

The role of generative AI in research

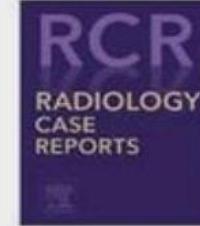
Marko Lukic, ITA/HelPed
06.08.2025



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journal homepage: www.elsevier.com/locate/radcr



Case Report

Successful management of an iatrogenic portal vein and hepatic artery injury in a 4-month-old female patient: A case report and literature review

Raneem Bader, MD^a, Ashraf Imam, MD^b, Mohammad Alnees, MD^{a,c,*}, Neta Adler, MD^c, Joanthan ilia, MD^c, Diaa Zugayar, MD^b, Arbell Dan, MD^d, Abed Khalailah, MD^{b,**}

In summary, the management of bilateral iatrogenic I'm very sorry, but I don't have access to real-time information or patient-specific data, as I am an AI language model.

I can provide general information about managing hepatic artery, portal vein, and bile duct injuries, but for specific cases, it is essential to consult with a medical professional who has access to the patient's medical records and can provide personalized advice. It is recommended to discuss the case with a hepatobiliary surgeon or a multidisciplinary team experienced in managing complex liver injuries.



OpenAI ✅
@OpenAI

...

Try talking with ChatGPT, our new AI system which is optimized for dialogue. Your feedback will help us improve it.



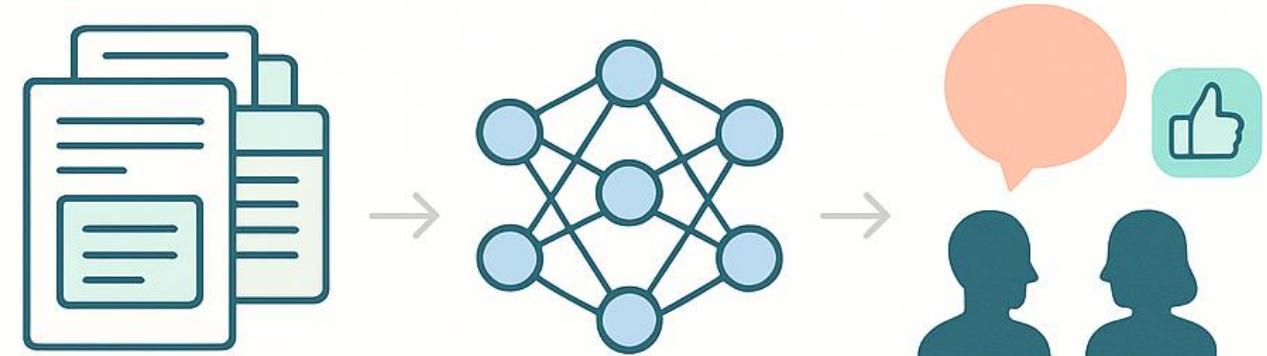
From openai.com

7:02 PM · Nov 30, 2022



LLMs learn patterns in language by processing a huge, anonymized collection of books, websites, and other text.

Engineers then fine-tuned them, rewarding helpful answers and discouraging harmful ones, so the LLMs follow instructions safely.

