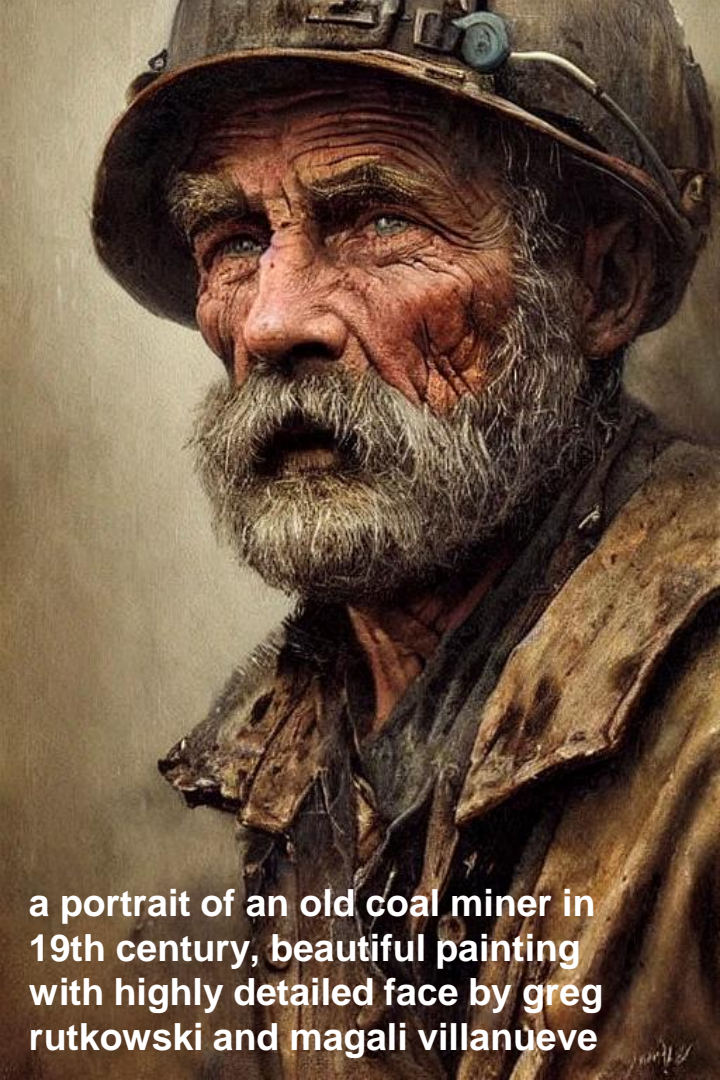


Umělá Inteligence (A.I.)

O čem to je, co je ten humbuk,
dopady na vzdělání, socio-
ekonomiku, a (blízkou)
budoucnost.



a portrait of an old coal miner in
19th century, beautiful painting
with highly detailed face by greg
rutkowski and magali villanueve

