

FERRAMENTAS ASSISTIDAS POR INTELIGÊNCIA ARTIFICIAL

Desafios e Oportunidades para a Aprendizagem

Marco Neves, 24 Fevereiro/23

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

The image features a white background with decorative elements in the corners. In the top-left corner, there are several circles in shades of pink, light blue, and orange. In the top-right corner, there are circles in shades of pink, orange, and light blue. In the bottom-right corner, there are circles in shades of pink, light blue, and orange. The central text is 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.”

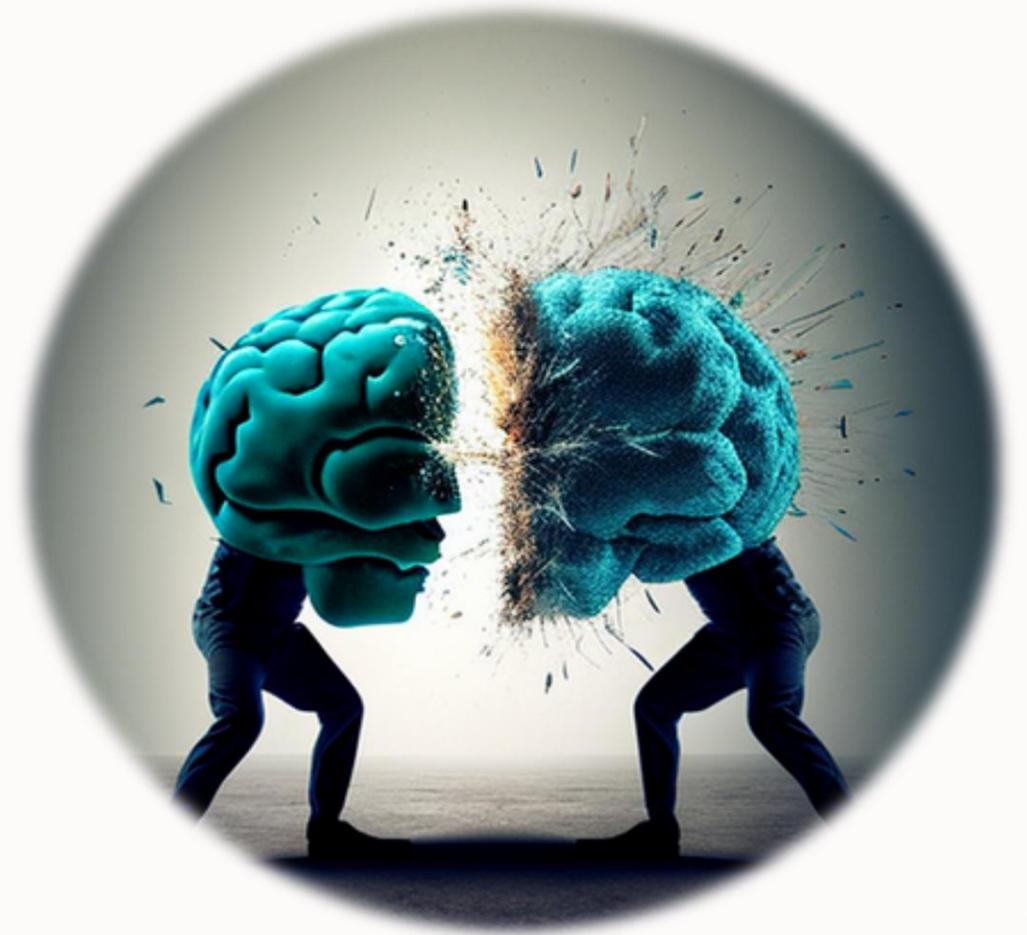
A Collection of Definitions of Intelligence

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

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



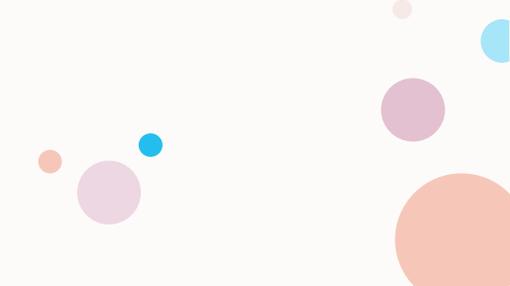
Cornell University





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**)

