5 Eigene Gedanken über einen sinnvollen Einsatz machen

Wie man KI-Tools – und ganz allgemein digitale Medien – sinnvoll zum Lernen einsetzt, ist oft nicht eindeutig klar. Einerseits entwickeln sich die digitalen Werkzeuge sehr schnell weiter, andererseits ist Lernen eben sehr individuell und vielschichtig, so dass man oft keine einfachen Rezepte formulieren kann.

Daher stehen auf dieser Seite nun einige Aussagen nebeneinander – manche argumentieren für die Nutzung von KI und digitalen Medien, andere führen Argumente dagegen ins Feld.

Lies die Aussagen und mache dir deine eigenen Gedanken, um so durch Reflexion ein möglichst gutes Gespür dafür zu bekommen, wann und wie digitale Tools dir beim Lernen helfen und was du lieber ohne diese Hilfe schaffen möchtest.

Falls du die Englischen Texte nicht ganz verstehst, hast du auch hier die Wahl:

- **Schaue einzelne Wörter im Online-Wörterbuch nach** oder – falls dich das nicht weiterbringt –
- **lass die Texte von DeepL übersetzen**

Beides kann sinnvoll sein, je nachdem, wie gut du schon Englisch kannst und wie schnell du damit zu einem vernünftigen Ziel kommst.

Generative AI enables students to produce the product without doing the work. Rather than reading and making sense of difficult source texts, they can ask a chatbot to gin up simplified summaries. Rather than synthesizing various ideas and perspectives through concerted thinking, they can ask the chatbot for a generic synthesis. And rather than expressing (and refining) their thoughts through the composition of sentences and paragraphs, they can get the bot to spit out a first draft or even a final one. The paper a student hands in no longer provides evidence of the work of learning its creation entailed. It is a substitute for the work.

Nicholas Carr: The Myth of Automated Learning

That’s why, ironically, AI might be one of the best tools we have to combat the very attention crisis it’s accused of worsening. As author Johann Hari points out in his book, Stolen Focus, one of the few ways to truly reclaim our focus is by entering a state of flow—where you’re so immersed in something meaningful that everything else fades away.

For some students, AI is doing exactly that. It’s helping them lose track of time while diving into filmmaking, composing music, or writing code for a game they dreamed up. It’s acting as a 24/7 tutor on any subject they can dream of-patient, personalized, and endlessly adaptable-not just teaching what the curriculum demands, but guiding them toward what they’re genuinely passionate about.

A high schooler curious about climate change might ask AI how carbon capture works, then spend hours building a pitch deck for a startup idea. A college student unsure of her major might use it to explore the neuroscience of dreams after a late-night conversation with a friend. In that sense, I have seen firsthand how AI isn’t always replacing learning. In many cases, it’s reviving it.

Catherine Goetze: The Real Reason Why Students Are Using AI to Avoid Learning

The same thing appears to be happening with AI, as a study by some of my colleagues at Penn discovered. They conducted an experiment at a high school in Turkey where some students were given access to GPT-4 to help with homework, either through the standard ChatGPT interface (no prompt engineering) or using ChatGPT with a tutor prompt.

Student homework scores shot up, but the use of unprompted standard ChatGPT to help with homework undermined learning by acting like a crutch. Even though students thought they learned a lot from using ChatGPT, they actually learned less – scoring 17% worse on their final exam.

Ethan Mollick: Post-apocalyptic education

Forscher untersuchen, wann die KI den schulischen Lernerfolg erhöht. Sie haben erste Ergebnisse vorgelegt, die ermutigen. Erfolg versprechen KI-Werkzeuge, die auf das Lernen abgestimmt sind, Lernassistenten, die vorgepromptet sind und Materialien und Übungen enthalten. Nachgewiesen wirkungsvoll sind Tools, die Schülern Rückmeldungen auf ihre Texte geben. Dabei wirkt sich vorteilhaft aus, dass die Systeme allen Kindern zeitnah und jederzeit Feedback geben können - eine Lehrkraft kann das gar nicht leisten.

Lisa Becker: KI macht Schüler dümmer – oder klüger

What AI too often produces is the illusion of learning. Students may well be able to write better papers with a chatbot than they could on their own, but they end up learning less. The problem doesn't seem to be limited to writing assignments. An extensive 2024 University of Pennsylvania study of the effects of AI on high-school math students found, as its authors write in a forthcoming PNAS article, that “access to GPT-4 significantly improves performance [as measured by grades],” but when access to the technology is taken away, “students actually

perform worse than those who never had access.” Armed with generative AI, a B student can produce A work while turning into a C student.

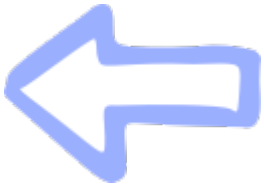
Nicholas Carr: The Myth of Automated Learning

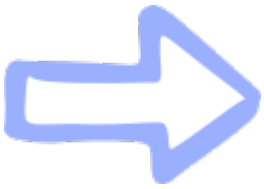
But, from my conversations, I also learned that for every student misusing AI to avoid hard thinking, there’s another embracing it to learn more deeply.

Some use it to check their math homework. Others ask AI to explain calculus to them, because their parents certainly can’t. Some create practice tests to prepare for their exams. And, perhaps most powerfully of all, others turn to AI to ask honest, “dumb” questions they genuinely want answers to, igniting curiosity in topics their classrooms might overlook.

Catherine Goetze: The Real Reason Why Students Are Using AI to Avoid Learning

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INHALT

- **Lernen mit KI**
  - 0 Wie funktioniert ein Chatbot eigentlich?
  - 1 KI in der Schule – Erste Übersicht
  - 2 Tipps zum Umgang mit KI beim Lernen
  - 3 Gute Prompts zum Lernen
  - 4 KI-Anbieter, Modelle und Tools
  - 5 KI und Recherche – das richtige Werkzeug für die richtige Frage

- 6 Eigene Gedanken über einen sinnvollen Einsatz machen
- 7 Abschluss – und was du sonst noch wissen solltest