

FERRAMENTAS ASSISTIDAS POR INTELIGÊNCIA ARTIFICIAL

Desafios e Oportunidades para a Aprendizagem

Marco Neves, 24 Fevereiro/23

 [FORMA-TE.COM](https://forma-te.com)

The image features a light gray background with several colorful circles of varying sizes in the corners. In the top-left corner, there are circles in shades of pink, orange, and blue. In the top-right corner, there are circles in shades of pink, orange, and blue. In the bottom-right corner, there are circles in shades of pink, orange, and blue. The word "INTELIGÊNCIA?" is centered in a bold, black, sans-serif font.

INTELIGÊNCIA?

Inteligência?

1912

Stern "Um **quociente de inteligência (QI)** é uma pontuação total derivada de um conjunto de testes ou sub-testes padronizados concebidos para avaliar inteligência humana." (**inteligência única**)

1983

Gardner "Uma **inteligência** é a capacidade de resolver problemas, ou de criar produtos, que são valorizados dentro de um ou mais cenários culturais" (**inteligências múltiplas**)

2012

Legg and Hutter "A inteligência mede a **capacidade de um agente** de atingir objetivos numa vasta gama de ambientes." (**inteligência ambiente**)

Inteligência

“Inteligência é um fluxo dinâmico de se ser capaz de perceber e ajustar processos que falharam num determinado ambiente.”

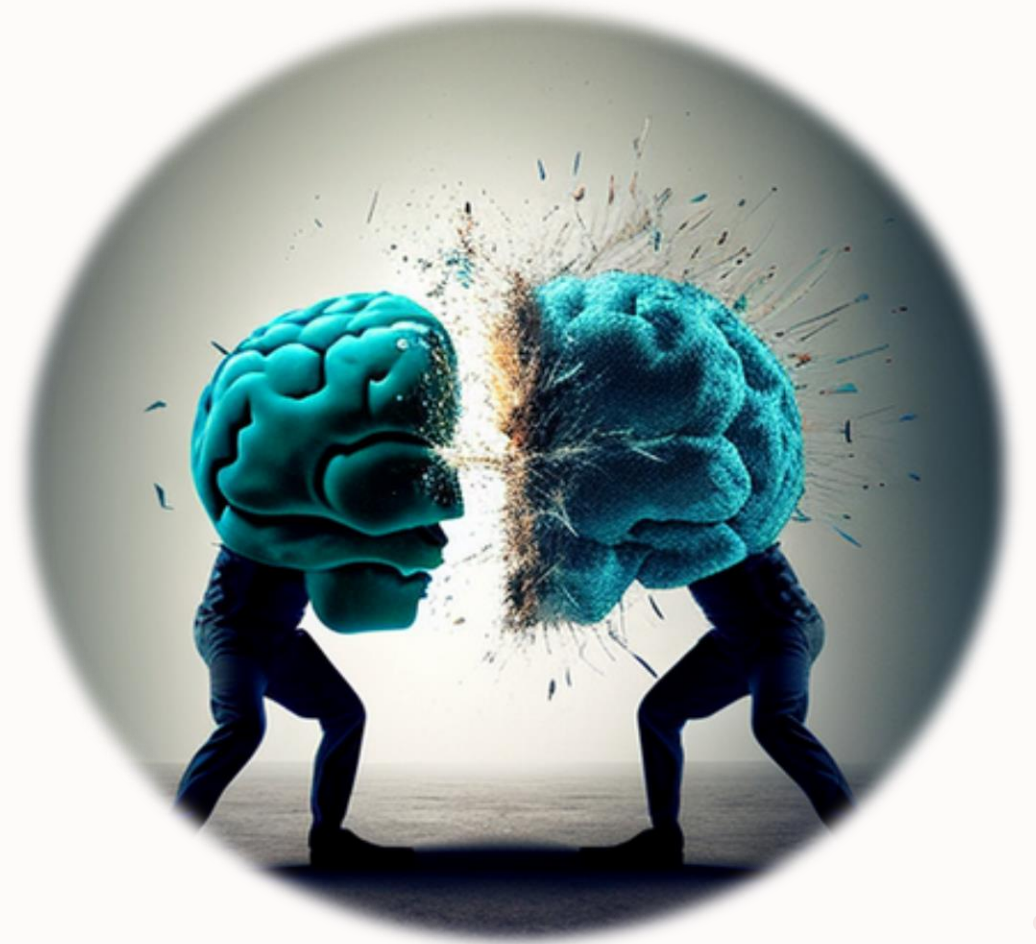
A Collection of Definitions of Intelligence

[Shane Legg](#), [Marcus Hutter](#)

<https://arxiv.org/abs/0706.3639>



Cornell University



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APRENDIZAGEM

uma desconstrução

APRENDIZAGEM

Informação
(professor)

Captação e
Processamento
(aluno)

Conhecimento
(processo)

Inteligência
(humana)

INTERNET

Informação
(professor)

Captação e
Processamento
(aluno)

Conhecimento
(processo)

Inteligência
(**humana**)

The diagram consists of a large light blue speech bubble pointing to the right. Inside this bubble, on the left, is a blue rounded rectangle labeled 'INTERNET'. To its right is a larger blue rounded rectangle labeled 'INTELIGÊNCIA ARTIFICIAL (Large Language Models - LLM)'. Below the 'INTERNET' box is an orange rounded rectangle labeled 'Informação (professor)'. Below the 'INTELIGÊNCIA ARTIFICIAL' box are two orange rounded rectangles: 'Captação e Processamento (aluno)' on the left and 'Conhecimento (processo)' on the right. To the right of the 'INTELIGÊNCIA ARTIFICIAL' box, outside the main bubble, is a red rounded rectangle labeled 'Inteligência (humana)'. The background is white with colorful circles in the corners.