INTERNET

Informação
(professor)

INTELIGÊNCIA ARTIFICIAL
(Large Language Models - LLM)

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

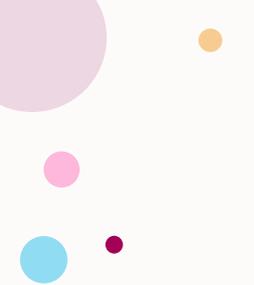
Luciano Floridi

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

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

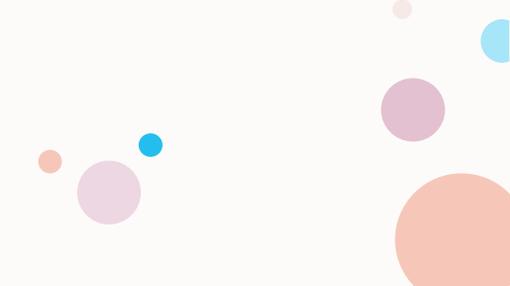
The image features a white background with several colorful circles of various sizes scattered in the corners. In the top-left corner, there are circles in shades of pink, light blue, and orange. In the top-right corner, there are circles in shades of pink, orange, and light blue. In the bottom-right corner, there are circles in shades of pink, light blue, and orange. The central text is in a bold, black, sans-serif font.

INTELIGÊNCIA ARTIFICIAL

A cluster of decorative circles in the top-left corner, including a large light purple circle, a small yellow circle, a small pink circle, a small light blue circle, and a small dark blue circle.

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.**

A cluster of decorative circles in the bottom-right corner, including a small orange circle, a small light purple circle, a small light blue circle, a small dark purple circle, and a large orange circle.

The image features a white background with several colorful circles of various sizes scattered in the corners. In the top-left corner, there are circles in shades of pink, light blue, and orange. In the top-right corner, there are circles in shades of pink and orange. In the bottom-right corner, there are circles in shades of pink, light blue, and orange. The text is centered and reads:

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 consisting of various colored circles (pink, blue, orange, purple) scattered in the corners. 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