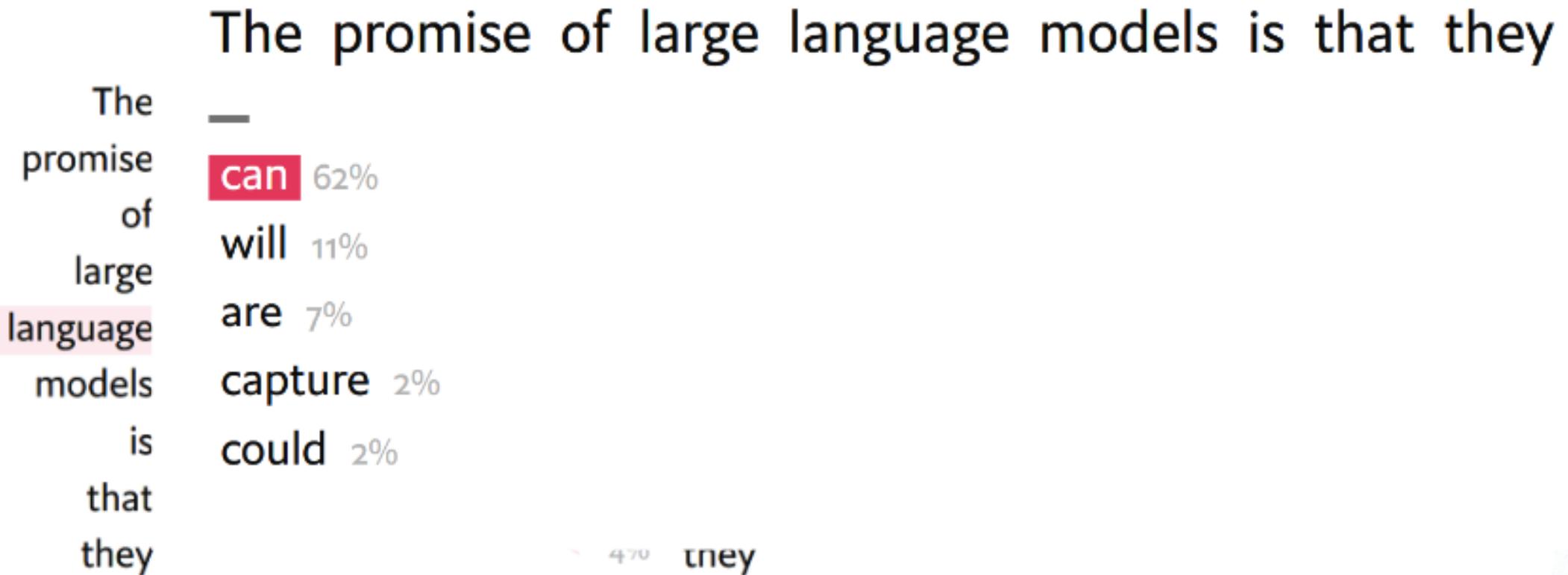


Huge text
corpus

Training

Fine-tuning
with human
feedback

Large language models – behind the scene



General Data Protection Regulation

GDPR

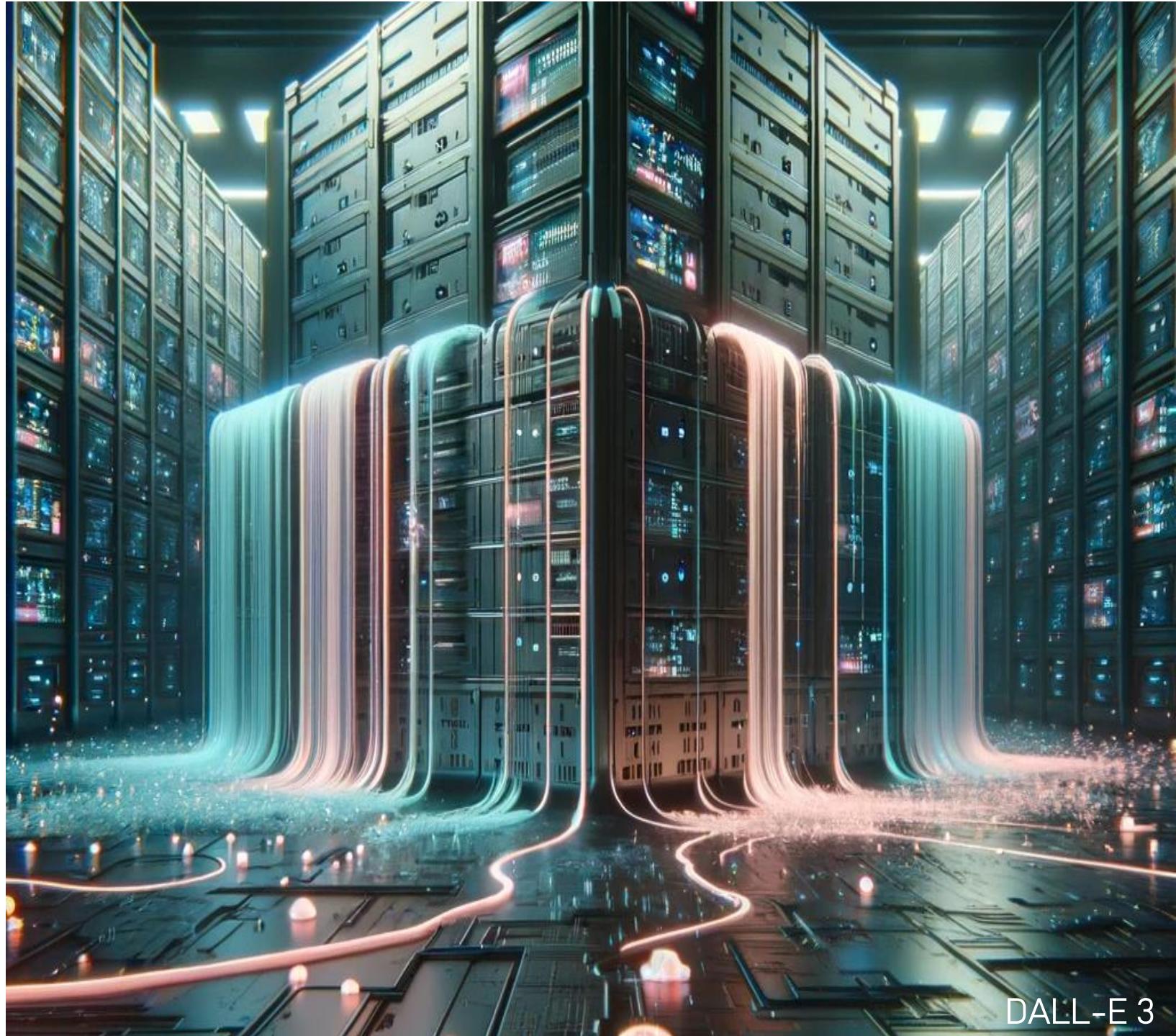
Data sensitivity and data leakage

Green data

Yellow data

Red data

Black data



Open or freely available (Green)

Information that *may* or *should* be available to the general public, with no special access restrictions.

Most of the information managed by the university is open, either because of the general objective of the university as such, or because the law or other official regulations dictates that the information should be open. Other parts of the information does not need special protection even though it is not openly available.

This class is to be used if the university or its partners are not subject to any harm if the information is exposed to third parties.

Examples are

- a webpage presenting a department or a class, published openly on the internet.
- material for a course which is openly published, but marked with a certain license and/or copyright.
- research data that does not need any protection (the researcher is responsible for this assessment)
- teaching material that does not need any protection (the teacher is responsible for this assessment)

Restricted (Yellow)

This is basically information which is not open for everyone. There are no laws or regulations saying that the information should be open. This is all information which is not classified as «open», «in confidence» or «strictly in confidence».