INTERNET

INTELIGÊNCIA ARTIFICIAL
(Large Language Models - LLM)

Informação
(professor)

Captação e
Processamento
(aluno)

Conhecimento
(processo)

Inteligência
(**humana**)

INTERNET

Informação
(professor)

INTELIGÊNCIA ARTIFICIAL
(Large Language Models - LLM)

Captação e
Processamento
(aluno)

Conhecimento
(processo)

Atingir
objetivos
-
Inteligência?

Inteligência
(**humana?**)

AI as Agency Without Intelligence: On ChatGPT, Large
Language Models, and Other Generative Models

Philosophy and Technology, 2023

12 Pages • Posted: 16 Feb 2023

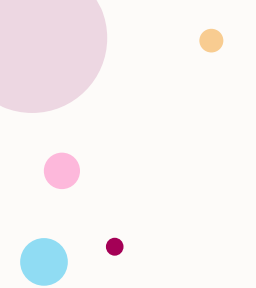
Luciano Floridi

University of Oxford - Oxford Internet Institute; University of Bologna- Department of Legal Studies

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4358789

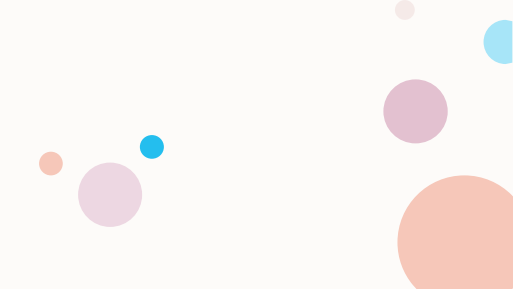
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INTELIGÊNCIA ARTIFICIAL




1955, John McCarthy – Every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it.

2017, Andrew Moore – Artificial intelligence is the science and engineering of making computers behave in ways that, until recently, we thought required human intelligence.



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O que é **artificial** é
improvável que seja
inteligente e o que é
inteligente não será ser
artificial

The slide features a white background with decorative elements in the corners. The top-left corner has a cluster of circles in shades of pink, orange, and blue. The top-right corner has a pink circle and a small orange dot. The bottom-right corner has a large orange circle, a pink circle, and a small blue dot. The main text is centered and reads:

“**Our intelligence** is what makes us **human**, and AI is *(just)* an extension of that quality.”