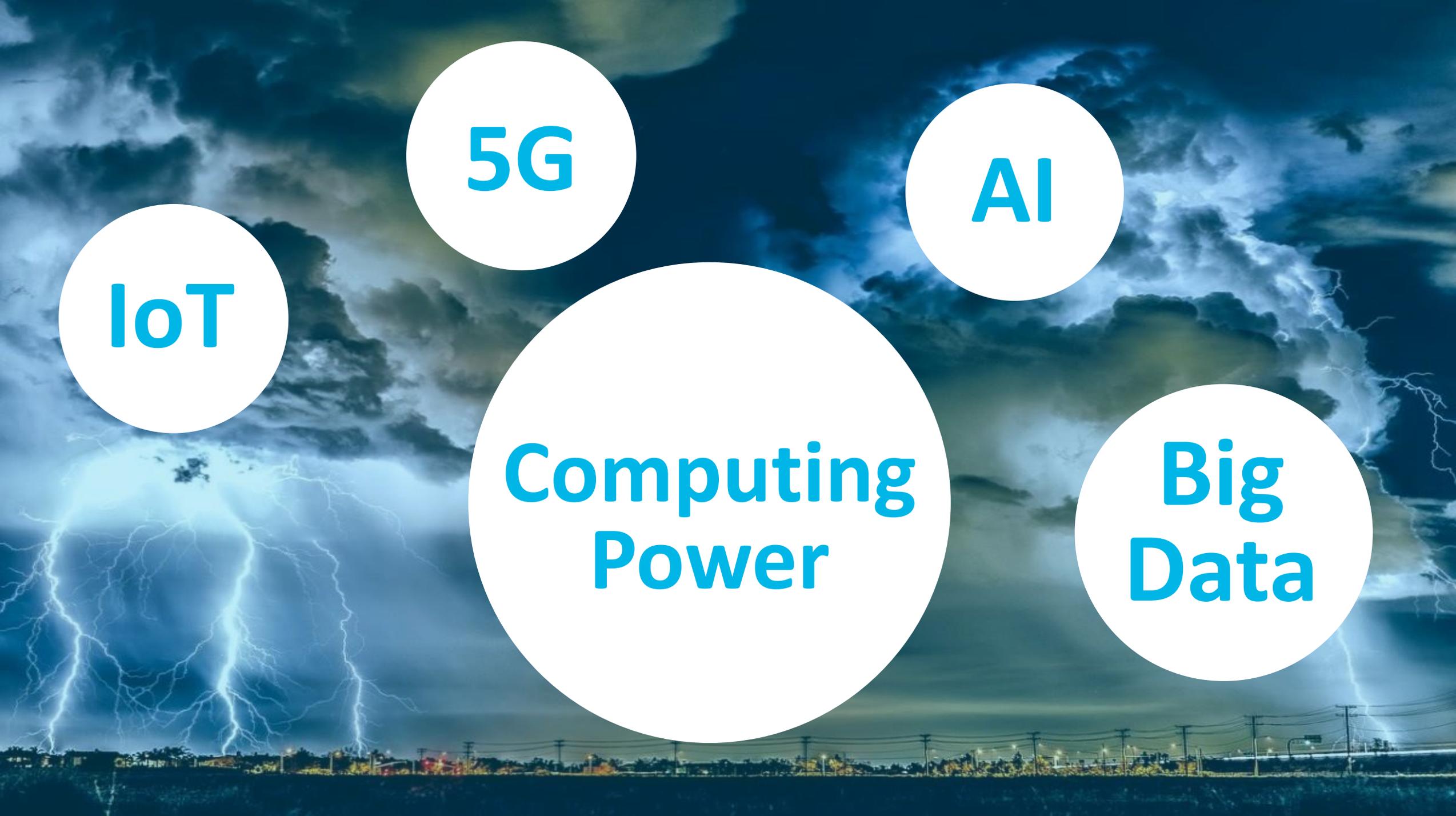
1988

Deep learning
revolution

2012

chatGPT

2022



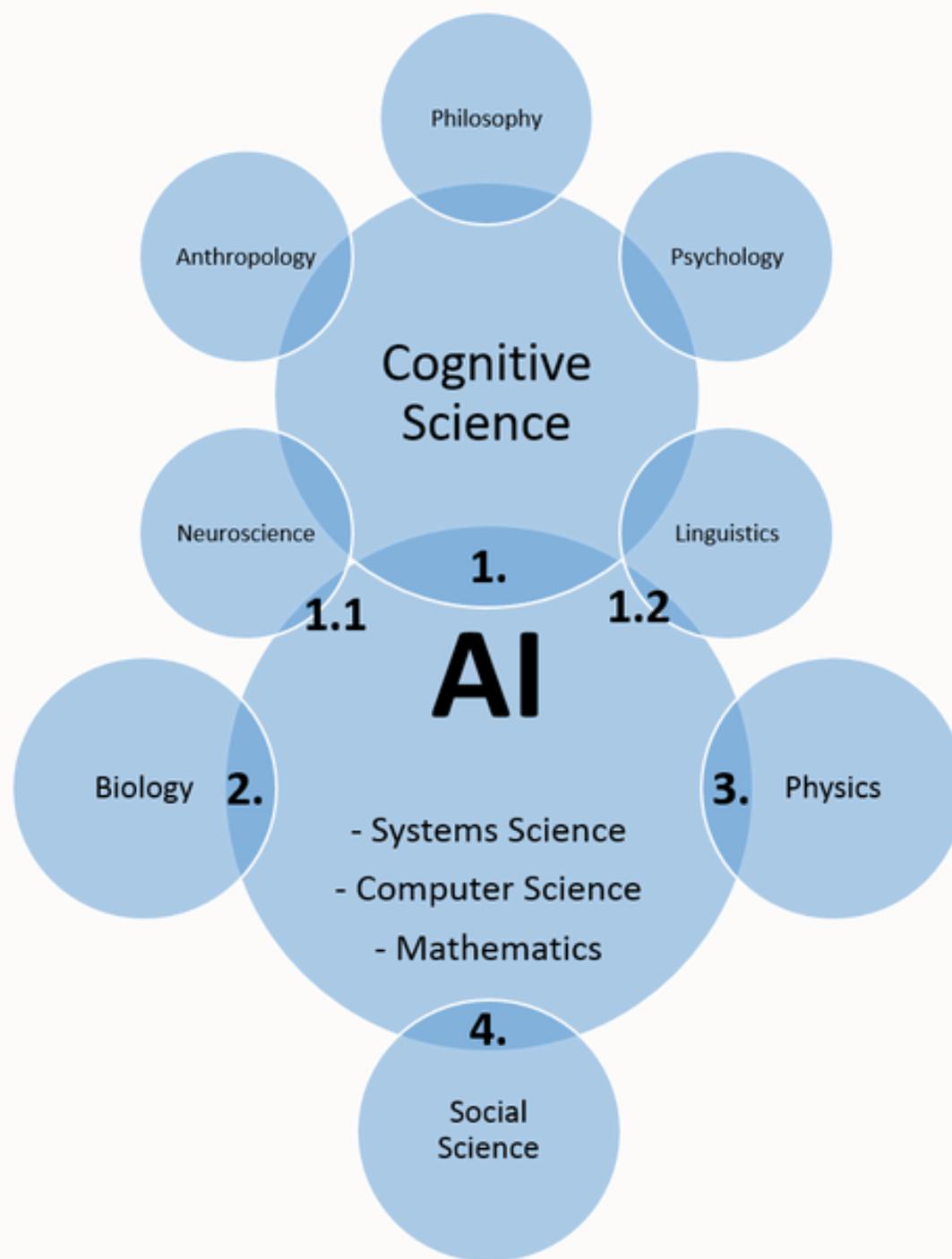
5G

