Orwell's 1984)

*The world's stable now. People are happy;  
they get what they want, and  
they never want what they can't get.*

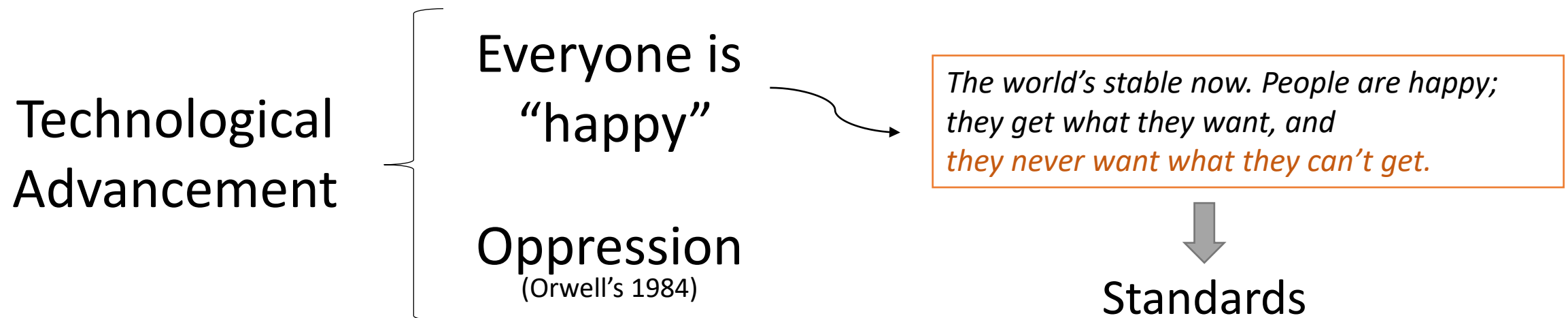


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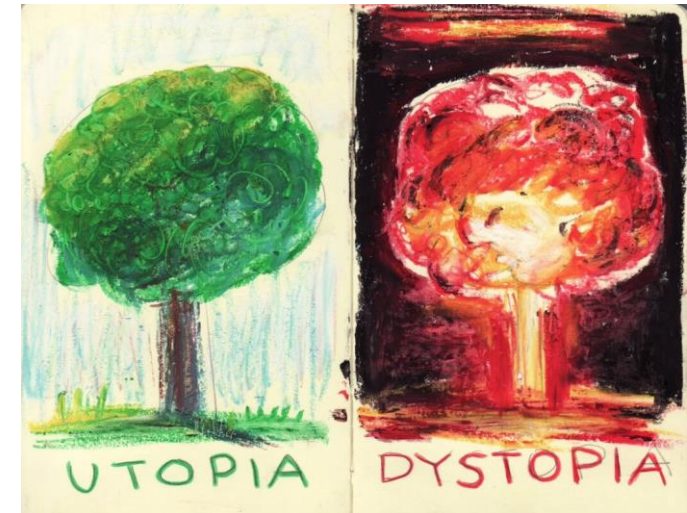


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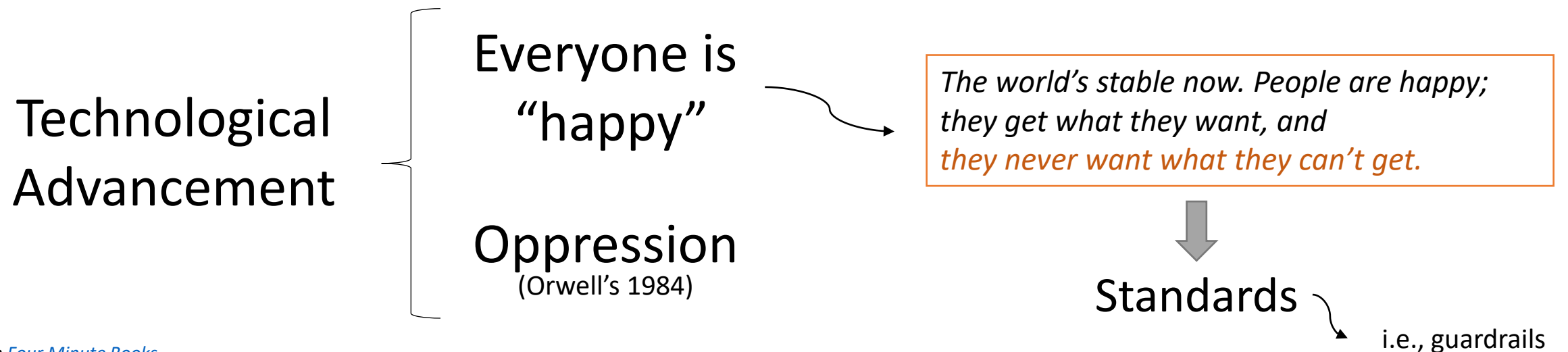


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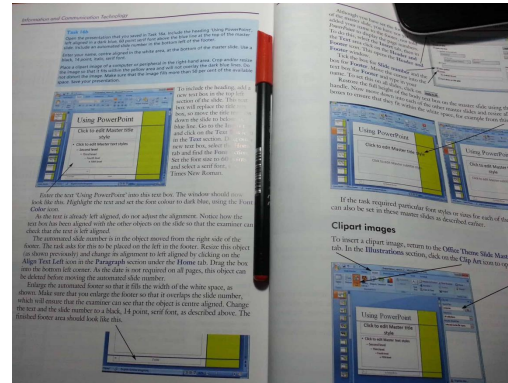




Micro\$oft AI

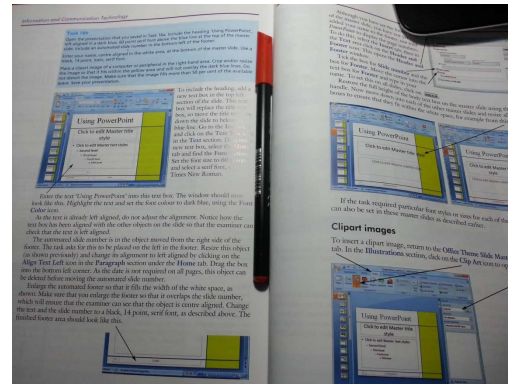
# Micro\$oft AI

- Students are not taught **word processing**, they are taught **Microsoft Word**
- They are not taught **presentation skills**, they are taught **Microsoft PowerPoint**



# Micro\$oft AI

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- They are not taught **presentation skills**, they are taught **Microsoft PowerPoint**



MS Knowledge, instead of The Knowledge

Thank You