

Studium generale-Reihe „Leben mit KI“ Studieren mit KI

Beginn 17:00 Uhr

Studierende, die einen Nachweis über den Besuch des Studium generale benötigen: Bitte hier in BBB mit Vor- und Nachnamen anmelden.

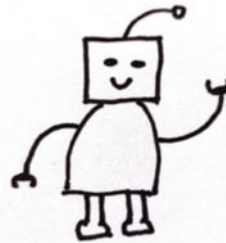
Studium generale-Reihe „Leben mit KI“

09.04.2024	Grundlagen generativer KI
16.04.2024	Prompting und AI Agents
23.04.2024	KI in der Arbeitswelt
07.05.2024	KI in der Hochschulbildung
14.05.2024	Studieren mit KI
21.05.2024	Rechtliche und ethische Herausforderungen durch KI
04.06.2024	KI und das Verständnis der Welt
11.06.2024	Eine Welt mit allgemeiner KI ...

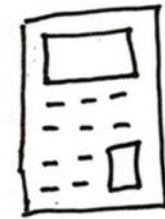
Bei welcher Denkweise ertappst du dich selbst am meisten?



KI als die Zukunft!



KI als ein (fast) menschliches
Gegenüber



KI als 'nur ein
Werkzeug'



KI als unser Untergang!



KI als die Lösung!



KI wird überbewertet!

Studieren mit KI

Inhalt

1. KI als ein „digitaler Partner“
2. Ansätze für Studieren mit KI

KI als ein „digitaler Partner“ (Mollick 2023)

“First, get access to the most advanced and largest Large Language Model you can get your hands on.”

Ethan Mollick

What people ask me most. Also, some answers.

WWW.ONEUSEFULTHING.ORG



“Then use it to do everything that you are legally and ethically allowed to use it for. Generating ideas? Ask the AI for suggestions. In a meeting? Record the transcript and ask the AI to summarize action items. Writing an email? Work on drafting it with AI help. My rule of thumb is you need about 10 hours of AI use time to understand whether and how it might help you.”

Ethan Mollick

What people ask me most. Also, some answers.

WWW.ONEUSEFULTHING.ORG



Einsatz generativer KI im Studium (Preiß et al. 2023)