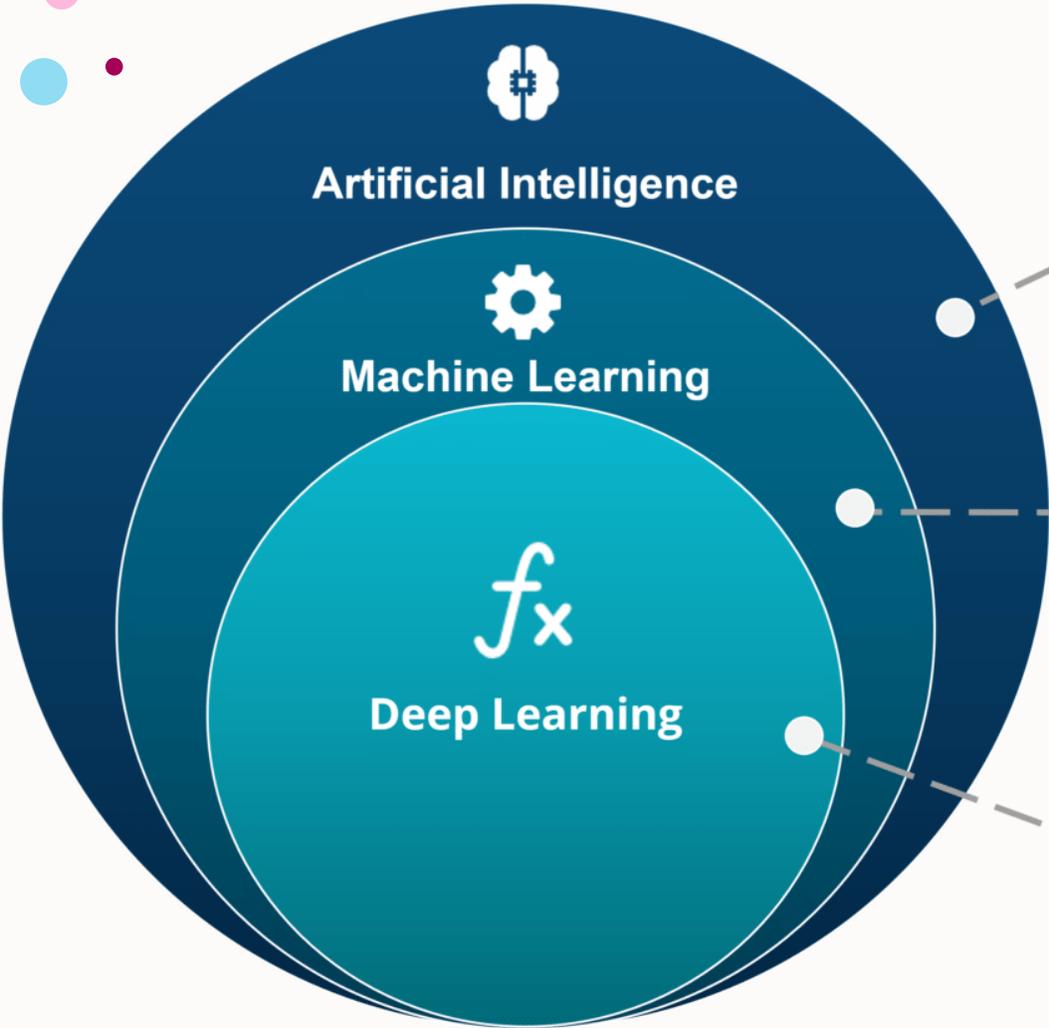
AI

IoT

**Computing
Power**

**Big
Data**





ARTIFICIAL INTELLIGENCE

A technique which enables machines to mimic human behaviour