Bio Intro

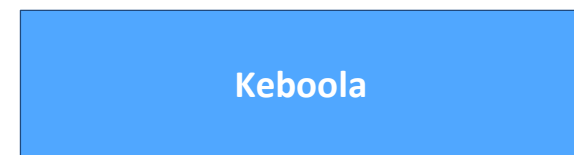
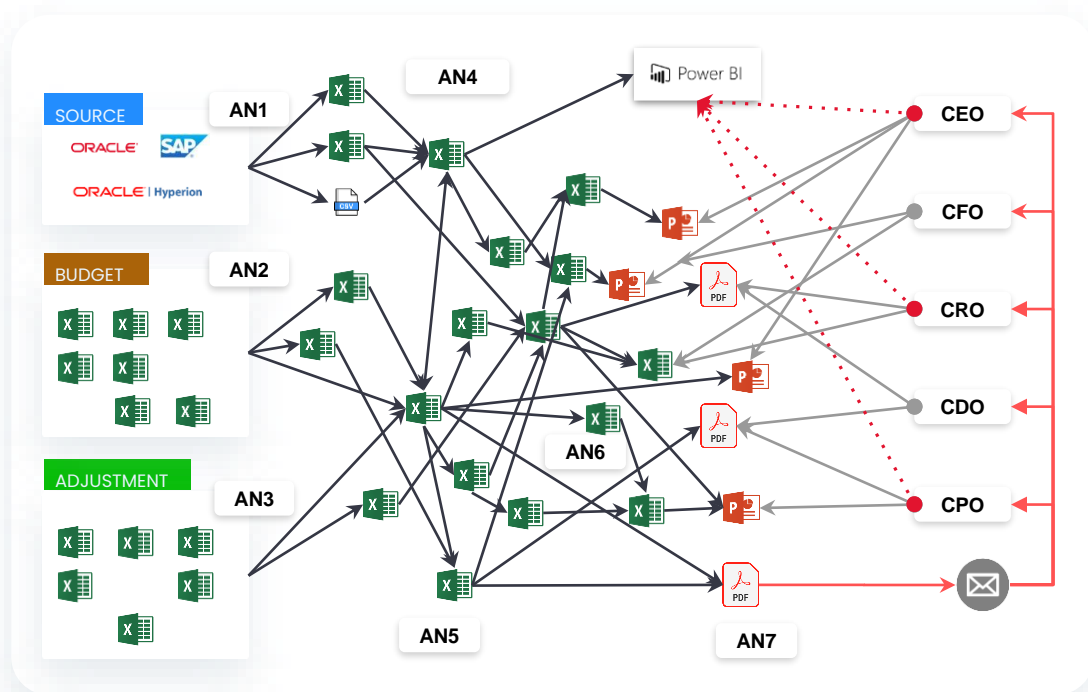
O MĚ

Jsem člověk (zatím). Zvědavý, s vášní pro technologie, transformaci a budování prostředí, kde lidé i data mohou společně prosperovat. V současné době CTO a COO ve společnosti Keboola, kde vedu adopci AI a inovace v oblasti dat. Mám globální manažerské zkušenosti ze společností Tesco, Erste Group a Home Credit. Geograficky střední Evropa a jihovýchodní Asie. Zaměřuji se na přetváření dat v konkrétní kroky a na prosazování transformace založené na AI s důrazem na člověka pro naše klienty.

Koníčkem je mi dlouhověkost.

O FIRMĚ KEBOOLA

AUTOMATIZUJEME MANUÁLNÍ PROCESY Z EXCELOVÉHO PEKLA DĚLÁME DATOVÝ RÁJ



STRUČNÁ HISTORIE ... A.I.

TADY TO ZAČALO

November 30, 2022

Basic service. ChatGPT was launched on **November 30, 2022**, by San Francisco-based OpenAI (the creator of the initial GPT series of large language models; DALL·E 2, a diffusion model used to generate images; and Whisper, a speech transcription model).



Wikipedia

[https://en.wikipedia.org › wiki › ChatGPT](https://en.wikipedia.org/wiki/ChatGPT) ⋮