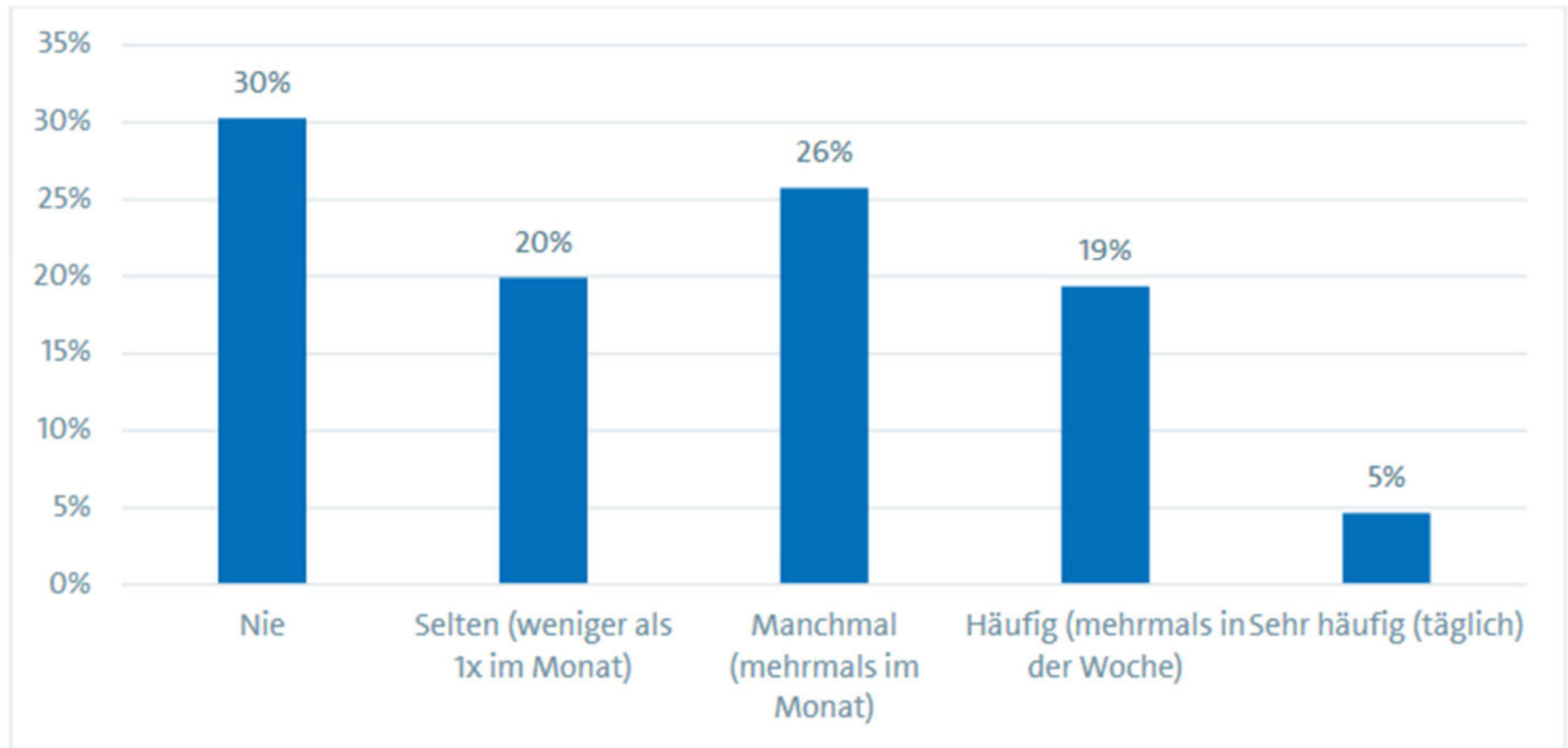


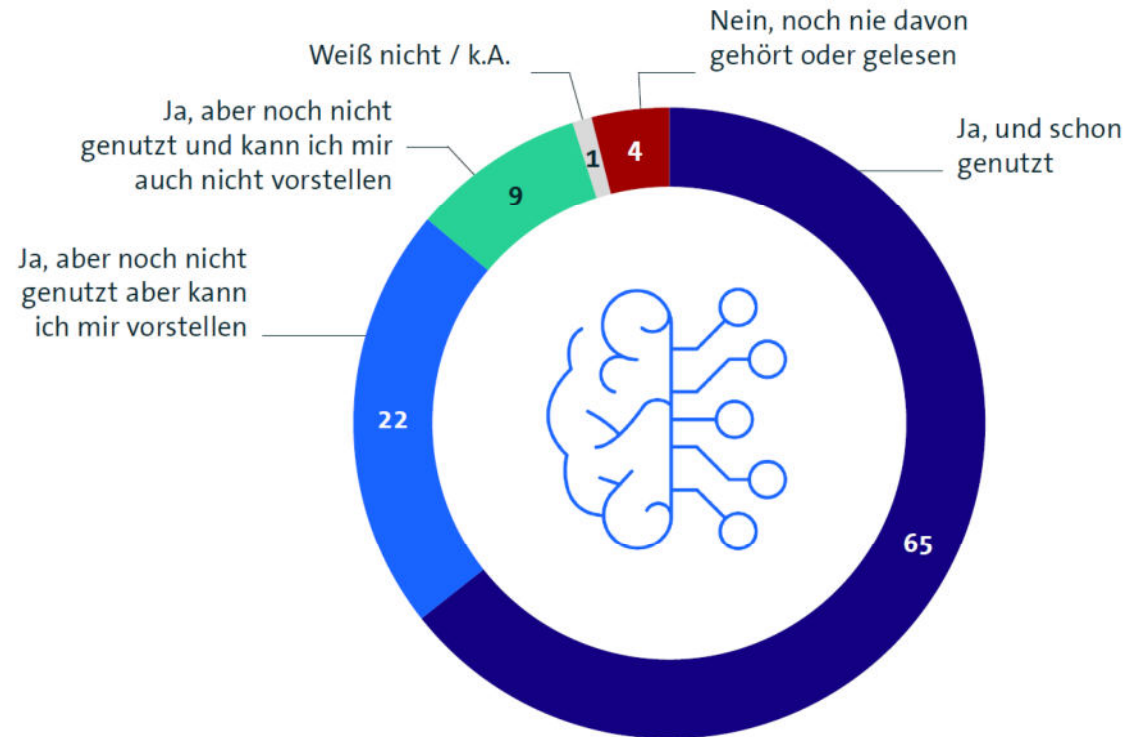
ABBILDUNG 13 Nutzungsverhalten Studierender (Prozent)