Yann LeCun

Turing test invented

Dartmouth

1950

1956

First AI winter

1973

1980

Boom times

Second AI winter

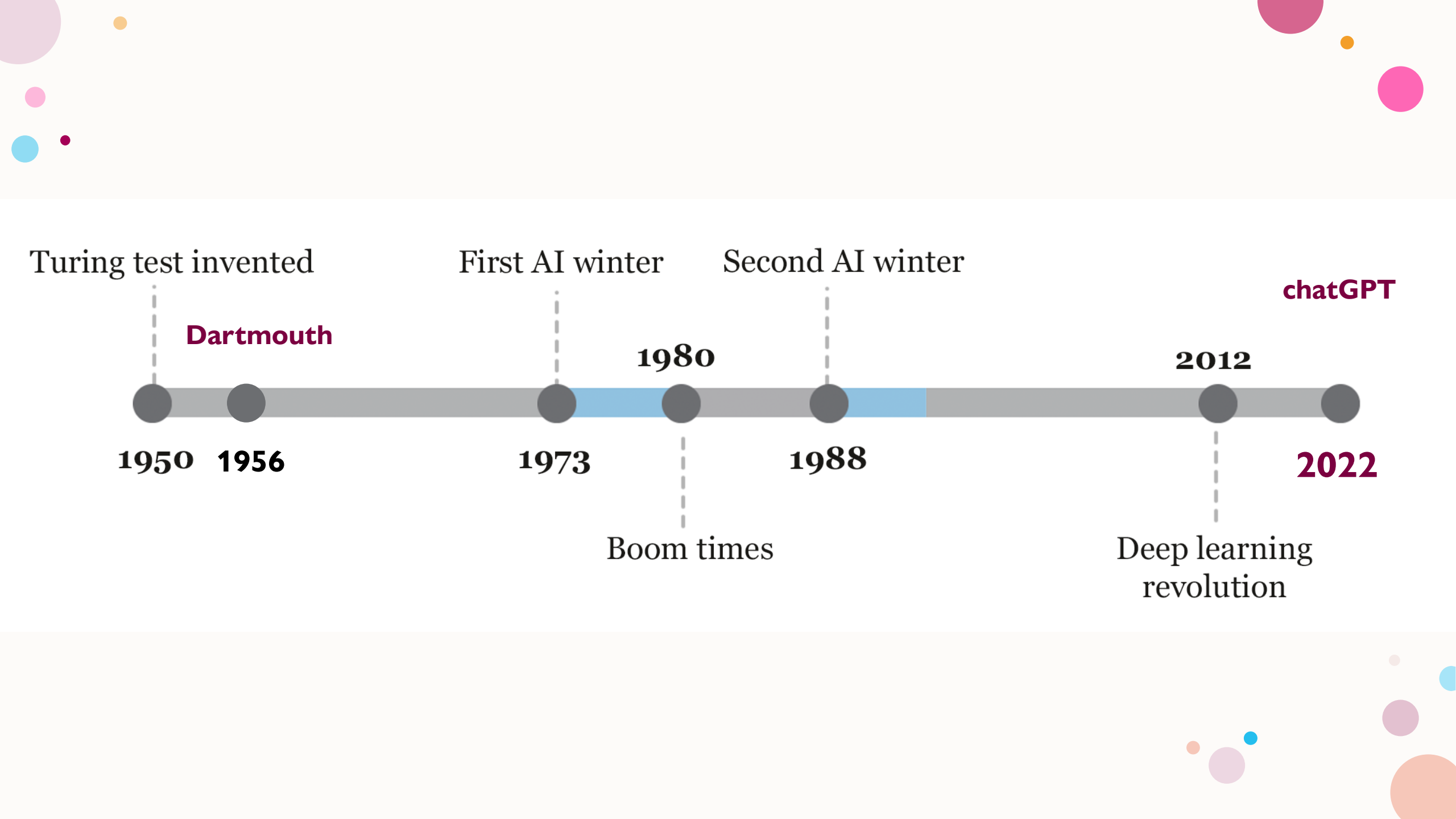
1988

2012

Deep learning
revolution

chatGPT

2022





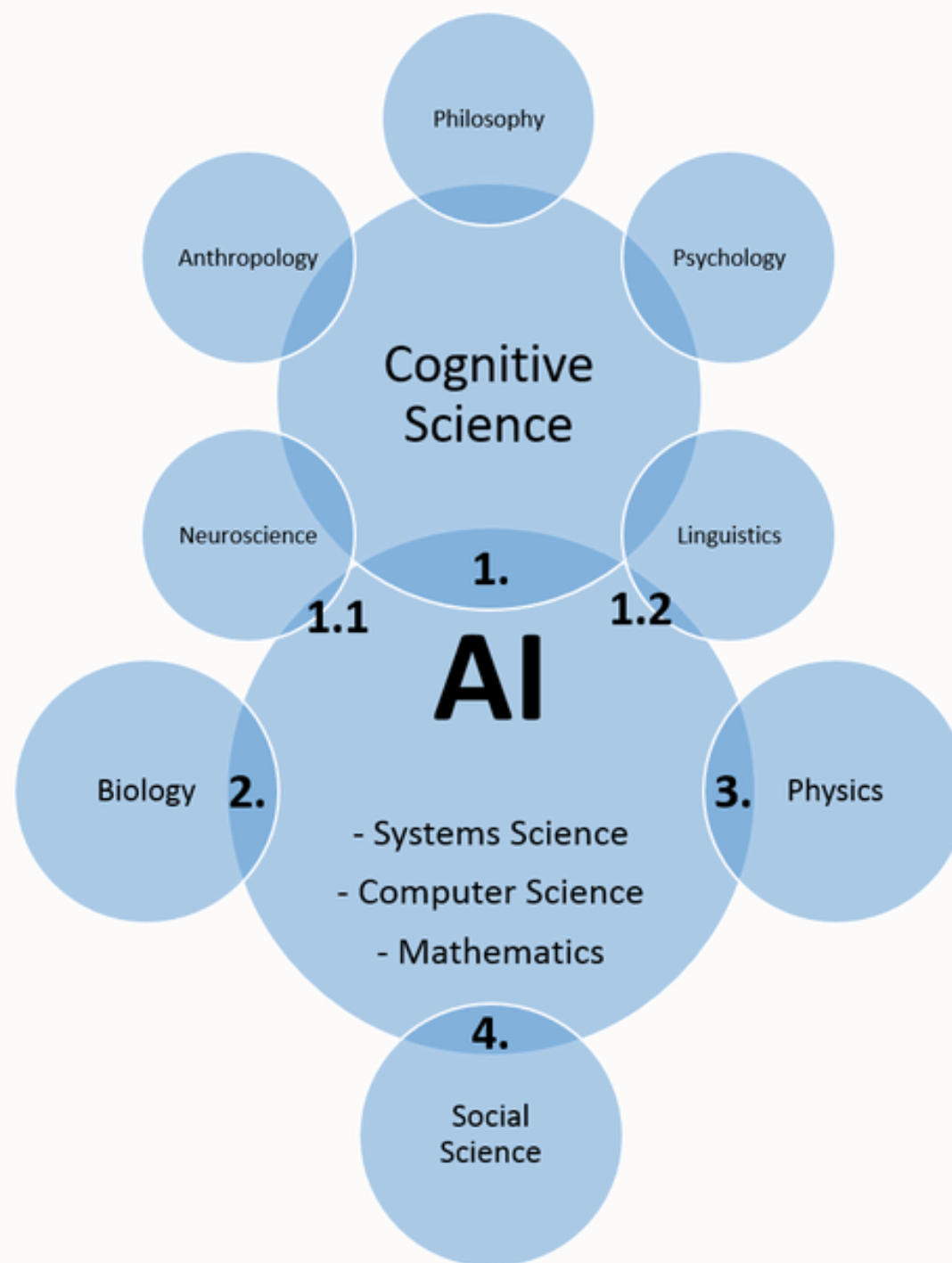
5G

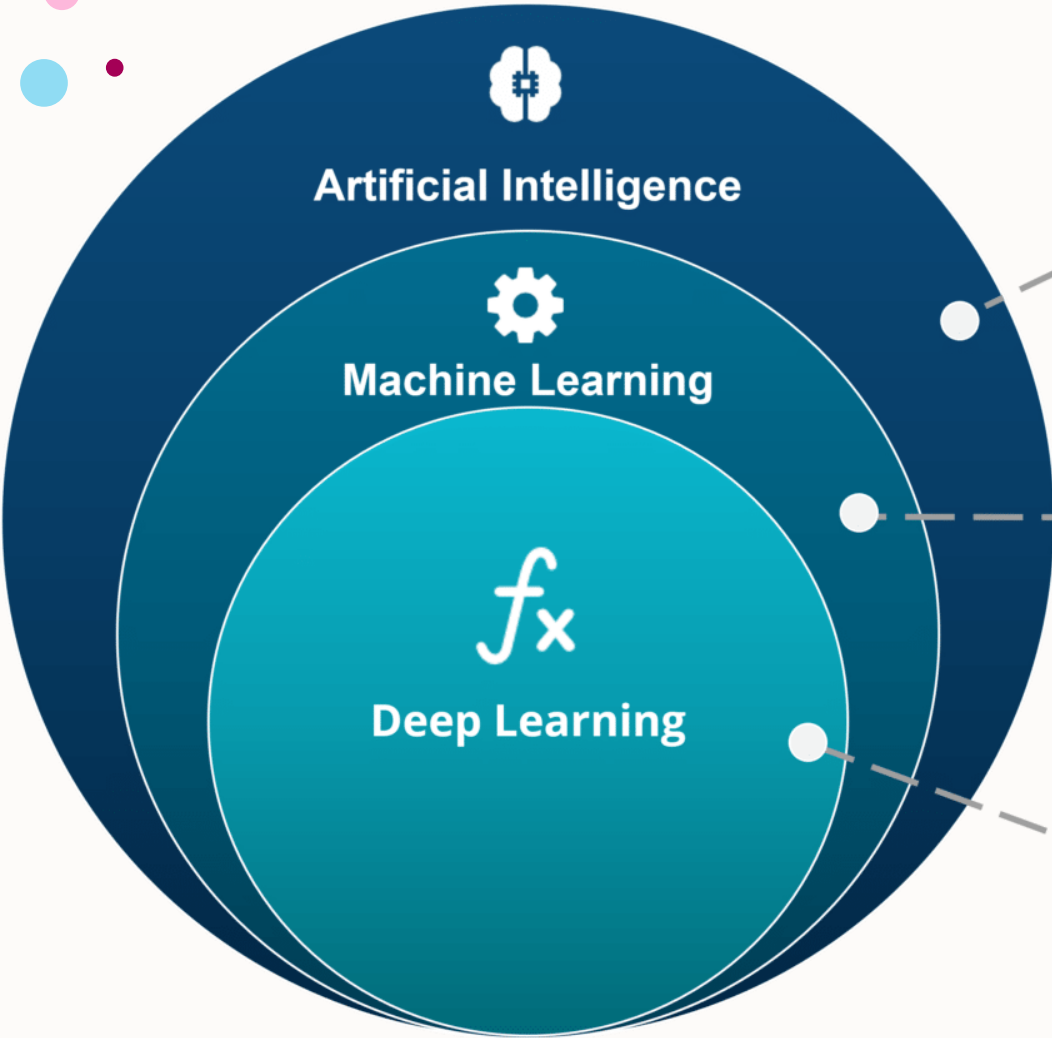
AI

IoT

**Computing
Power**

**Big
Data**





ARTIFICIAL INTELLIGENCE

A technique which enables machines to mimic human behaviour

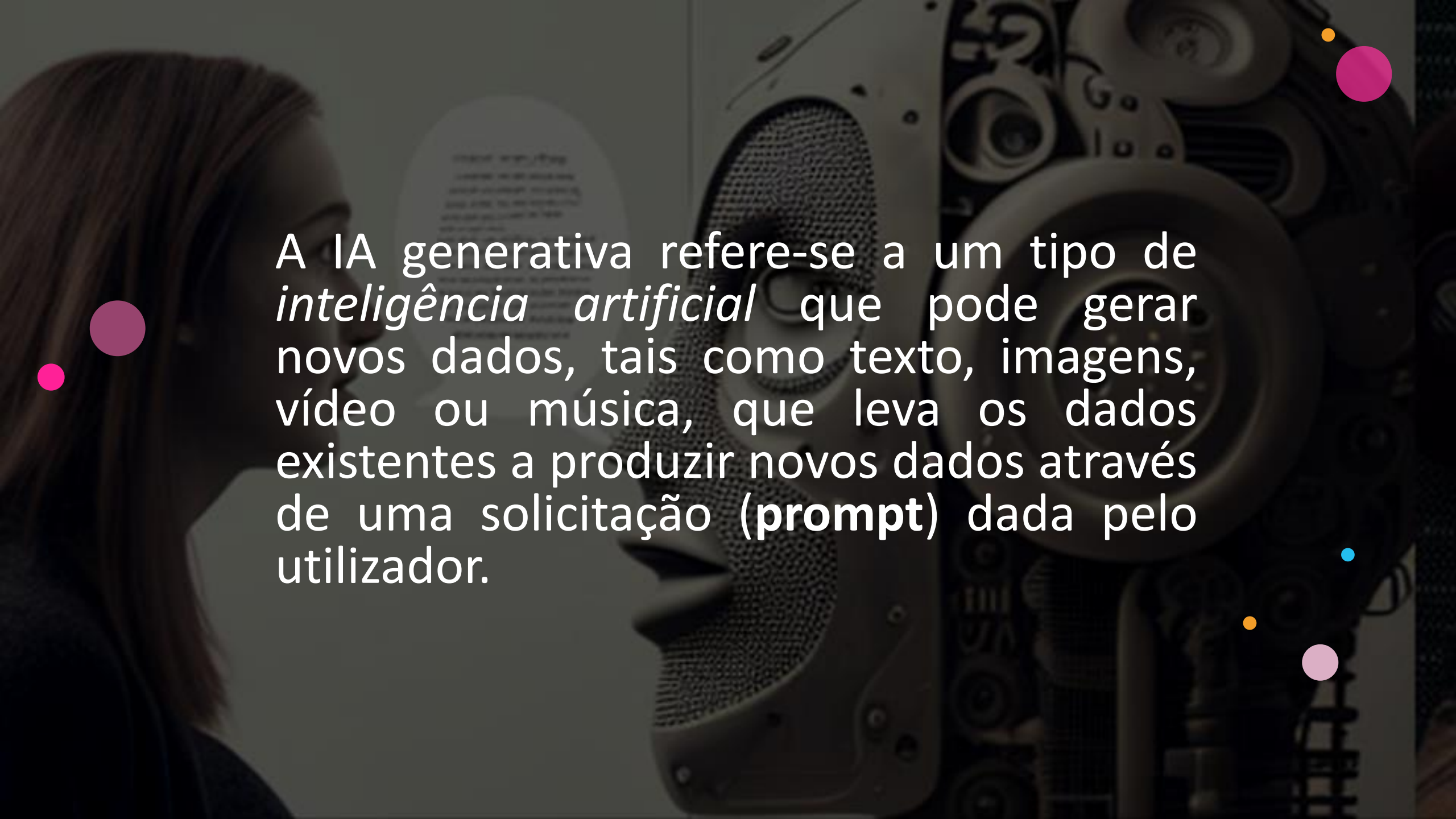
MACHINE LEARNING

Subset of AI technique which use statistical methods to enable machines to improve with experience

DEEP LEARNING

Subset of ML which make the computation of multi-layer neural network feasible

IA GENERATIVA

A woman with long brown hair is shown in profile on the left, looking towards a complex mechanical device on the right. The device features a large, circular, mesh-covered component resembling a microphone or speaker, surrounded by various gears, pipes, and mechanical parts. The background is dark and moody, with several colorful circles (pink, purple, blue, yellow) scattered around the text area.

A IA generativa refere-se a um tipo de *inteligência artificial* que pode gerar novos dados, tais como texto, imagens, vídeo ou música, que leva os dados existentes a produzir novos dados através de uma solicitação (**prompt**) dada pelo utilizador.