ChatGPT - Wikipedia

ALE TOHLE ZAČALO UŽ TADY 2017

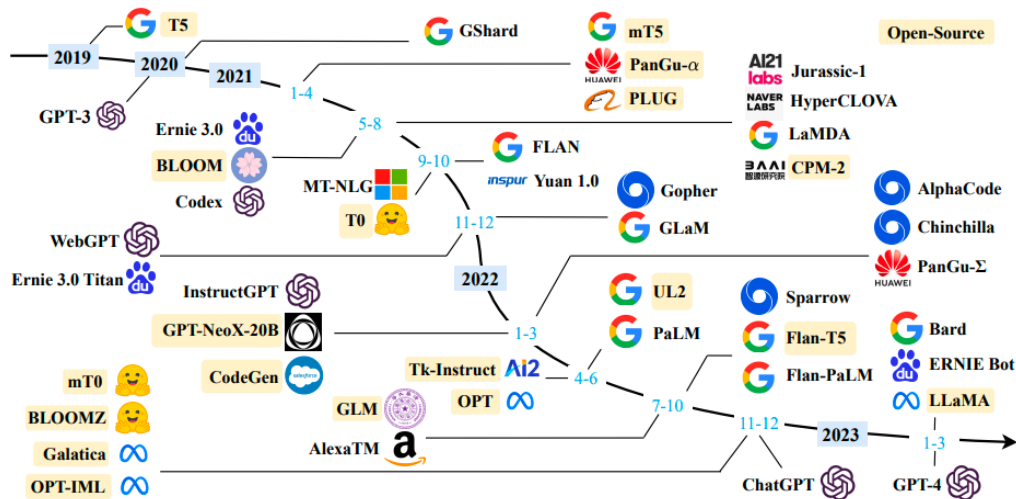
BLOG >

Transformer: A Novel Neural Network Architecture for Language Understanding

THURSDAY, AUGUST 31, 2017

Posted by **Jakub Oszkoren**, Software Engineer, Natural Language Understanding

Neural networks, in particular **recurrent neural networks** (RNNs), are now at the core language understanding tasks such as **language modeling**, **machine translation** and **Is All You Need**, we introduce the Transformer, a novel neural network architecture b mechanism that we believe to be particularly well suited for language understanding



VLASTNĚ TO VŠECHNO ZAČALO TEHDY

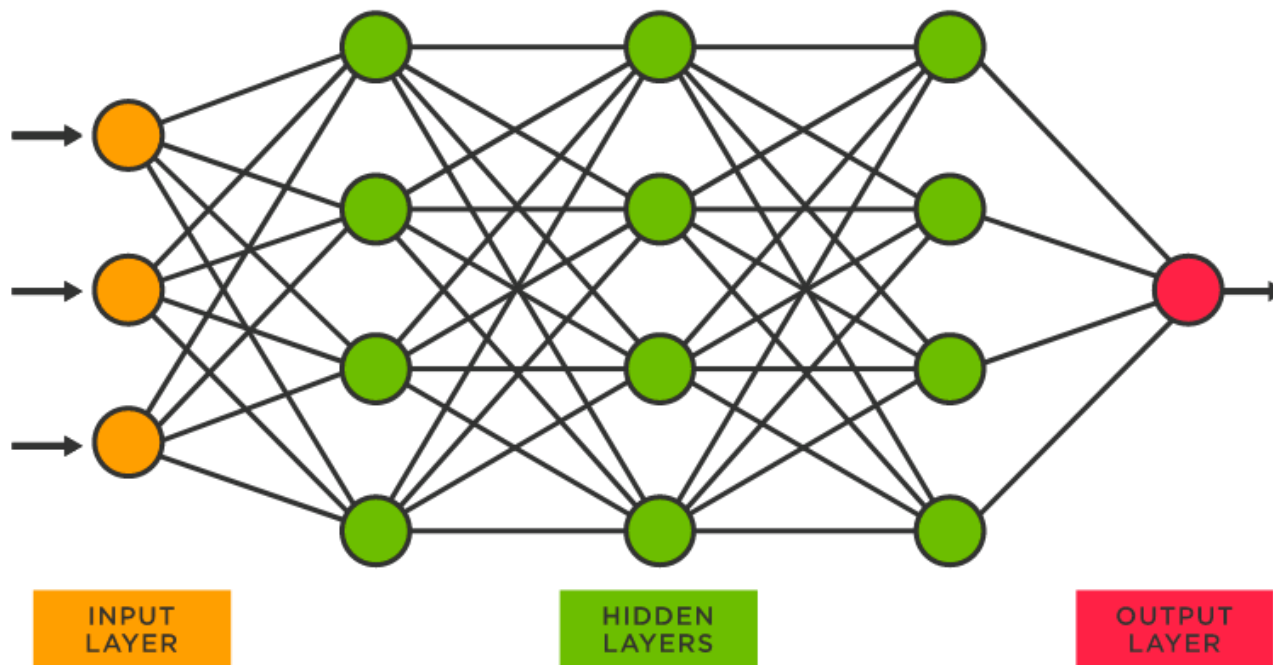
driving cars (e.g., waymo), generative and creative tools (ChatGPT and AI art), and supernuman play and analysis in strategy games (such as chess and Go).^[1]

