



Open Discussion #3

BARCELONA
May 2024

NexComm 2024 & DigitalWorld 2024

Theme: (de)generative AI - The is a Bad Moon on the Rise!

IGNITERS

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Qs

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Items

- a. Ethics on model training
- b. Potential overfitting/underfitting
- c. LLMs mismatching
- d. Dangerous applications and wrongdoers
- e. Scientific work and university lectures facing the rising possibilities and easy access to AI
- f. ...



- **Generative AI meets scientific work & university education**
 - ChatGPT “crashing” into educational system in Nov. 2022
 - Heated discussions and uncertainty at universities
 - Different reactions and measures to react to Generative AI
 - How to change lectures and exams at universities with or without AI?



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SUDDENLY - A PLANETARY STORM

King Charles: AI risks require urgency and unity
King enters debate on AI as UK holds summit and announces global declaration on managing threats

US announces 'strongest action yet' on AI safety
The measures have been issued less than 48 hours before the UK hosts an AI safety summit.

Germany invests millions into AI military metaverse' that could rever change combat

Apple CEO sings AI's praises on rare visit to Capitol Hill

China warns of artificial intelligence risks, calls for increased national security measures

CEO warns of 'very strange outcomes' from new tech with 'superhuman' skills



It only takes one selfie for new tech to decipher your political affiliation



Any technology is good

Its use can be useful or damaging



Cyberattack wipes out crucial DOT highway signs ahead of severe weather

New Spectra: gen-AI, LLMs, ML, Datasets, Enforced Recursive Learning
New Technologies: IoT, Drones, Data-Centers, Cloud, DPU, IPU, 5G/6G, etc.

Good: gen-AI, very good at the secretary level (quicker, overarching): 'great summarization'; it is dependent on input data (coverage, real-time, etc.)

Damaging AI: too many 'experts' regretting fathering AI
too many scarecrows (humanity will disappear, self-deciding robots, killer-robots, etc.)
marketing pressure: hallucinations, unintended consequences, over/under-fitting (too focused, too vague)



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Let us set the record straight (as May 29, 2024)!

Inventions (~1% on purpose, 99% unintended discovery);

On former, I know a very few, indeed!

Basis is: 'understanding' and 'inserting' a new acquired information in the right place of the existing knowledge.

Mostly, **incidental action**, followed by experience, failures, experiments again, improvements, acceptance, improvements, etc.

Let us think at:

- Fire
- Matches
- Tires (cars, bicycles, ...)
- C Vitamin
- Stickers
- Wheels
- Bicycles

-
- Music (i) (mind expression, even silent)
 - Music instruments (ii) (100% invention) for sharing 'interior thinking'
-

<https://www.the-sun.com/tech/9508495/chatgpt-ceo-ai-superhuman-persuasion-skills-strange-outcomes/>
<https://www.foxnews.com/us/chatgpt-chief-warns-superhuman-skills-ai-develop>



AI Scarecrow

Oracle of Delphi

Delphi was an ancient religious sanctuary dedicated to the Greek god Apollo. Developed in the 8th century B.C., the sanctuary was home to the Oracle of Delphi and the priestess Pythia, who was famed throughout the ancient world for divining the future and was consulted before all major undertakings.



CEO warns of 'very strange outcomes' from new tech with 'superhuman' skills

Cutting through the Hype

(towards AI - so-called Literacy!)

- Fathering AI
- AI Experts
- AI Analysis
- AI Ethicists
- AI-based producers
- AI Beneficiary



- AI culture, AI Literacy
- AI skeptics
- AI charlatans

- AI Governments summit
- AI (-self) governance
- AI governance
- Corporate self-guaranty entitlement
- Corporate **self-explainability duty**
(see: [Oracle of Delphi](#))
- Corporate self-safety checking

- True AI Enthusiasts and Supporters
- Professors trying to get various flavors of scientific help in their teaching endeavor: CENTRIC, ICSEA, CYBER, etc.)



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<https://www.foxnews.com/tech/fcc-slaps-att-verizon-t-mobile-with-mega-fines-for-data-deceit>



FCC slaps mobile carriers with mega fines for data deceit



Facebook's massive data breach



FCC slaps AT&T, Verizon and T-Mobile with mega fines for data deceit



AT&T: With a fine exceeding \$57 million, AT&T faces significant repercussions.

Verizon: The carrier was fined \$46 million, signaling Verizon's alleged involvement in the data breach.

FCC imposes \$200 million fine on mobile carriers for location data breach

Contact your carrier: If you have concerns about how your data is being handled, contact your carrier directly to express your concerns and request more information about their data protection measures.

Stay proactive: Regularly update your device's security settings and stay proactive about protecting your personal information.