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LLMs and LDMs

Large Language Models (**LLMs**) são modelos baseados em redes neurais que são treinados em grandes quantidades de dados de texto para gerar texto de tipo humano.

GPT-2, GPT-3, Bard,
Bernie, BERT, chatGPT

Large Diffusion Models (**LDMs**) são outro tipo de modelo generativo. Estes modelos tornam incrivelmente fácil a geração de imagens de alta qualidade em vários estilos, usando apenas algumas palavras.

DALLE 2, MIDJOURNEY,
STABLE DIFFUSION

QUESTION ANSWERING

ARITHMETIC

LANGUAGE UNDERSTANDING

8 billion parameters

EXEMPLOS

ChatGPT



Examples

"Explain quantum computing in simple terms" →

"Got any creative ideas for a 10 year old's birthday?" →

"How do I make an HTTP request in Javascript?" →



Capabilities

Remembers what user said earlier in the conversation

Allows user to provide follow-up corrections

Trained to decline inappropriate requests



Limitations

May occasionally generate incorrect information

May occasionally produce harmful instructions or biased content

Limited knowledge of world and events after 2021

How important is it today, given the challenges of Artificial Intelligence, to rethink current educational models?



2 mensagens novas desde 14:51

Marcar como lida



U1

U2

U3

U4



V1

V2

V3

V4

Bogdan usou [/imagine](#)



Midjourney Bot ✓ BOT Hoje às 14:51

The picture features an indoor cat drinking from the Npet drinking fountain. The cat is shown sitting with its back to the viewer, showcasing its sleek and shiny fur. Its tail is resting on the ground as it drinks the fresh and clean water from the fountain. The Npet drinking fountain is visible on the right side of the image, designed with a convenient structure that provides a continuous supply of fresh water for pets. The water flows gently onto a special disk, creating a pleasant sound of running water that can be calming and relaxing for the animal. The fountain is designed in black, which makes it a stylish and modern addition to any interior. Overall, the picture emphasizes the importance of providing pets with access to fresh water and highlights the Npet drinking fountain as an ideal solution to meet this need. - [@Bogdan](#) (Waiting to start)



Compartilhar em #newbies-93



2 mensagens novas desde 14:51

Marcar como lida



U1

U2

U3

U4



V1

V2

V3

V4

Bogdan usou [/imagine](#)