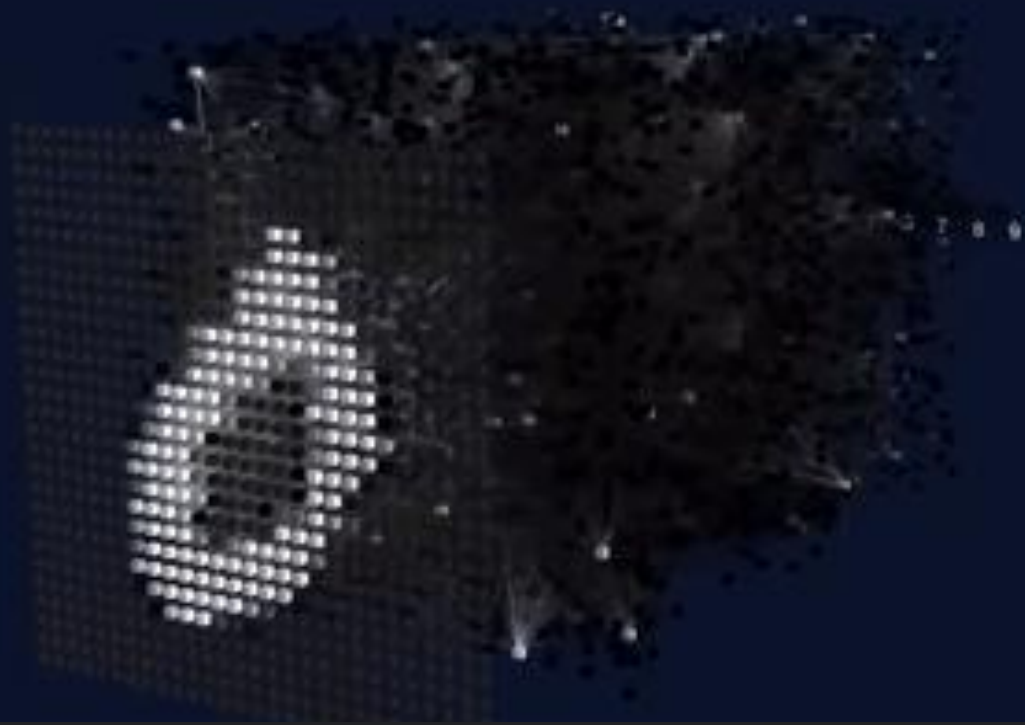
Alan Turing was the first person to conduct substantial research in the field that he called Machine Intelligence.^[2] Artificial intelligence was founded as an academic discipline in 1956.^[3] The field went through multiple cycles of optimism^{[4][5]} followed by disappointment and loss of funding.^{[6][7]} Funding and interest vastly increased after 2012 when deep learning surpassed all previous AI techniques,^[8] and after 2017 with the transformer architecture.^[9] This led to the AI spring of the early 2020s, with companies, universities, and laboratories overwhelmingly based in the United States pioneering significant advances in artificial intelligence.^[10]

The various sub-fields of AI research are centered around particular goals and the use of particular tools. The tradition reasoning, knowledge representation, planning, learning, natural language processing, perception, and support for rol

Co je vlastně současné A.I.? Co je LLM?

JEDNODUCHÁ NEURONOVÁ SÍŤ





GPT-4's Scale: GPT-4 has ~1.8 trillion parameters across 120 layers, which is over 10 times larger than GPT-3. Jul 11, 2023

Large language model

Co je to LLM?