MACHINE LEARNING

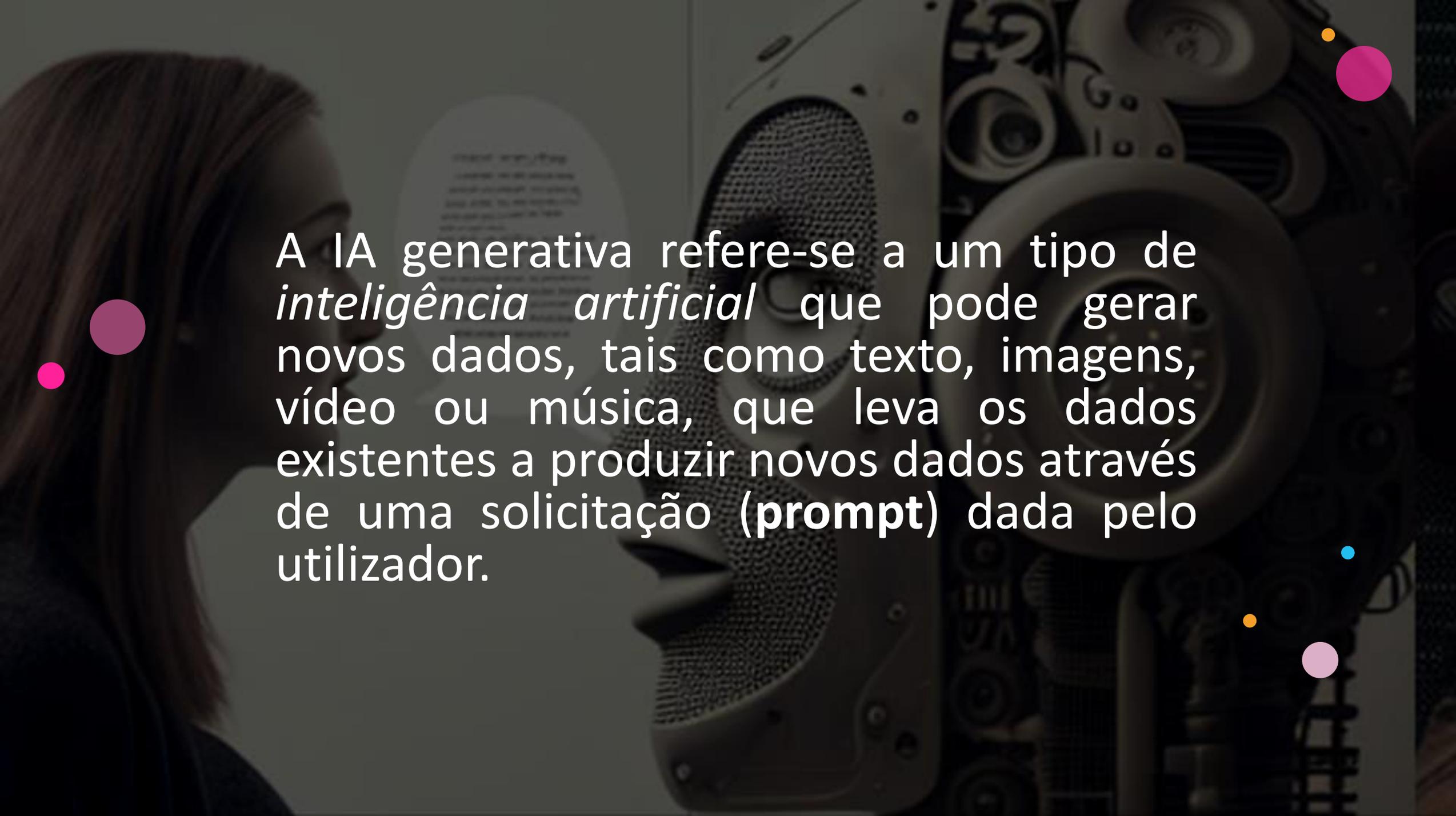
Subset of AI technique which use statistical methods to enable machines to improve with experience