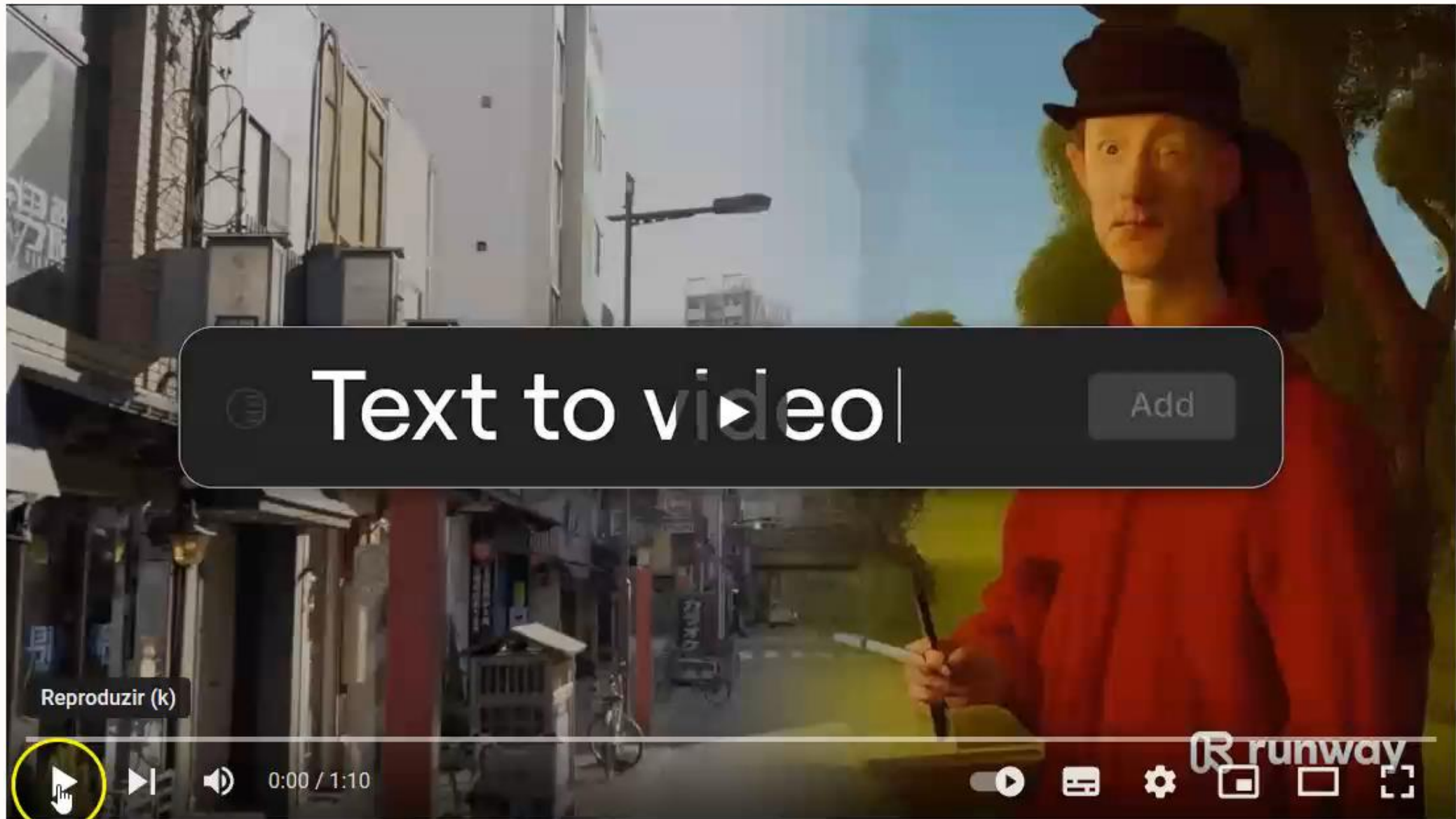
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Conversar em [#newbies-93](#)





Text to video

Add

Reproduzir (k)

0:00 / 1:10

runway

FILECHAT.IO

Filechat is the perfect tool to explore documents using artificial intelligence. Simply upload your PDF and start asking questions to your personalized chatbot.

Home



Aesop's Fables.PDF

8 minutes ago

Answer Type

Short Resp...

wh



Send

Prime Voice AI

The most realistic and versatile AI speech software, ever. Eleven brings the most compelling, rich and lifelike voices to creators and publishers seeking the ultimate tools for storytelling.

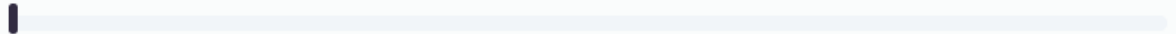
Get Started Free →

Try entering any text or [give me an idea](#)

Eleven lets you voice any length of text in top quality, all while automatically matching what is being said with how it's being said. The model works best on longer texts, so type in at least a few sentences.

— premade/Adam ▾

0 / 333





Future-Facing Generative AI

Produce customized videos featuring talking avatars at a touch of a button, giving businesses and creators superpowers.



Create videos from plain text in minutes

Synthesia is an AI video creation platform. Thousands of companies use it to create videos in 120 languages, saving up to 80% of their time and budget.

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EXEMPLOS – chatGPT 1



What are learning styles?



Learning styles are different approaches to learning that individuals use to understand and process information. They are essentially different ways of learning and refer to the preferred method of receiving, organizing, and retaining information. Different people have different learning styles, and understanding your own learning style can help you learn more effectively.