Article [Talk](#)

From Wikipedia, the free encyclopedia

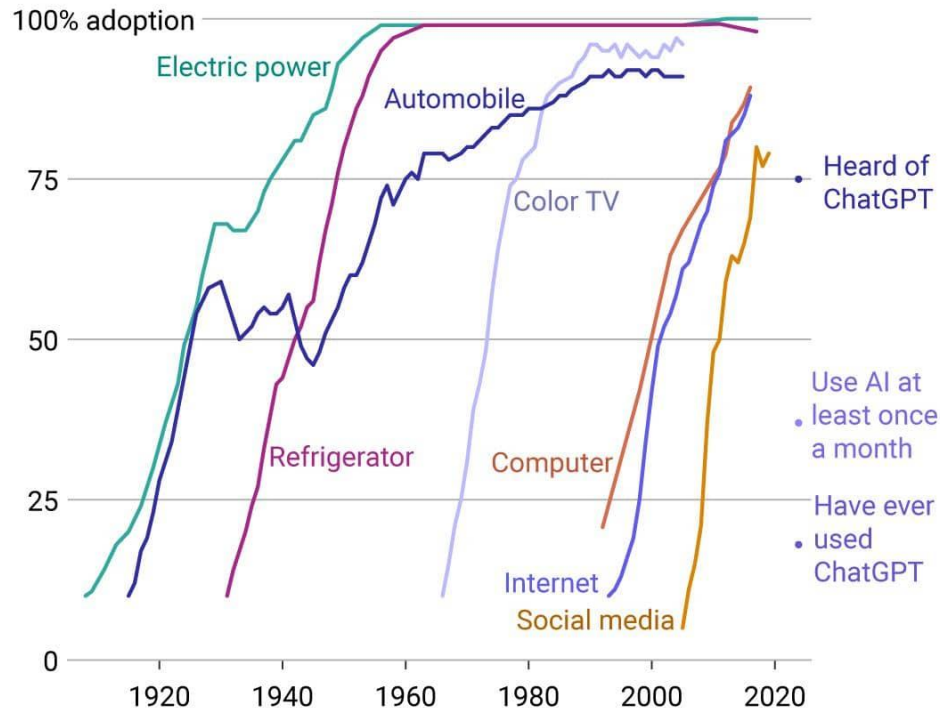
A **large language model (LLM)** is a [language model](#) notable for its ability to achieve general-purpose language generation. LLMs acquire these abilities by learning [statistical relationships from text documents](#) during a computationally intensive [self-supervised](#) and [semi-supervised](#) training process.^[1] LLMs are [artificial neural networks](#) typically built with a [transformer](#)-based architecture. Some recent implementations are based on alternative architectures such as [recurrent neural network](#) variants and [Mamba](#) (a [state space model](#)).^{[2][3][4]}

LLMs can be used for text generation, a form of [generative AI](#), by taking an input text and repeatedly predicting the next token or word.^[5] Up to 2020, [fine tuning](#) was the only way a model could be adapted to be able to accomplish specific tasks. Larger sized models, such as [GPT-3](#), however, can be [prompt-](#)

Technologický vývoj

Modern technologies are quicker to be adopted

It took five decades for U.S. households to go from 10% adoption of electricity to 99%. In contrast, it took just 15 years for social media to go from 5% adoption to 79%.



Note: The 2023 survey results are for American adults, while the historical data are for American households.