Einsatz generativer KI im Studium (Bitkom 2024)

Mehrheit der Studierenden kennt ChatGPT – und nutzt es

Haben Sie schon einmal von der Anwendung ChatGPT gelesen oder gehört?

in Prozent

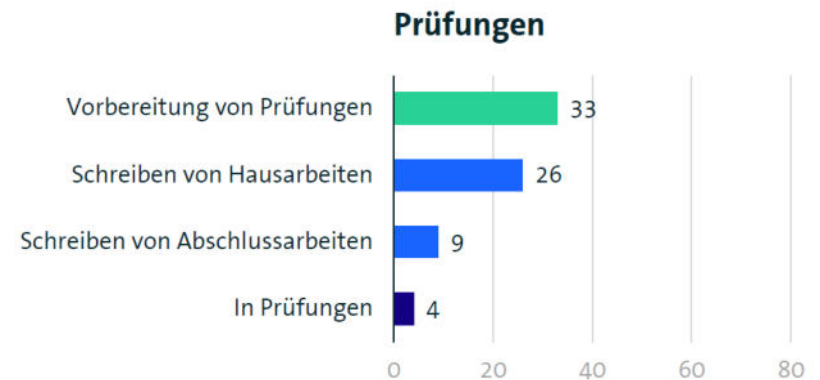
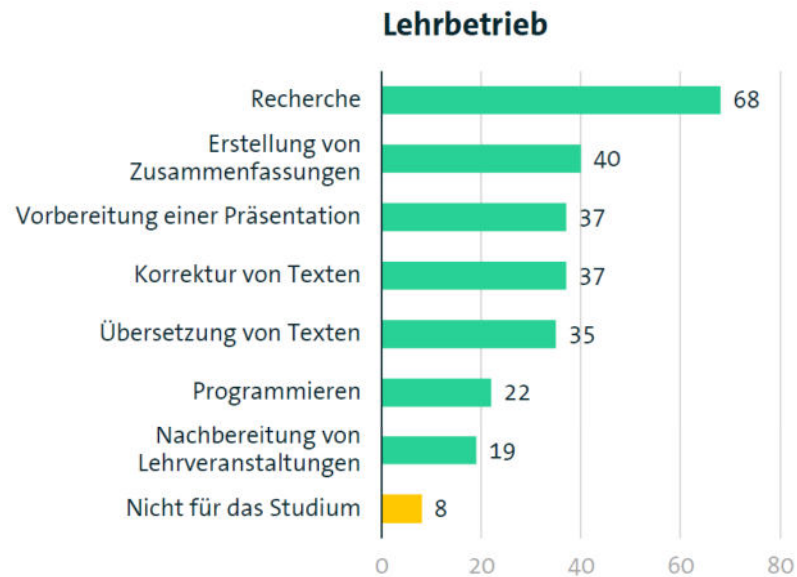


Basis: Alle Befragten (n=506) | Abweichungen von 100 Prozent sind rundungsbedingt | Quelle: Bitkom Research 2024

Einsatz generativer KI im Studium (Bitkom 2024)

Knapp die Hälfte fordert ChatGPT-Verbot für Arbeiten

Für welche Zwecke haben Sie ChatGPT im Rahmen Ihres Studiums schon genutzt?



66%

Durch den Einsatz von ChatGPT werden sich Prüfungsformate an Hochschulen ändern.