There are several different models of learning styles, but some of the most common include:

1. Visual learners: These learners prefer to learn through visual aids such as diagrams, pictures, and videos.
2. Auditory learners: These learners prefer to learn through listening, and often benefit from lectures, discussions, and podcasts.
3. Kinesthetic learners: These learners prefer to learn through hands-on experiences, and benefit from interactive activities and tasks.
4. Reading/writing learners: These learners prefer to learn through reading and writing, and benefit from written instructions

↻ Regenerate response

ChatGPT



Examples

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"How do I make an HTTP request in Javascript?" →



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I



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EXEMPLOS – chatGPT 2



Present the information in the article below in a 3-column table

Column 1 should indicate the main points and be identified as "Main Points"

Column 2 should explain the main points are important and be identified as "Importance"

Column 3 should give a practical step-by-step guide on how to implement the main points and be identified as "Step by Step"

Make complex ideas simple to understand

Your priority is to help me understand the article

Use only information from the article

The article: https://en.wikipedia.org/wiki/Learning_styles



Main Points	Importance	Step by Step
Learning styles refer to different ways of processing information	Understanding learning styles can help individuals optimize their learning experiences	1. Identify your own learning style. 2. Consider how you can adjust your study habits to align with your learning style.
There are different models of learning styles, including the VARK model and the Honey and Mumford model	Familiarizing oneself with different models can help individuals better understand their learning style and preferences	1. Research different models of learning styles. 2. Identify which model resonates most with your learning style.
Some researchers argue that learning styles have limited scientific evidence and may not be an accurate way to categorize individuals' learning preferences	Individuals should approach learning styles with a critical and reflective mindset	1. Consider the potential limitations of relying solely on learning styles to optimize learning. 2. Reflect on other factors that may influence your learning, such as motivation, attention, and prior knowledge.

Nada acontece a
partir de um
estado simples e
vazio em branco.

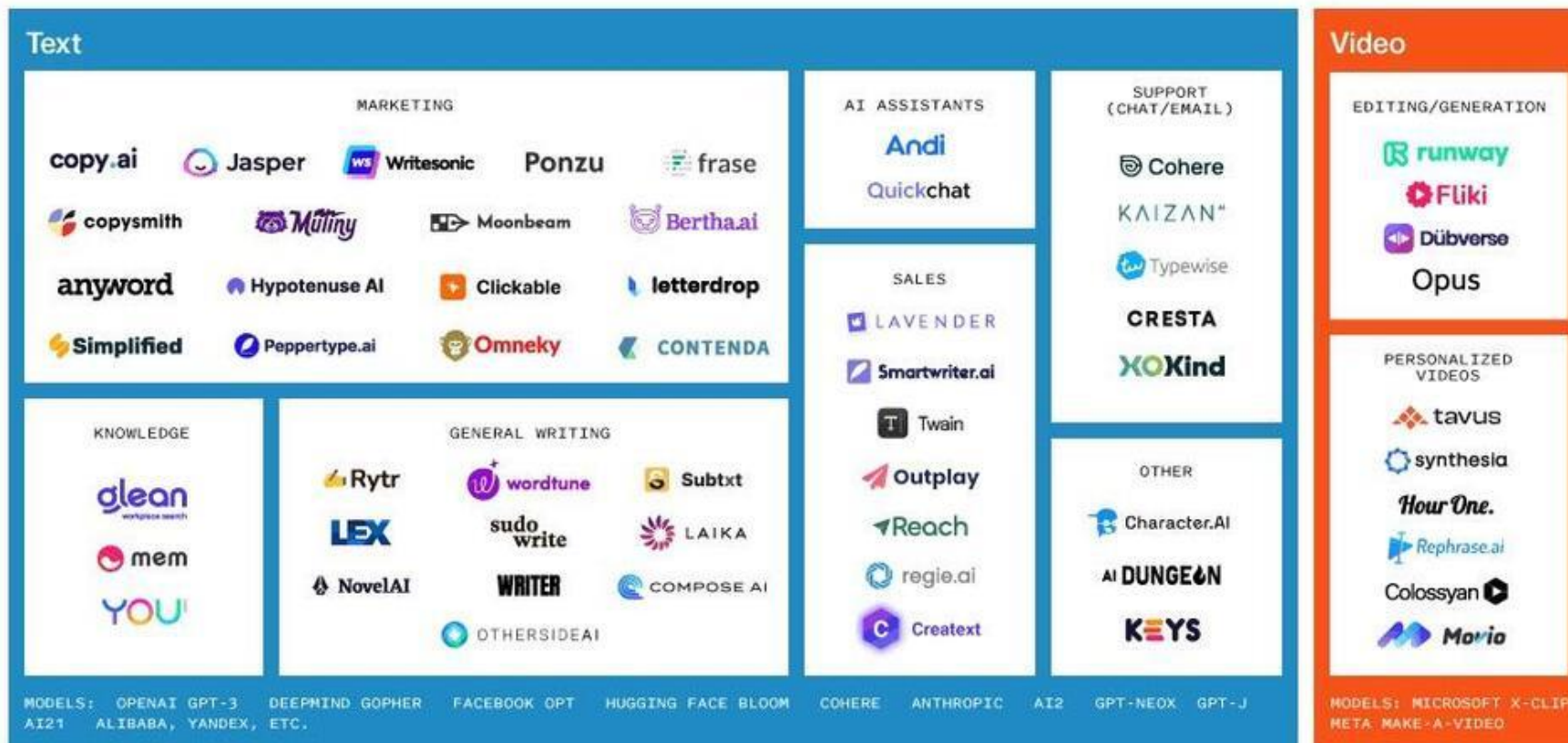
“**prompting**” será
uma competência
crítica para a
próxima década.

Mas para se saber
“**provocar**”
outputs, é preciso
ser educado e ter
uma forte base de
conhecimentos.