Data source: Our World in Data, Pew Research Center, YouGov

Data Classification: Internal

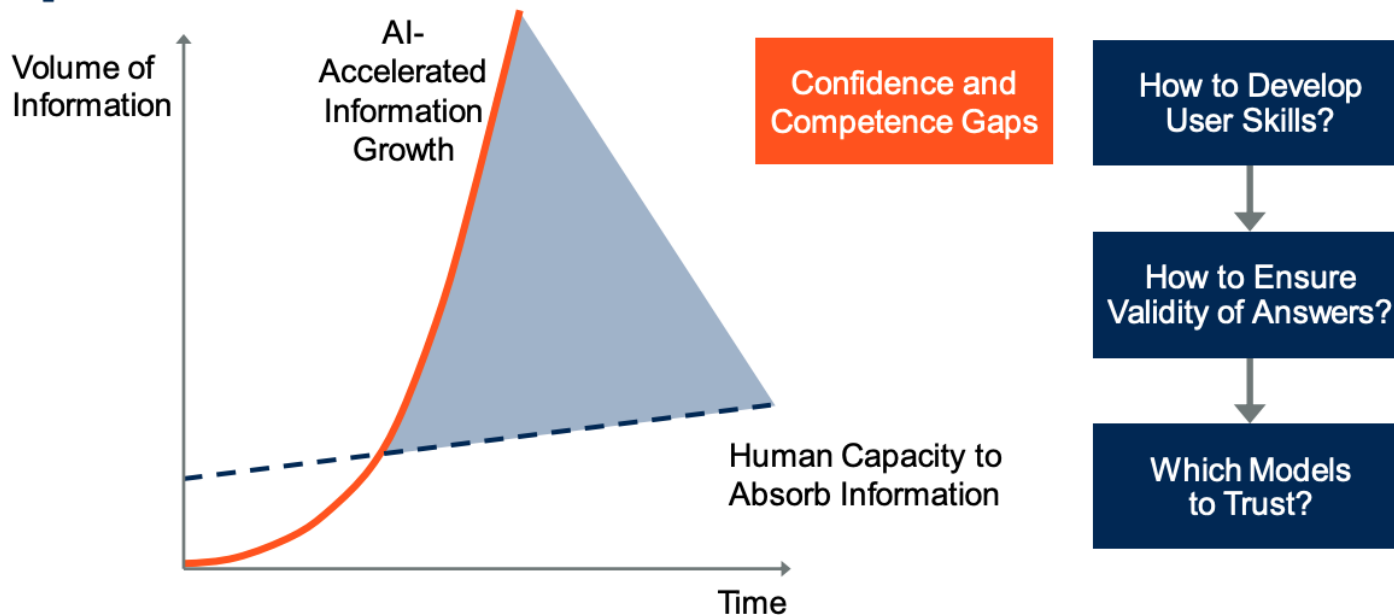
NEJRYCHLEJI ADOPTOVANA TECHNOLOGIE



AI adopce cca ~3 roky na cca 60%

INFORMACE GENEROVANÉ AI BUDOU EXPONENCIÁLNĚ RŮST

Exponential Growth of Information



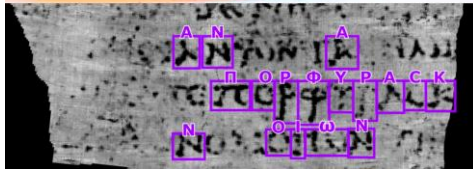
Frozen Exclave

Příští programovací jazyk je čeština



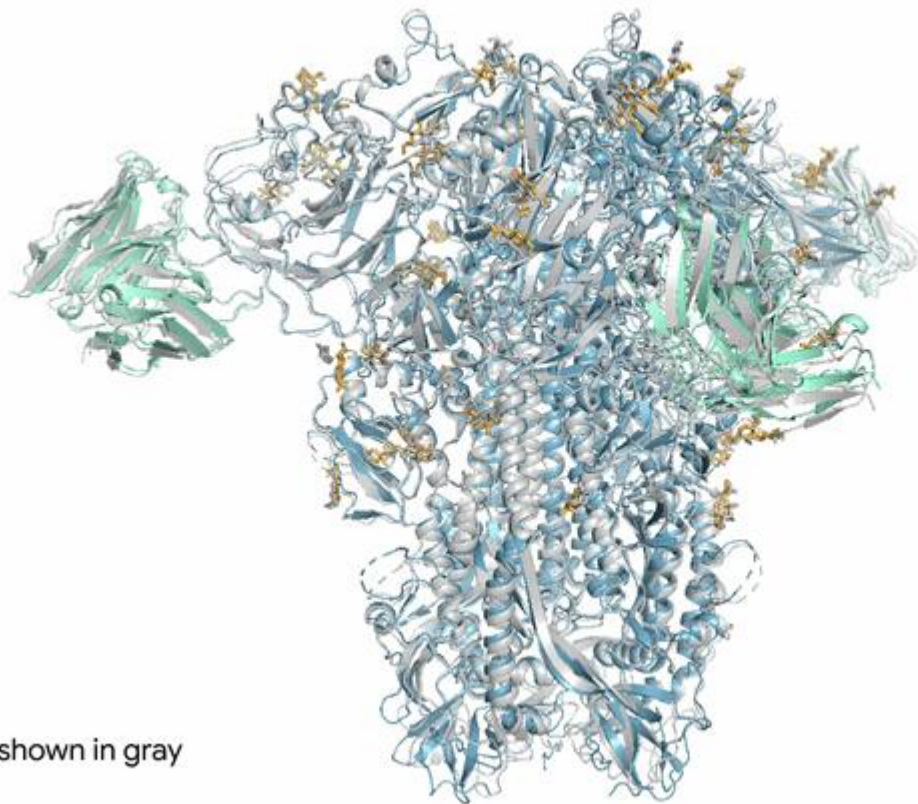
Přínosy a možné zápory A.I.

Vesuvian Challenge



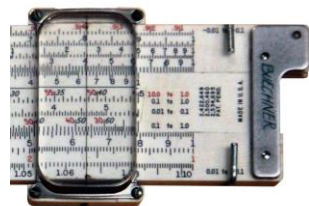
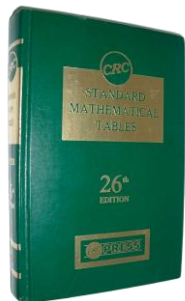
ALPHA FOLD

7PNM



Ground truth shown in gray