DEEP LEARNING

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

The image features a white background with several colorful circles of varying sizes scattered in the corners. In the top-left corner, there are circles in shades of pink, light blue, and a small dark red one. In the top-right corner, there are circles in shades of pink and orange. In the bottom-right corner, there are circles in shades of pink, light blue, and orange. The text 'IA GENERATIVA' is centered in the middle of the page.

IA GENERATIVA



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.

The slide features a white background with decorative elements in the corners. The top-left corner contains several circles in shades of purple, pink, and blue. The top-right corner features circles in shades of purple, pink, and orange. The bottom-right corner has circles in shades of purple, blue, and orange. The central text is in a bold, dark purple font.

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

The page features decorative circles in the corners. The top-left corner has a large light purple circle, a small yellow circle, a small pink circle, a small cyan circle, and a tiny dark red circle. The top-right corner has a large dark pink circle, a small yellow circle, and a medium pink circle. The bottom-right corner has a small orange circle, a medium light purple circle, a small cyan circle, a medium light purple circle, a small light grey circle, a medium cyan circle, a medium light purple circle, and a large orange circle.

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?





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](#)

Marco Neves
aia1winning@gmail....

Settings

Log out

Tome for iOS

Shared with me

Reflections on ...

Deleted

Invite teammates

485 credits
Refer & earn

Recently edited



[Template] Design Portfolio
Marco Neves · Edited 4 months ago

Product Design Review

[Template] Product Design Review
Marco Neves · Edited 4 months ago

Full Name

Area of Expertise

Education & Training

[Template] Freelancer/Contractor About ...
Marco Neves · Edited 4 months ago

[Company Name]

Your company's brief tagline + the value your product delivers

[Template] Fundraising - Series A
Marco Neves · Edited 4 months ago

Company Name

Your company's tagline

[Template] Sales Pitch
Marco Neves · Edited 4 months ago

Team Name Standup

[Template] Cross-functional Team Stand...
Marco Neves · Edited 4 months ago

Company All-Hands

[Template] All-Hands Meeting
Marco Neves · Edited 4 months ago



Threadflow Product Review

EmailX Sales Deck



[Template] EmailX Sales Deck
Marco Neves · Edited 4 months ago

Create

?



U1 U2 U3 U4 

V1 V2 V3 V4

 Bogdan usou [/imagine](#)



Midjourney Bot  Hoje às 14:51

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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



The logo for D-ID, featuring the text "D-ID" in a white, sans-serif font next to a white outline of a human head profile facing right. The background is a solid black square.

D-ID

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.

The slide features a white background with decorative elements consisting of various colored circles (pink, blue, orange, purple) scattered in the corners. The main text is centered and reads:

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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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	<ol style="list-style-type: none">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	<ol style="list-style-type: none">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	<ol style="list-style-type: none">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.