A importância do “prompting”

The Generative AI Application Landscape v2

A work in progress



Image

IMAGE GENERATION



CONSUMER/SOCIAL



MEDIA/ADVERTISING



DESIGN



MODELS: OPENAI DALL-E 2 STABLE DIFFUSION
CRAIYON

Code

CODE GENERATION



TEXT TO SQL



WEB APP BUILDERS



DOCUMENTATION



OTHER



MODELS: OPENAI GPT-3 TABNINE CODEGEEEX

Speech

VOICE SYNTHESIS



MODELS: OPENAI

3D

3D MODELS/SCENES



MODELS: DREAMFUSION NVIDIA GET3D NDM
APPLE ML

Other

MUSIC



GAMING



RPA



AI CHARACTERS/AVATARS



BIOLOGY/CHEMISTRY



VERTICAL APPS



MODELS: OPENAI JUKEBOX

Modelos de Linguagem Multi Modais



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PARA REFLEXÃO!

presente e futuro

TIME



Hi ChatGPT



Hello! How can I assist you today?



What do you think of a TIME cover story with the title, "The AI Arms Race Is Changing Everything?"

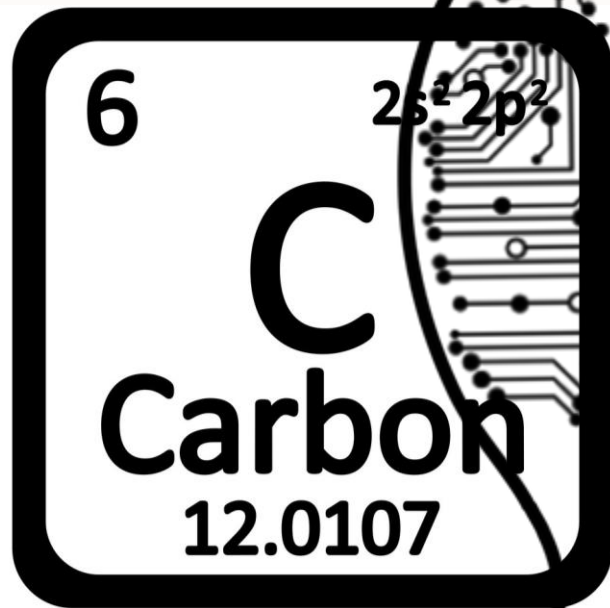


As an AI language model, I don't have personal opinions or beliefs, but I can provide some context and information on the subject.


"The AI Arms Race is Changing Everything" could be an attention-grabbing and thought-provoking title for a cover story on AI. A cover story in a widely-read publication like TIME could help raise public awareness about the potential risks and benefits of this trend, and stimulate discussions on how to ensure that AI is developed and deployed in a responsible and ethical manner.

It's important to note that the title of the story could also be interpreted as sensationalist or alarmist, and may not accurately reflect the complexities ■

by
ANDREW R. CHOW
& BILLY PERRIGO
(humans)



Artificial Intelligence



“O melhor criador/autor não será
nem um **LLM** nem um humano,

mas um humano que utiliza um LLM
de forma proficiente e perspicaz”.

Floridi





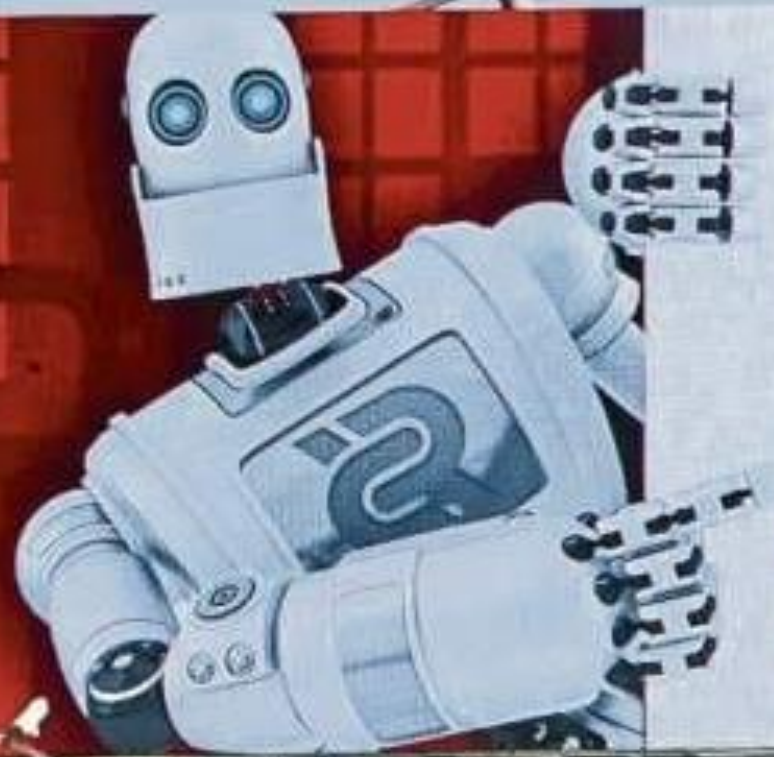
**Seremos desafiados por
agentes cognitivos.
Como (SABER) viver
lado a lado com eles?**



Que (novos) modelos de formação e educação serão necessários?



Será que precisamos de novos modelos de sociedade para integrar as chamadas máquinas "inteligentes"?



**WE'RE STILL HIRING
HUMANS**



CarnegieRobotics.com

ORANGE BARREL | MEDIA

Obrigado



twitter.com/mbrasneves



linkedin.com/in/mbrasneves/



mbrasneves@gmail.com