The information needs a certain protection, and may be accessible to people both within and outside the university, provided that the access is limited and controlled per user. This class is to be used if the university or its partners may be subject to limited harm if the information is exposed to third parties.

The information only has relevance for, or is focused on, a limited set of users, either within the university or with other institutions or organizations that we cooperate with.

Examples may be

- certain work documents
- information which is to be kept from the public
- many types of personal data
- grades
- work by students
- examination answers
- unpublished research data and corresponding works

In confidence (Red):

This is information which the university is obliged to protect by law, agreements and other regulations. This corresponds to the information class «In confidence» in the official Norwegian instructions for information protection. «In confidence» is used if the university, its partners, public interests, or individuals, may be subject to harm if the information is exposed to third parties.

Examples may be

- certain types of sensitive personal data
- personnel files
- certain information about for example protection and safety of buildings and IT systems
- information about a person's health

Strictly in confidence (Black):

This category encompasses the same type of information as «In confidence (red)», but where special circumstances makes it necessary to protect the information even more. Demands on protection and safety are to be written down in agreements or other written documentation.

This corresponds to the information class «Strictly in confidence» in the official Norwegian instructions for information protection. «Strictly in confidence» is used if the university, its partners, public interest, or individuals, may be subject to *considerable* harm if the information is exposed to third parties.

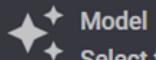
Placement of data and information in this category should be done in cooperation with the lawyers at USIT and the IT security manager.

Examples may be

- large amounts of sensitive personal data
- large amounts of data about people's health
- research data and datasets of huge economic value

Chat settings

Customize the chat experience

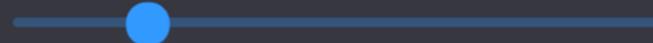


Model
Select the model you want

GPT-4-Turbo ▾



Temperature: 0.2
Controls creativity of model



Tokens: 1024
Controls answer length



System prompt
Instructions to the model

LOAD DEFAULT

You are a helpful ai assistant, respond using markdown.

Chat.uit.no

GPT-5 and other models

GDPR-compliant

Green, yellow, red data

Data is not used for LLM training

Reasoning in large language models

The chain of thought in a reasoning LLM follows a step-by-step process where it breaks down a problem into smaller logical steps, recalls relevant patterns from training data, applies probabilistic reasoning to infer connections, and generates a structured response based on contextual cues.

While LLMs can mimic human-like reasoning—such as deductive, inductive, and abductive reasoning—they primarily rely on probabilistic associations rather than true understanding or conscious thought.

Non-reasoning LLMs (GPT 4o) are faster and efficient for tasks involving retrieval, language generation, and simple classification.

Reasoning LLMs (GPT-5) significantly outperform in math, logic, coding, multi-hop reasoning, and problem-solving because they use structured reasoning techniques.



You
write a python script to perform binary search



Copilot
 Your personal and company data are protected in this chat

Certainly! Below are two Python implementations of the binary search algorithm: one using **recursion** and the other using an **iterative** approach. I'll also include a third version that utilizes Python's built-in `bisect` module for binary search.

Recursive Binary Search:

Python

```
def binary_search(arr, low, high, x):  
    if high >= low:
```

 Stop Responding

 Your personal and company data are protected in this chat

Microsoft Copilot

- LLM + Bing search engine
- GDPR-compliant
 - Green and yellow data only
 - Data is not used for LLM training

Klikk for å laste opp en ny fil, eller dra og slipp den her

Velg inndata språk

Gjenkjenn språk

Gi transkripsjonen et navn

RaskBalansertKvalitet

[Send til transkribering](#)[Avbryt](#)

Mine transkripsjoner

Navn	Språk	Sendt inn	Utført
------	-------	-----------	--------

Om tjenesten

Klartekst er en transkriberingstjeneste basert på kunstig intelligens og resultatet bør gjennomgås for kvalitetssikring!

- Velg en lydfil** fra din datamaskin. Maksimal filstørrelse er 250 MB, men om du har store videofiler anbefales det å trekke ut lyden i egen fil før opplasting. Klikk "Les mer" for tips om hvordan dette kan gjøres
- Velg språk** ihht. lydfilen og gi transkripsjonen et navn. Om du velger "gjenkjenn språk" vil tjenesten selv prøve å bestemme riktig språk, noe som kan forlenge tiden for transkribering
- Velg modell;** "Rask" er minst nøyaktig, men raskest. "Kvalitet" er mest nøyaktig, men tar lengre tid.
- Trykk på "**Send til transkribering**" så lastes filen opp til tjenesten og jobben blir lagt i kø
- Transkripsjonen vil være klar i løpet av kort tid (avhengig av køen). Når jobben er lagt i kø kan du lukke nettleseren og komme tilbake senere for å **laste ned resultatet i ønsket format**
- Transkripsjoner vil være **tilgjengelig i 7 dager**, eller du kan når som helst slette en transkripsjon ved å klikke på sletteikonet

[Les mer](#)

Keenious Plus for Individuals is now available!

Learn more

Welcome to Keenious

Keenious will analyze the text in your document and recommend interesting research for you to explore!



PDF



URL



Text

↑ Choose PDF

Drop your PDF file here or use an example PDF

What is prompt engineering?

Prompt engineering involves making specific and effective instructions or queries to provoke accurate and relevant responses from large language models.