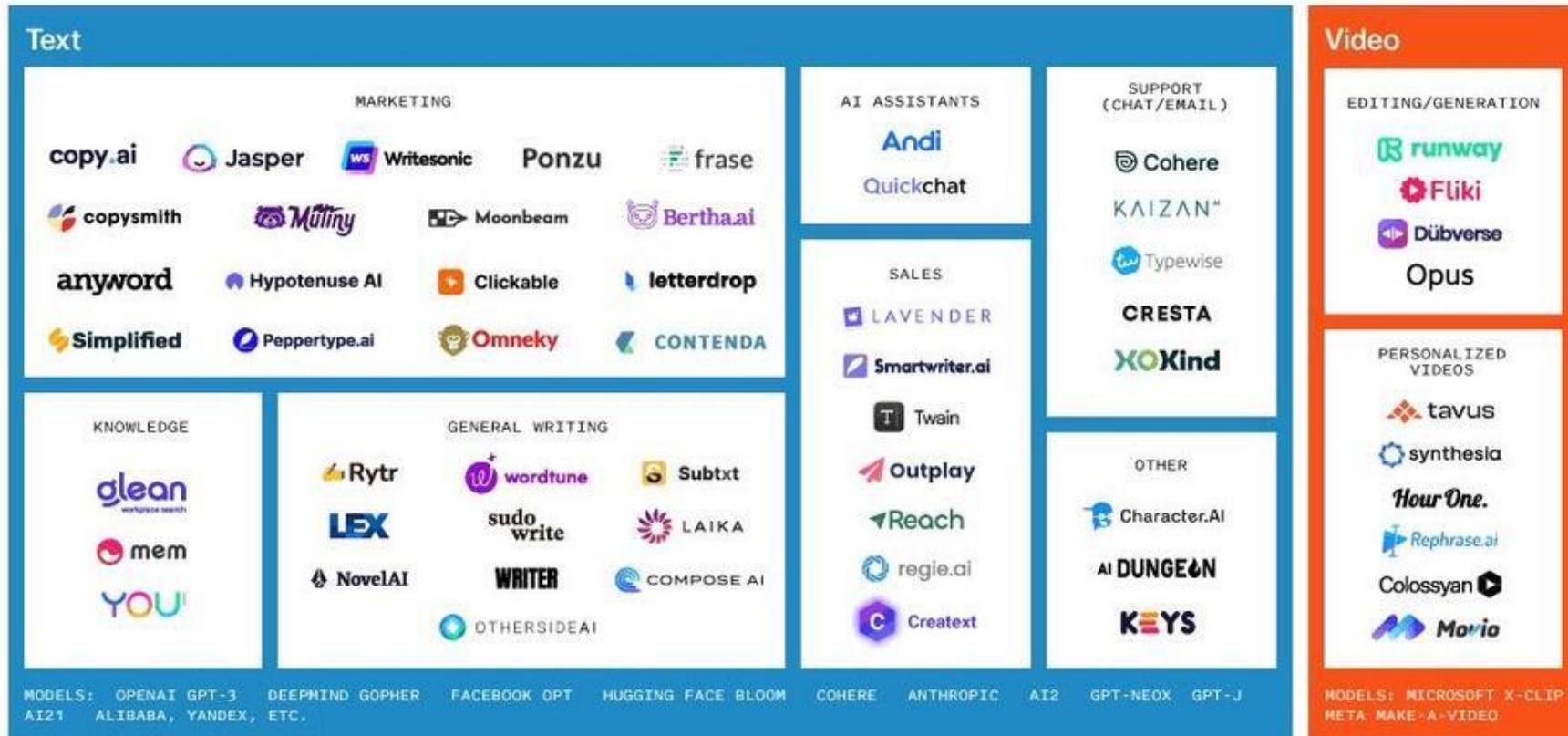
Mas para se saber “**provocar**” outputs, é preciso ser educado e ter uma forte base de conhecimentos.

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
CRAZYON

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



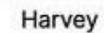
AI CHARACTERS/AVATARS



BIOLOGY/CHEMISTRY



VERTICAL APPS



MODELS: OPENAI JUKEBOX

Modelos de Linguagem Multi Modais



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PARA REFLEXÃO!

presente e futuro

TIME

T Hi ChatGPT

 Hello! How can I assist you today?