BUDEME HLOUPÍ? VZDĚLÁVÁNÍ V DOBĚ AI



NAHRADÍ NÁS AI?



Neuknieme tomu, adoptujme to.

Nové pracovní postupy

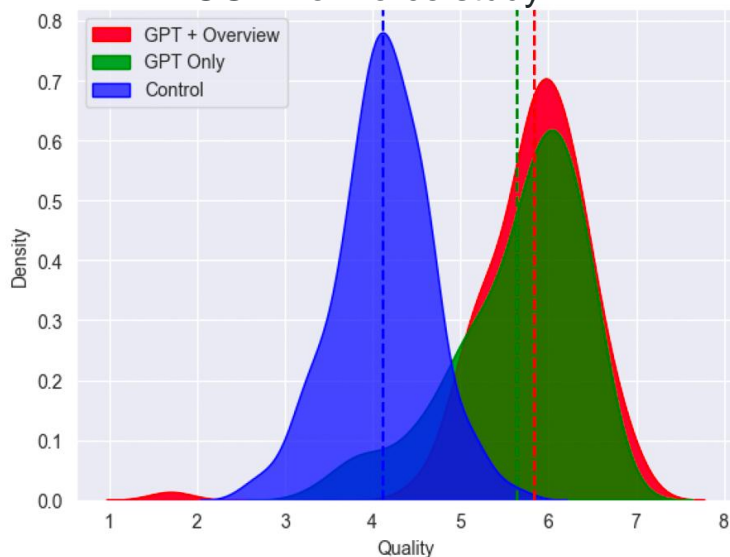
Co lze popsat algoritmem se bude automatizovat

Nové myšlení

Lidi s AI nahradí lidi bez AI

Figure 2: Performance Distribution - Inside the Frontier

BCG - workforce study



Notes: This figure displays the full distribution of performance in the experimental task inside the frontier for subjects in the three experimental groups (red for subjects in the GPT+Overview condition; green for subjects in the GPT Only condition; blue for subjects in the control condition).