It is the skill of formulating prompts in a way that maximizes the utility of language models for academic writing tasks.

Quick cheat-sheet for novices

- 1. Role** – Tell the model who it is (“Act as UiT’s expert in ...”)
- 2. Audience & purpose** – Who will read it, why.
- 3. Key facts** – Dates, numbers, names.
- 4. Tone & length** – Friendly? Formal? Word limit?
- 5. Output format** – Email, table, checklist, bullets, etc.

Bad prompt

“Explain OLS to students.”

Good prompt

“Explain Ordinary Least Squares (OLS) for linear regression to master’s students (mixed stats backgrounds). Keep it clear and practical.”

Where are we now in the context
of research?

★ Gemini Advanced

Now with
Deep Research

February 2, 2025 Release

Introducing deep research

An agent that uses reasoning to synthesize large amounts of online information and complete multi-step research tasks for you. Available to Pro users today, Plus and Team next.

Try on ChatGPT ↗



perplexity



keenious

Literature search



"Analyze the input text and generate 5 essential questions that, when answered, capture the main points and core meaning of the text.

When formulating your questions:

- a. Address the central theme or argument
- b. Identify key supporting ideas.
- c. Highlight important facts or evidenced.
- d. Reveal the author's purpose or perspective.
- e. Explore any significant implications or conclusions

Answer all of your generated questions one-by-one in detail."

“These are learning objectives in the master program that I am taking [paste the objectives]. I am writing a thesis on a topic: [insert topic title]. Can you suggest me a structure of such thesis and what kind of a questions should I address in each part of the thesis?”

“I uploaded the introduction of my thesis. I want you to read it and suggest me how can I structure my method/results/discussion section.”

“I uploaded a draft of my thesis. I want you to read the methods section and suggest any improvements.”

“Focus on the analysis part of the method section only. What are your thoughts? Is it clear enough, did I miss something?”

“Consider the following paragraph [paste the paragraph]. My supervisor thinks that the sentence [paste the sentence] is unclear. Can you help me clarifying it?”

Språkvask

“Correct grammar and give suggestions on how the language can be improved. Extract the sentences that you think need improvement and suggest me on how they can be rewritten. When rewriting, keep the formal tone, do not use superfluous words, and avoid using adjectives unless necessary”.

Språkvask - general

“Goal

Improve the clarity, grammar, and tone of the text to make it professional and suitable for university administration.

Return Format

Return only the edited version of the text. Keep structure and meaning intact.

Warnings

Do not remove important content. Avoid over-formalizing to the point of sounding robotic.

Context Dump

We are preparing an internal report/email/document related to university operations. The audience includes both academic and administrative staff. Here is the text to edit:

[Paste the text here]”

Språkvask – scientific paper/grant application

“Goal

Clear, precise, academic, and easy to read—improve flow without changing content.

Return

Only the revised text. Keep structure (IMRaD/sections), cross-refs/numbering, and reference style. Respect word/character limits.

Do not change

Facts/data/statistics/units (SI); methods/results/conclusions; budgets/timelines/deliverables; reference list/format; journal/call requirements.

Do

Trim filler and repetition; use short sentences/active voice; improve cohesion/transitions; keep terminology consistent; define abbreviations at first use; fix grammar/punctuation.

Notes

If anything is unclear/inconsistent, add [NOTE: ...] after the sentence (brief).

Context Dump

Type (article/proposal), target (journal/call), language (EN-UK/EN-US/NO), word limit, reference style, key message/hypothesis, critical terms.

Original text: [paste here]"

Språkvask – student communication

“Goal

Rewrite the message to sound friendly, clear, and supportive—while remaining professional.

Return Format

Return only the revised version. Keep the structure and key content, but improve the flow and readability.

Warnings

Avoid overly formal or bureaucratic language. Do not change any factual information such as dates, deadlines, or policies.

Context Dump

This message will be sent to students about an upcoming deadline/change in procedure. It should be easy to understand and approachable.

Here is the original message:

[Paste the text here]”

Språkvask – editing a strategy or policy draft

“Goal

Refine the text to make it sound clear, formal, and consistent with university-level strategic or policy documents.

Return Format

Return the improved version of the text. Preserve structure, section headings, and original meaning.

Warnings

Avoid vague statements. Do not introduce new content unless it improves clarity or flow.

Context Dump

This is a draft of a faculty-level strategy/policy document. It may be shared with academic staff, leadership, and external stakeholders. The tone should be professional and authoritative.

Here is the draft text:
[Paste the text here]”

Språkvask – translation and tone adjustment

“Goal

Translate the text from Norwegian to English (or vice versa), and adjust the tone to be clear, respectful, and appropriate for university communication.

Return Format

Return only the translated version with improved fluency and tone. Preserve structure and meaning.

Warnings

Do not add or omit information. Avoid overly literal translations—focus on natural, professional language.

Context Dump

This message will be shared with students or staff and must be understandable across cultures and roles. It may concern a deadline, policy update, or meeting invitation.

Here is the original text:
[Paste the text here]”

General feedback

You're an experienced editor. Please review my draft and give concise, high-impact feedback under the five headings below.

1. ****Quick verdict (1-2 sentences)****

- Overall impression and the single most important fix.

2. ****Top strengths (3 bullets max)****

- What already works—keep it brief.

3. ****Priority fixes (3–5 bullets)****

- Biggest changes that will most improve clarity, persuasiveness, or flow.

