

Schadet die KI dem Intellekt? Eine Studie des MIT legt dies nahe

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Das ist so recht verkürzt, daher verallgemeinernd und reißerisch dargestellt, und die Einschränkungen der Studie werden von den Autoren auch klar benannt. Mal sehen, was die weitere Forschung in dem Feld zu Tage fördert.

Zitat

Brain connectivity systematically scaled down with the amount of external support: the Brain-only group exhibited the strongest, widest-ranging networks, Search Engine group showed intermediate engagement, and LLM assistance elicited the weakest overall coupling. [...]

As the educational impact of LLM use only begins to settle with the general population, in this study we demonstrate the pressing matter of exploring a possible decrease in learning skills based on the preliminary results of our study. The use of LLM had a measurable impact on our participants, and while the benefits were initially apparent, as we demonstrated over the course of 4 sessions, which took place over 4 months, the LLM group's participants performed worse than their counterparts in the Brain-only group at all levels: neural, linguistic, scoring.

Zitat

Note, that as of June 2025, when the first paper related to the project, was uploaded to Arxiv, the preprint service, it has not yet been peer-reviewed, thus all the conclusions are to be treated with caution and as preliminary.

Additionally, there are several **limitations** and important avenues for future work, which will need to be addressed in the next or similar studies:

1. In this study we had a **limited number of participants** recruited from a specific geographical area, several large academic institutions, located very close to each other. For future work it will be important to include a larger number of participants coming with diverse backgrounds like professionals in different areas, age groups, as well as ensuring that the study is more gender balanced.
2. This study was performed using ChatGPT, and though we [do](#) not believe that as of the time of this paper publication in June 2025, there are any significant breakthroughs

in any of the commercially available models to grant a significantly different result, we cannot directly generalize the obtained results to other LLM models. Thus, for future work it will be important to include several LLMs and/or offer users a choice to use their preferred one, if any.

3. Future work may also include the use of LLMs with other modalities beyond the text, like audio modality.

4. We did not divide our essay writing task into subtasks like idea generation, writing, and so on, which is often done in prior work. This labeling can be useful to understand what happens at each stage of essay writing and have more in-depth analysis.

5. In our current EEG analysis we focused on reporting connectivity patterns without examining spectral power changes, which could provide additional insights into neural efficiency. EEG's spatial resolution limits precise localization of deep cortical or subcortical contributors (e.g. hippocampus), thus fMRI use is the next step for our future work.

6. Our findings are **context-dependent and are focused on writing an essay in an educational setting and may not generalize across tasks.**

7. Future studies should also consider **exploring longitudinal impacts** of tool usage on memory retention, creativity, and writing fluency.

(<https://www.media.mit.edu/projects/your-...atgpt/overview/>)

Alles anzeigen