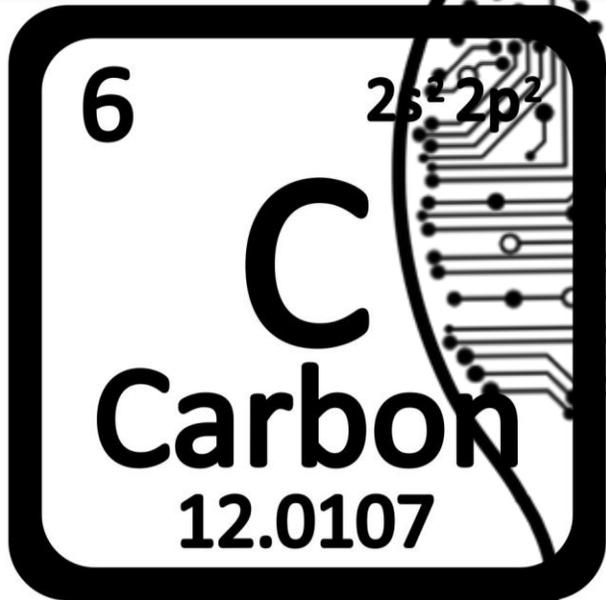
T What do you think of a TIME cover story with the title, "The AI Arms Race Is Changing Everything?"

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

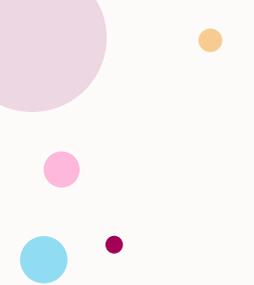
"The AI Arms Race is Changing Everything" could be an attention-grabbing and thought-provoking title for a cover story on AI. A cover story in a widely-read publication like TIME could help raise public awareness about the potential risks and benefits of this trend, and stimulate discussions on how to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



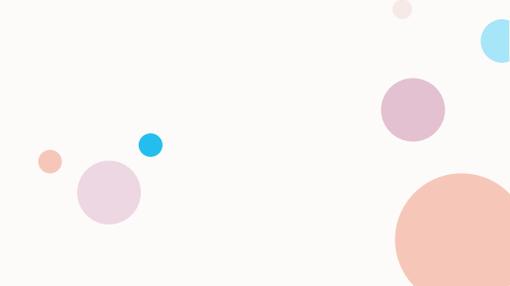
Artificial Intelligence



“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





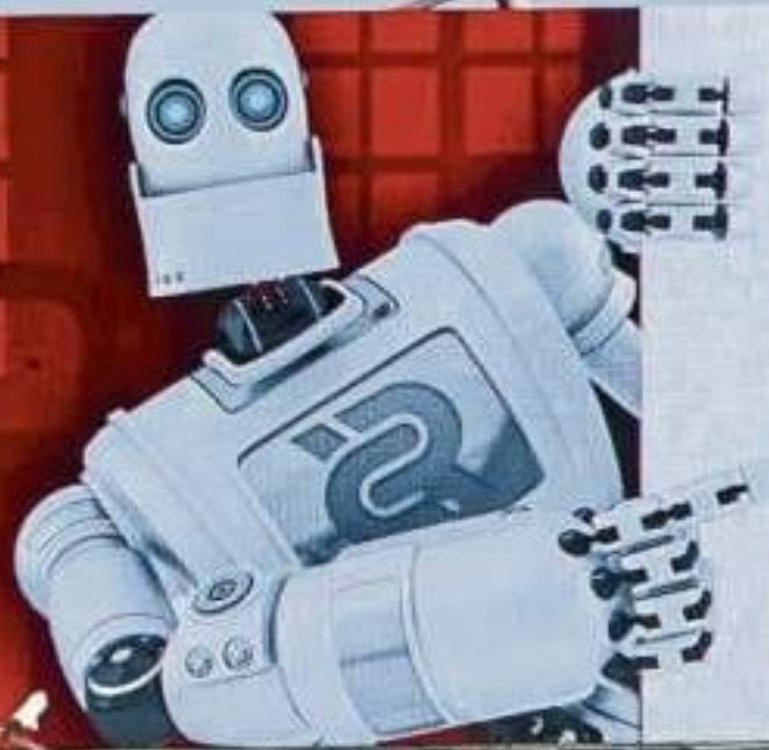
**Seremos desafiados por
agentes cognitivos.
Como (SABER) viver
lado a lado com eles?**



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/](https://www.linkedin.com/in/mbrasneves/)



mbrasneves@gmail.com