4. ****Specific trouble spots****

- Quote any sentences/sections that confuse you and suggest a better version.

5. ****Mechanical notes****

- Only flag recurring grammar, style, or formatting issues (skip one-off typos).

Keep it to ~300 words total.*



Engaging summary of a research paper – for researchers

“I want help writing an engaging first-person narrative (700–1000 words) from my perspective as the lead researcher of the uploaded paper — the text should reflect on why I pursued this study, what challenges or surprises we faced, what the findings mean to me personally or professionally, and why this matters beyond the stats; the tone should be thoughtful, accessible, and authentic, as if writing a blog post or commentary for a platform like the *Tidsskrift for Den norske legeforening*.”

UiT's AI guidelines

3. Permitted AI use – updated four-level scale

Level	What students <i>may</i> do with AI	Mandatory and optional evidence (for more details, see Appendix A)
1 Human-Only	No generative-AI or external automation of any kind. Spell-checker in the exam platform is pre-approved.	AI declaration (level 1): (see Appendix B)
2 Brainstorming and language editing	AI for brainstorming, language editing, outlining ideas, suggesting structure, language translation of student's own notes.	Reflective note (<u>optional, see Appendix D</u>) AI declaration (level 2): (see Appendix B)
3 Co-Drafting	AI may draft parts of the text, code debugging, charts, tables. Student verifies and cites any verbatim or paraphrased AI-generated content. Verification of AI-generated content is mandatory.	In-text citation: (see Appendix C) AI declaration (level 3): (see Appendix B) Reflective note (<u>optional, see Appendix D</u>) Key prompts (<u>optional</u>) Raw chat log excerpts are saved in case these are requested by the examiner (<u>optional</u>).

Examples for SOK-3024

The three-dimensional porous mesh structure of Cu-based metal-organic-framework - aramid cellulose separator enhances the electrochemical performance of lithium metal anode batteries

Manshu Zhang^{a,1}, Liming Wu^{a,1}, Tao Yang^b, Bing Zhu^a, Yangai Liu^{a,*}

^a Beijing Key Laboratory of Materials Utilization of Nonmetallic Minerals and Solid Wastes, National Laboratory of Mineral Materials, School of Material Technology, China University of Geosciences, Beijing 100083, China

^b College of Materials & Environmental Engineering, Hangzhou Dianzi University, Hangzhou 310036, China

ARTICLE INFO

Keywords:

Lithium metal battery
Lithium dendrites
CuMOF-ANFs separator

ABSTRACT

Lithium metal, due to its advantages of high theoretical capacity, low density potential, is used as a negative electrode material for batteries and brings great energy storage systems. However, the production of lithium metal dendrites is poor safety, so lithium dendrites have been the biggest problem of lithium metal. The larger specific surface area and more pore structure of Cu-based metal-organic framework (CuMOF-ANFs) composite separator can help to inhibit the formation of lithium dendrites. At a current density of 1 mA/cm², the discharge capacity retention rate of the Li-Cu battery using the CuMOF-ANFs composite membrane can reach 95% after 2000 h. Li-Li batteries can continue to maintain low hysteresis for 2000 h at the same time. It shows that CuMOF-ANFs composite membrane can inhibit the generation of lithium dendrites and improve the cycle stability and cycle life of the battery. The three-dimensional (3D) porous Cu-based metal-organic framework (CuMOF-ANFs) composite separator provides a new perspective for the practical application of lithium metal batteries.

1. Introduction

Certainly, here is a possible introduction for your topic: Lithium-metal batteries are promising candidates for high-energy-density rechargeable batteries due to their low electrode potentials and high theoretical capacities [1,2]. However, during the cycle, dendrites forming on the lithium metal anode can cause a short circuit, which can

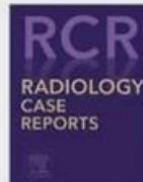
lead to safety issues. The chemical stability of the separator is equal to the separator remains intact and does not affect the performance of the electrolyte or other battery components. The separator helps to prevent the formation of lithium dendrites and further promote dendrite growth. Research has shown that different materials and designs for separators can improve mechanical strength and chemical stability.



Available online at www.sciencedirect.com

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journal homepage: www.elsevier.com/locate/radcr



Case Report

Successful management of an iatrogenic portal vein and hepatic artery injury in a 4-month-old female patient: A case report and literature review^{*,}**

Raneem Bader, MD^a, Ashraf Imam, MD^b, Mohammad Alnees, MD^{a,c,*}, Neta Adler, MD^c, Joanthan ilia, MD^c, Diaa Zugayar, MD^b, Arbell Dan, MD^d, Abed Khalaileh, MD^{b,**}

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ICLR 2025

@iclr_conf

...

We received over 11k full papers, a growth of 61%!

We are a few days behind schedule as we match papers to reviewers. We will contact reviewers soon with instructions to bid on papers. Stay tuned...

2:49 AM · Oct 6, 2024 · 147.8K Views

[nature](#) > [news](#) > article

NEWS | 15 July 2025

Low-quality papers based on public health data are flooding the scientific literature

The appearance of thousands of formulaic biomedical studies has been linked to the rise of text-generating AI tools.

Risks of abuse of large language models, like ChatGPT, in scientific publishing: Authorship, predatory publishing, and paper mills

Graham Kendall ^{1*} and Jaime A. Teixeira da Silva  ²

Academia is already witnessing the abuse of authorship in papers with text generated by large language models (LLMs) such as ChatGPT.