Exponential Growth of Information

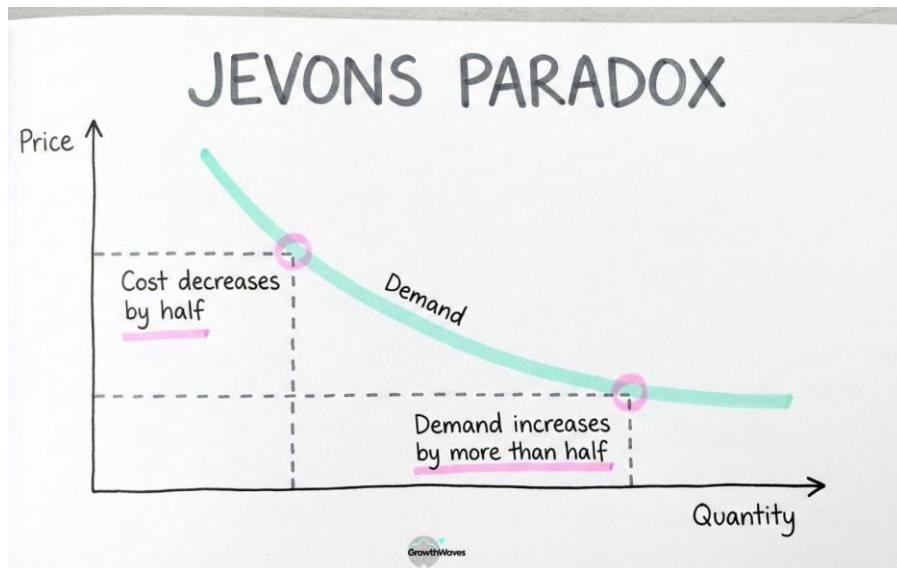
GenAI Can Improve Human Effectiveness	Average time taken decreased by 40% .
	Output quality increased by 18% .
	Pass a simulated bar exam with score in top 10% .
	88% perceived themselves as more productive.
And Make Us Careless ...	96% were faster with repetitive tasks.
	87% reported less mental effort on repetitive tasks.
	Users overlook incorrect information 39% of the time.

Sources: [Experimental Evidence on the Productivity Effects of Generative Artificial Intelligence](#), Science; [Research: Quantifying GitHub Copilot's Impact on Developer Productivity and Happiness](#), GitHub; [GPT-4, OpenAI: Who Answers It Better? An In-Depth Analysis of ChatGPT and Stack Overflow Answers to Software Engineering Questions](#), arXiv

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PŘIJDEME O PRÁCI?

ZEFEKTIVNĚNÍ VEDE K VĚTŠÍ POPTÁVCE



Zamyšlení

ZAMYŠLENÍ

The Evolution of Resource Governance



States exist to manage Earth's resources through people — and protect those resources by people.

Koho sledovat?

Ke sledování

Andrej Karpathy (@karpathy) - ex Tesla AI

Sam Altman (@sama) - Open AI CEO

AI Now Institute (@AINowInstitute) - social implications of AI

Yann LeCun (@ylecun) - AI in Facebook

Fei-Fei Li (@drfeifei) - AI Stanford

Clem Delangue 🤖 (@ClemDelangue) - CEO Hugging Face

K vyzkoušení

<https://chat.openai.com>

<https://claude.ai>

<https://aistudio.google.com/>

- AI chats

<https://notebooklm.google/>

- research partner

<https://huggingface.co/chat/>

- opensource AI

<https://stability.ai/>

- opensource, text, images, video, ..

<https://elevenlabs.io/>

- text to speech

<https://www.soulmachines.com/>

<https://www.heygen.com/>

- text to video/avatars

<https://ejaj.cz/>

- AI Tools Database

Živá ukázka - pokud je čas?

Co si máte odnést



Osvojte si A.I.

Experimentujte s AI, bez porozumění a kontextu
nebudeme schopní adaptace