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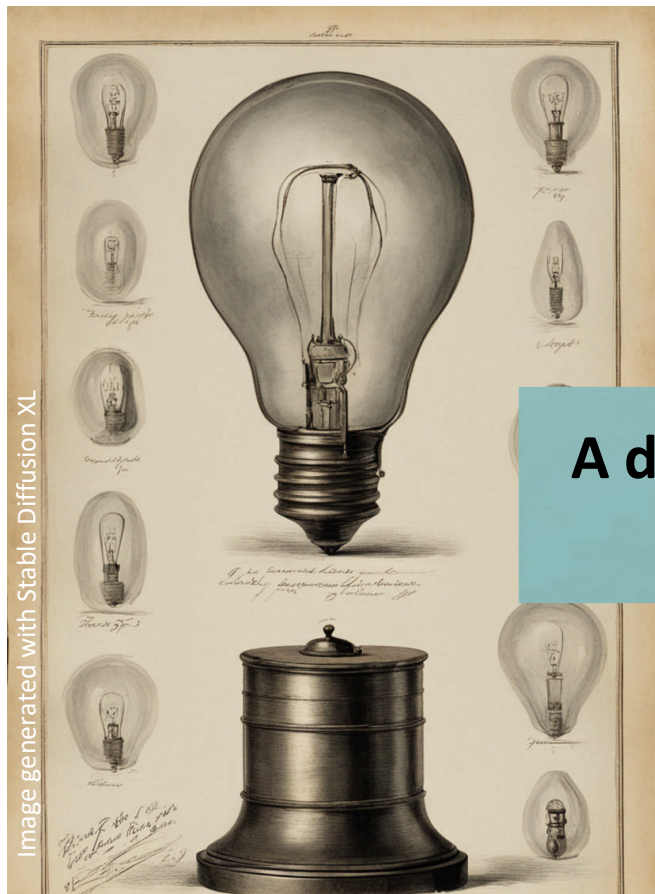


Image generated with Stable Diffusion XL



Image generated with Stable Diffusion XL

**A digital-divide perspective on
generative AI**

**AI as the new electricity
(Andrew Ng)**

**Issues of access, literacy
and outcomes**



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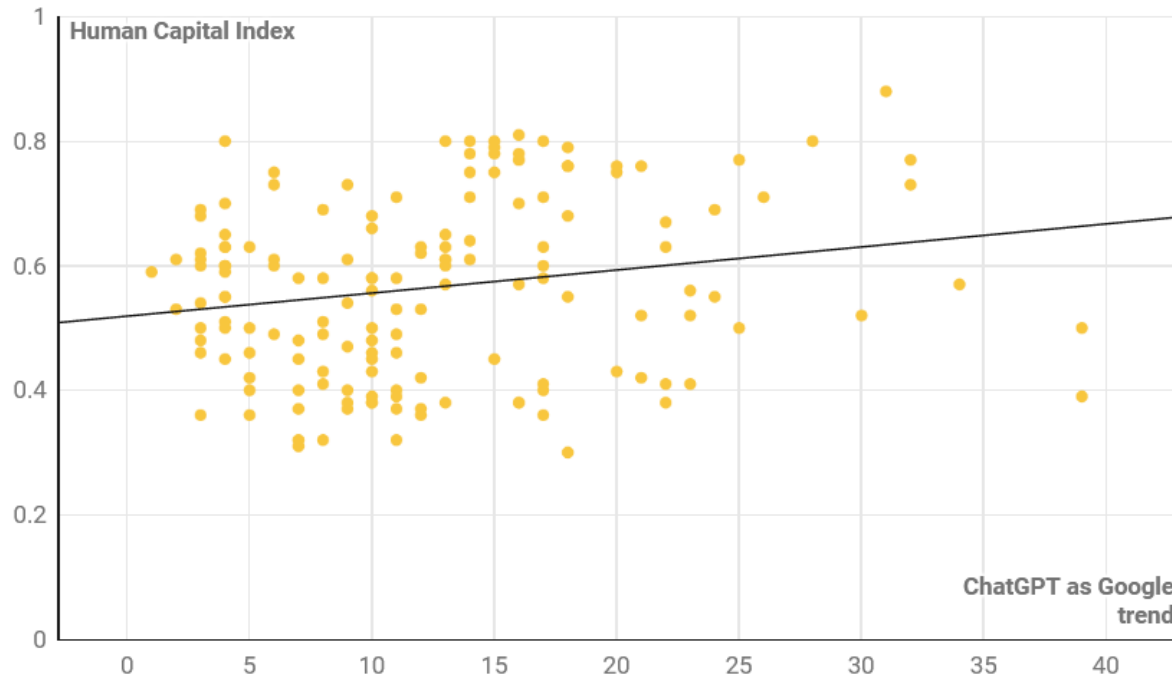
The AI divide as a “bad moon rising”:

- **Marginalisation of workers** lacking AI skills (Carter et al. 2020; Morandini et al. 2023: ~375 million people / ~14% of the global workforce, may need to transition to new occupations due to the integration of AI technologies).
- **Increased risks** of manipulation and privacy violations (Wang et al., 2024).
- **Widening of existing inequalities** at individual, institutional and global levels (Kitsara, 2022).
 - There is an observable relationship between AI literacy and **socio-economic factors** such as education levels (Wang et al., 2024).
 - Efe (2022) highlights concerns about **biases** in generative AI, particularly those related to gender and ethnicity.
 - Disadvantages for **SMEs and public institutions** in AI: limited access to proprietary, high-cost data and competitive disadvantage against large companies with privileged data to effectively develop and use AI technologies (Kitsara 2022).
 - Pahl (2023) identifies a positive correlation between (existing) **human capital at the national level** and trends in searches related to ChatGPT.



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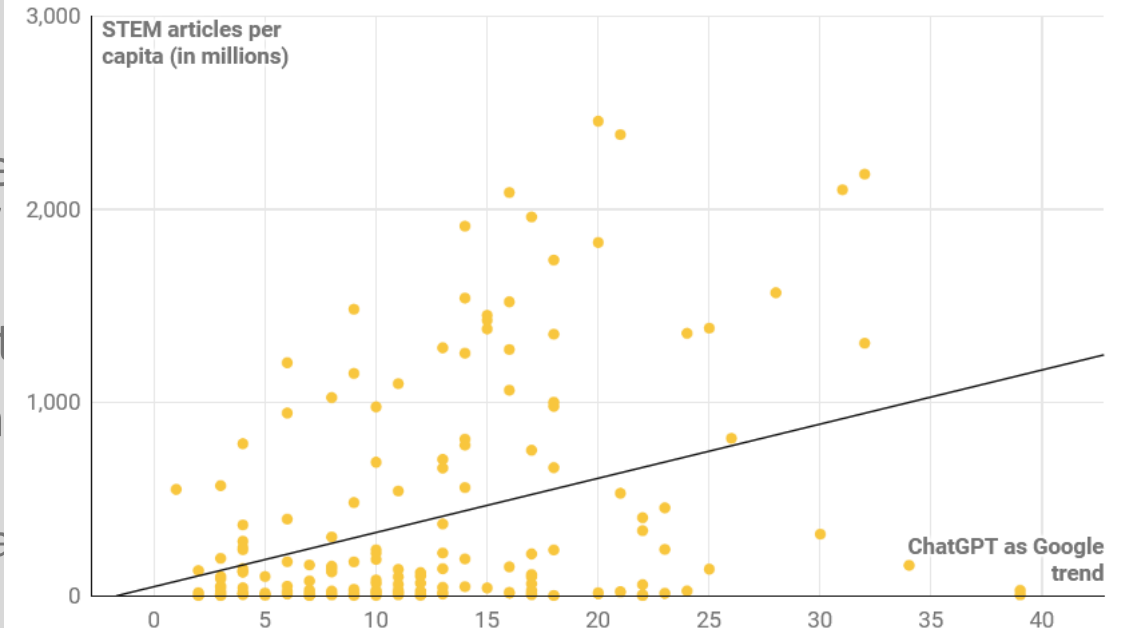
Positive correlation between human capital and ChatGPT search trends



Created with [Datawrapper](#)

Note: Google Trends as of 26 January. The higher the score, the higher the popularity of the term "ChatGPT" in that location (compared to all other search terms in that location). The scores are normalized across locations by Google.
Source: [Google Trends](#) and World Bank.

Positive correlation between STEM articles per capita and ChatGPT search trends



Created with [Datawrapper](#)

Note: Google Trends as of 26 January. The higher the score, the higher the popularity of the term "ChatGPT" in that location (compared to all other search terms in that location). The scores are normalized across locations by Google.
Source: [Google Trends](#) and World Bank.

- Pahl (2023) identifies a positive correlation between (existing) human capital at the trends in searches related to ChatGPT.
Image source: Pahl (2023)



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“AI may change the world we live in—but it is the ethics behind it which will determine the way the world will look like.”

(Gabriela Ramos, UNESCO, cited in Kitsara 2022, p. 265)



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=> The AI divide is also a good starting point to think about ethically viable generative AI!



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Wach, K., Duong, C. D., Ejdys, J., Kazlauskaitė, R., Korzynski, P., Mazurek, G., Paliszkiwicz, J., & Ziemba, E. (2023). The dark side of generative artificial intelligence: A critical analysis of controversies and risks of ChatGPT. *Entrepreneurial Business and Economics Review*, 11(2), 7–30.

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