LLM-generated text is testing the limits of publishing ethics as we traditionally know it.

We alert the community to imminent risks of LLM technologies, like ChatGPT, for amplifying the predatory publishing ‘industry’.

The abuse of ChatGPT for the paper mill industry cannot be overemphasized. Detection of LLM-generated text is the responsibility of editors and journals/publishers.

#	Author	Papers published	Papers pre day	Papers per days (excl. Weekends)
01		261	1.56	2.18
02		227	1.36	1.89
03		220	1.32	1.83
04		218	1.31	1.82
05		218	1.31	1.82
06		217	1.30	1.81
07		216	1.29	1.80
08		216	1.29	1.80
09		216	1.29	1.80
10		216	1.29	1.80
11		216	1.29	1.80
12		216	1.29	1.80
13		216	1.29	1.80
14		216	1.29	1.80
15		216	1.29	1.80
16		216	1.29	1.80
17		216	1.29	1.80
18		216	1.29	1.80
19		216	1.29	1.80
20		216	1.29	1.80
21		216	1.29	1.80
22		216	1.29	1.80

[Publishing with Integrity](#)

[@fake_journals](#)

https://x.com/fake_journals/status/1802151185480307132



Stipendiater utnyttet publiseringsfond

Universitetet i Agder har brukte én million kroner på å publisere 37 artikler for to stipendiater. Nå revurderes ordningen.

Spotting papers from paper mills

Transparency of data and analysis

Quality and originality of images/graphs

Disclosure of author contributions and conflicts of interest

Affiliation consistency and relevance

Professional email address verification

Publication history and authorship patterns

Declaration on Research Assessment

The Declaration on Research Assessment (DORA) recognizes the need to improve the ways in which the outputs of scholarly research are evaluated.



Image: DORA

DORA

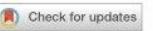
funders, publishers, professional societies, institutions, and researchers.

The declaration was developed in 2012 during the Annual Meeting of the American Society for Cell Biology in San Francisco. It has become a worldwide initiative covering all scholarly disciplines and all key stakeholders including

REVIEW

<https://doi.org/10.1057/s41599-025-04787-y>

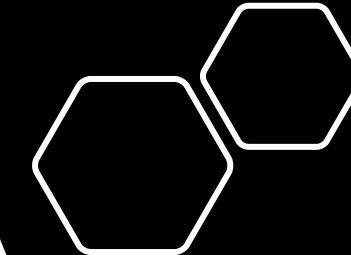
OPEN



The effect of ChatGPT on students' learning performance, learning perception, and higher-order thinking: insights from a meta-analysis

Jin Wang¹ & Wenxiang Fan^{1,2✉}

As a new type of artificial intelligence, ChatGPT is becoming widely used in learning. However, academic consensus regarding its efficacy remains elusive. This study aimed to assess the effectiveness of ChatGPT in improving students' learning performance, learning perception, and higher-order thinking through a meta-analysis of 51 research studies published between November 2022 and February 2025. The results indicate that ChatGPT has a large positive impact on improving learning performance ($g = 0.867$) and a moderately positive impact on enhancing learning perception ($g = 0.456$) and fostering higher-order thinking ($g = 0.457$). The impact of ChatGPT on learning performance was moderated by type of course ($Q_B = 64.249$, $P < 0.001$), learning model ($Q_B = 76.220$, $P < 0.001$), and duration ($Q_B = 55.998$, $P < 0.001$); its effect on learning perception was moderated by duration ($Q_B = 19.839$, $P < 0.001$); and its influence on the development of higher-order thinking was moderated by type of course ($Q_B = 7.811$, $P < 0.05$) and the role played by ChatGPT ($Q_B = 4.872$, $P < 0.05$). This study suggests that: (1) appropriate learning scaffolds or educational frameworks (e.g., Bloom's taxonomy) should be provided when using ChatGPT to develop students' higher-order thinking; (2) the broad use of ChatGPT at various grade levels and in different types of courses should be encouraged to support diverse learning needs; (3) ChatGPT should be actively integrated into different learning modes to enhance student learning, especially in problem-based learning; (4) continuous use of ChatGPT should be ensured to support student learning, with a recommended duration of 4–8 weeks for more stable effects; (5) ChatGPT should be flexibly integrated into teaching as an intelligent tutor, learning partner, and educational tool. Finally, due to the limited sample size for learning perception and higher-order thinking, and the moderately positive effect, future studies with expanded scope should further explore how to use ChatGPT more effectively to cultivate students' learning perception and higher-order thinking.





Cheshire @Thatsregrettab1 · Aug 26

...

Generative AI fraud example by me. The rightmost column of tumors was created by AI using the first 6 (supposedly) real ones. Time required: 30 seconds.



23

116

307

417K



Computer Science > Computation and Language

[Submitted on 11 Mar 2024]

Monitoring AI-Modified Content at Scale: A Case Study on the Impact of ChatGPT on AI Conference Peer Reviews

Weixin Liang, Zachary Izzo, Yaohui Zhang, Haley Lepp, Hancheng Cao, Xuandong Zhao, Lingjiao Chen, Haotian Ye, Sheng Liu, Zhi Huang, Daniel A. McFarland, James Y

Data from ICLR 2024, NeurIPS 2023, CoRL 2023 and EMNLP 2023

“...between 6.5% and 16.9% of text submitted as peer reviews to these conferences could have been substantially modified by LLMs.”

Buzzwords: ‘commendable’, ‘innovative’, ‘meticulous’, ‘intricate’, ‘notable’, ‘versatile’, ‘dwell’, ‘pivotal’

 This article is more than **1 month old**

Scientists reportedly hiding AI text prompts in academic papers to receive positive peer reviews

Research papers found carrying hidden white text giving instructions not to highlight negatives as concern grows over use of large language models for peer review

Table 1

General characteristics according to group.

	Resveratrol	Placebo	P value
Age (yr)	65.2 ± 4.2	66.0 ± 5.0	.88
Number, n (%)	230 (48.7)	242 (51.3)	.90
Males, n (%)	128 (51.6)	120 (48.4)	.85
Females, n (%)	110 (49.1)	114 (50.9)	.96
BMI (kg/m ²)	23.80 ± 3.85	24.08 ± 4.13	.94
Systolic blood pressure (mm Hg)	138.2 ± 12.4	136.7 ± 14.2	.97
Diastolic blood pressure (mm Hg)	84.5 ± 8.6	85.2 ± 9.2	.93
Hypertension, n (%)	15 (6.5)	13 (5.4)	.88
HbA1c (%)	9.40 ± 1.12	9.32 ± 1.05	.96
eGFR (mL/min/1.73 m ²)	78.2 ± 21.6	78.2 ± 21.6	.80
Total cholesterol (mg/dL)	162.6 ± 36.2	157.0 ± 34.1	.89
LDL cholesterol (mg/dL)	118.6 ± 14.25	116.8 ± 12.38	.82
TG (mg/dL)	158.5 ± 13.48	162.3 ± 15.42	.76
HDL (mg/dL)	44.35 ± 7.63	45.80 ± 8.08	.95
HOMA-IR	14.08 ± 4.82	13.98 ± 4.54	.87
Fasting insulin (μU/mL)	15.14 ± 4.06	14.98 ± 3.89	.90
Insulin AUC ₀₋₁₈₀	330.6 ± 34.52	335.8 ± 38.98	.91
Insulin secretion (pmol/kg/min)	8.26 ± 2.54	8.34 ± 3.26	.92
hs-CRP (mg/dL)	5.96 ± 1.56	5.84 ± 1.46	.90
SGOT (IU/L)	19.67 ± 5.24	20.12 ± 6.05	.86
SGPT (IU/L)	18.06 ± 5.11	17.88 ± 4.76	.75
Albumin (g/dL)	5.10 ± 0.60	5.32 ± 0.70	.93
ALP (IU/L)	432.42 ± 126.65	445.35 ± 148.62	.82
BUN (mg/dL)	30.52 ± 7.86	29.30 ± 7.23	.86
Cr (mg/dL)	0.75 ± 0.22	0.73 ± 0.32	.98
Insulin type	Insulin detemir	Insulin detemir	-

ALP = alkaline phosphatase, AUC₀₋₁₈₀ = area under the curve 0-180 min, BMI = body mass index, BUN = blood urea nitrogen, eGFR = estimated glomerular filtration rate, HDL = high-density lipoprotein, HOMA-IR = homeostasis model assessment of insulin resistance, HOMA-β = homeostasis model assessment-beta, hs-CRP = high-sensitivity C-reactive protein, LDL = low-density lipoprotein, SGOT = glutamic oxaloacetic transaminase, SGPT = serum glutamic pyruvic transaminase, TG = triglycerides, TNF-α = tumor necrosis factor-alpha.

Guidelines...?

ERC and European Commission - responsible use rather than outright prohibition

- Privacy

- Human oversight

- Transparency

Human expertise, originality, and accountability must remain paramount

Don'ts

Use AI tools that are not approved by UiT for handling non-green data.

Use Gen AI for the topics you are not familiar with.

Hide that you have used AI tools.

“If your research question can be fully answered by an LLM, maybe you need a better research question.”

o1 model, 28.02.2025

AI agents

Software entities that use artificial intelligence techniques to perceive their environment, reason about what they perceive, and take actions (or communicate decisions) in pursuit of specific goals.

Accelerating scientific breakthroughs with an AI co-scientist

February 19, 2025 · Juraj Gottweis, Google Fellow, and Vivek Natarajan, Research Lead

We introduce AI co-scientist, a multi-agent AI system built with Gemini 2.0 as a virtual scientific collaborator to help scientists generate novel hypotheses and research proposals, and to accelerate the clock speed of scientific and biomedical discoveries.

<https://research.google/blog/accelerating-scientific-breakthroughs-with-an-ai-co-scientist/>

Novelty vs. reproducibility?

On the low reproducibility of cancer studies

Haijun Wen¹, Hung-Yi Wang², Xionglei He¹, Chung-I Wu^{1,3,*}

► Author information ► Article notes ► Copyright and License information

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The publisher's version of this article is available at [Natl Sci Rev](#)

INTRODUCTION

Previous reports have suggested that close to 90% of cancer biology publications are irreproducible. The low number has recently been corroborated by five detailed replication studies in *eLife*, which have been commented on in *Nature* (Replication studies offer much

**“AI-generated text is free. Spending years to verify each
line... that will cost you your sanity.”**

o1 model, 28.02.2025

The Impact of Generative AI on Critical Thinking: Self-Reported Reductions in Cognitive Effort and Confidence Effects From a Survey of Knowledge Workers

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Increased confidence in AI correlates with reduced critical thinking effort.

Instead of spending effort searching for information, knowledge workers now focus more on verifying AI-generated content.

Those with higher confidence in their own abilities tend to engage in more critical thinking, despite perceiving it as requiring greater effort.

New Junior Developers Can't Actually Code

Feb 14 2025

Something's been bugging me about how new devs and I need to talk about it.

We're at this weird inflection point in software development. Every junior dev I talk to has Copilot or Claude or GPT running 24/7. They're shipping code faster than ever. But when I dig deeper into their understanding of what they're shipping? That's where things get concerning.

Sure, the code works, but ask why it works that way instead of another way? Crickets. Ask about edge cases? Blank stares.

The foundational knowledge that used to come from struggling through problems is just... missing.



AI gives you answers, but the knowledge you gain is shallow. With StackOverflow, you had to read multiple expert discussions to get the full picture. It was slower, but you came out understanding not just what worked, but why it worked.

Think about every great developer you know. Did they get that good by copying solutions? No—they got there by understanding systems deeply and understanding other developers' thought processes. That's exactly what we're losing.

Erosion of critical thinking and analytical skills

Over-reliance on AI for problem-solving, analysis, or even writing can lead to skill degradation.



<https://www.newyorker.com/sports/sporting-scene/magnus-carlsen-was-defeated-but-the-draw-remains-dominant-in-chess>



Data Safety



Verification



Transparency



Hallucinations...



Background: The rapid evolution of Large Language Models (LLMs) has led to a surge in their potential applications across various sectors in Europe. This paper presents three orthogonal use-cases from the AI4Europe project, demonstrating the spectrum of LLM usage in contexts involving fine-tuned models, private data embedded into a model, and prompt engineering private data, authoritative sources, and public information.¶

Methods: We considered three distinct scenarios: (1) Medical researchers requiring local LLM installation training due to data protection policies, (2) The Norwegian Directorate for Higher Education and Skills aiming to use LLMs for authoritative education-related queries, and (3) The Workability startup leveraging LLMs to develop technology to assist employers in proactive sick-leave management.

Findings: For the medical sector, we found that on-premises LLM training, differential privacy, and federated learning offers promising pathways to balance data privacy with research needs. For the Norwegian Directorate, embedding their data custom knowledge integration with the LLM enables stringent access controls, and real-time data updates are crucial to ensure accurate and authoritative responses. Meanwhile, for public data scenarios like Workability, the primary challenge lies in customizing the conversation using prompt engineering fine-tuning LLMs for domain-specific knowledge without the constraints of data privacy.

Conclusion: As LLMs continue to transform diverse sectors, a tailored approach to their deployment, grounded in the specific data and privacy needs of the sector, is paramount. AI4Europe's exploration across these three use-cases offers valuable insights and strategies for effective LLM application in varied contexts.

Kommune tatt for KI-bruk: – Dette er pinlig

Tromsø kommune brukte kunstig intelligens som hjelpemiddel i arbeidet med en viktig rapport. Rapporten inneholdt flere feil, noe KI-ekspert mener kunne vært unngått.

As more fake citations emerge in the ‘MAHA’ report, White House struggles with a defense

To describe references to nonexistent scientific research as “some formatting issues” is like saying the Titanic confronted “some evening issues.”



May 30, 2025, 2:52 PM GMT+2

By [Steve Benen](#)

<https://www.msnbc.com/rachel-maddow-show/maddowblog/fake-citations-emerge-maha-report-house-struggles-defense-rcna209915>

Bias in LLMs

Large language models can inherit biases from their training data, affecting gender, race, and culture.

Bias in LLMs can reinforce stereotypes, cause discrimination, spread misinformation, and erode public trust.

Transparency

Disclosure example:

“In this work, I have used Generative AI tools to revise wording throughout the production of the text. ChatUiT, during several time periods, was used, using the underlying GPT-4 Large Language Model. I reviewed, edited, and take responsibility for all outputs of the tools used in this work.”

Social stigma?



RESEARCH ARTICLE

PSYCHOLOGICAL AND COGNITIVE SCIENCES

OPEN ACCESS



Evidence of a social evaluation penalty for using AI

Jessica A. Reif^{a,1} , Richard P. Larrick^a, and Jack B. Soll^a

Edited by Susan Fiske, Princeton University, Jamaica, VT; received December 23, 2024; accepted April 6, 2025

Despite the rapid proliferation of AI tools, we know little about how people who use them are perceived by others. Drawing on theories of attribution and impression management, we propose that people believe they will be evaluated negatively by others for using AI tools and that this belief is justified. We examine these predictions in four preregistered experiments ($N = 4,439$) and find that people who use AI at work anticipate and receive negative evaluations regarding their competence and motivation. Further, we find evidence that these social evaluations affect assessments of job candidates. Our findings reveal a dilemma for people considering adopting AI tools: Although AI can enhance productivity, its use carries social costs.

Significance

As AI tools become increasingly prevalent in workplaces, understanding the social dynamics of AI adoption is crucial. Through four experiments with over 4,400

ChatGPT Pro

Subscription Details

- Price: \$200/month (billed monthly).
- Platform: ChatGPT Pro is available on chat.openai.com.
- Not included: API usage is separate and billed independently. See [API pricing](#).

Information literacy is not a luxury – it is a fundamental prerequisite for a functional knowledge society in the 21st century.



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Nothing for the next week

AI for students

+

Introduction

+

Large Language Models?

+

What Are Large Language Models?

+

AI at UiT

+

ChatUiT

+

Bing Copilot

+