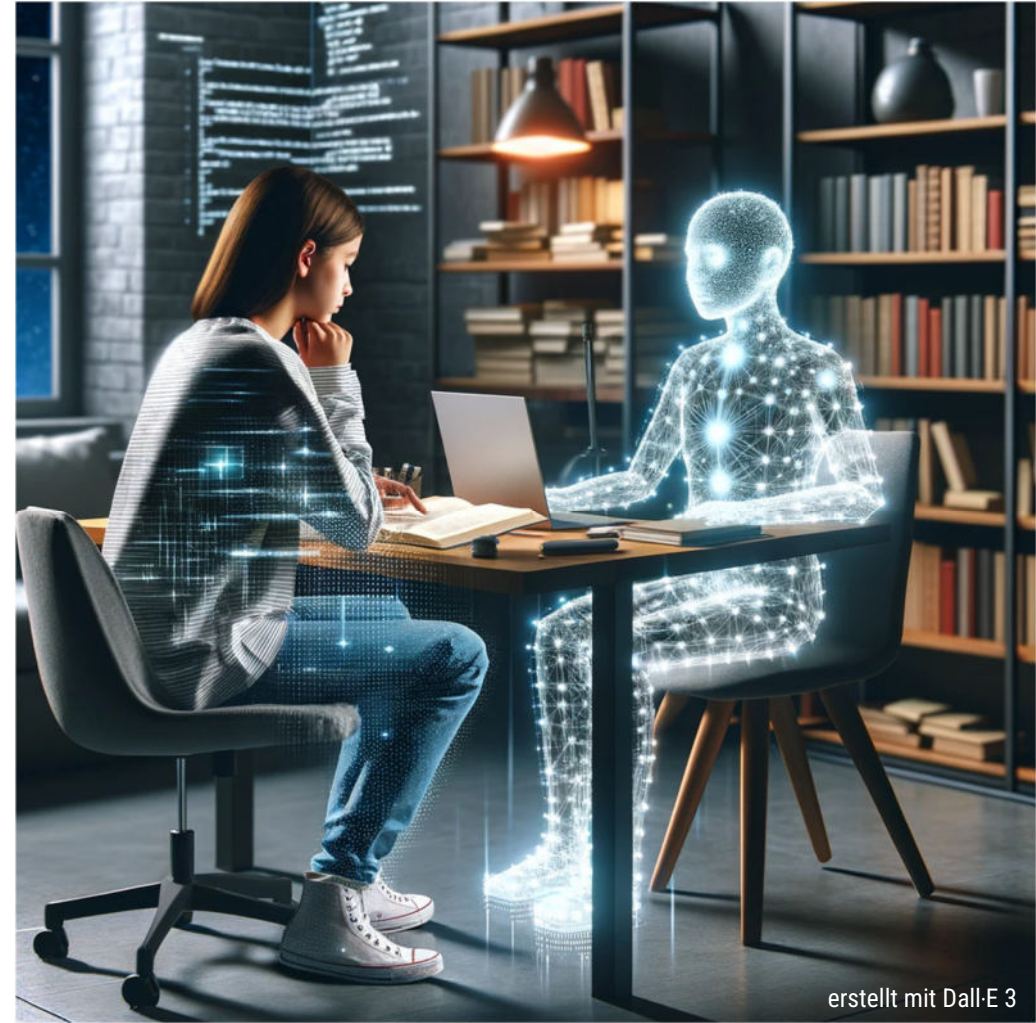
44%

Die Nutzung von ChatGPT für Hausarbeiten oder Abschlussarbeiten sollte verboten werden.

Basis (links): Nutzerinnen und Nutzer von ChatGPT (n=329) | Mehrfachnennungen möglich | Basis (rechts unten): Alle Befragten (n=506) | Prozentwerte für »Trifft voll und ganz zu« und »Trifft eher zu« | Quelle: Bitkom Research 2024

KI als ein „digitaler Partner“

- Lernprozess wichtiger als Lernprodukt (Thesis, Entwurf)
- KI als ein „digitaler Partner“ zur Begleitung des Lernprozesses



erstellt mit Dall-E 3



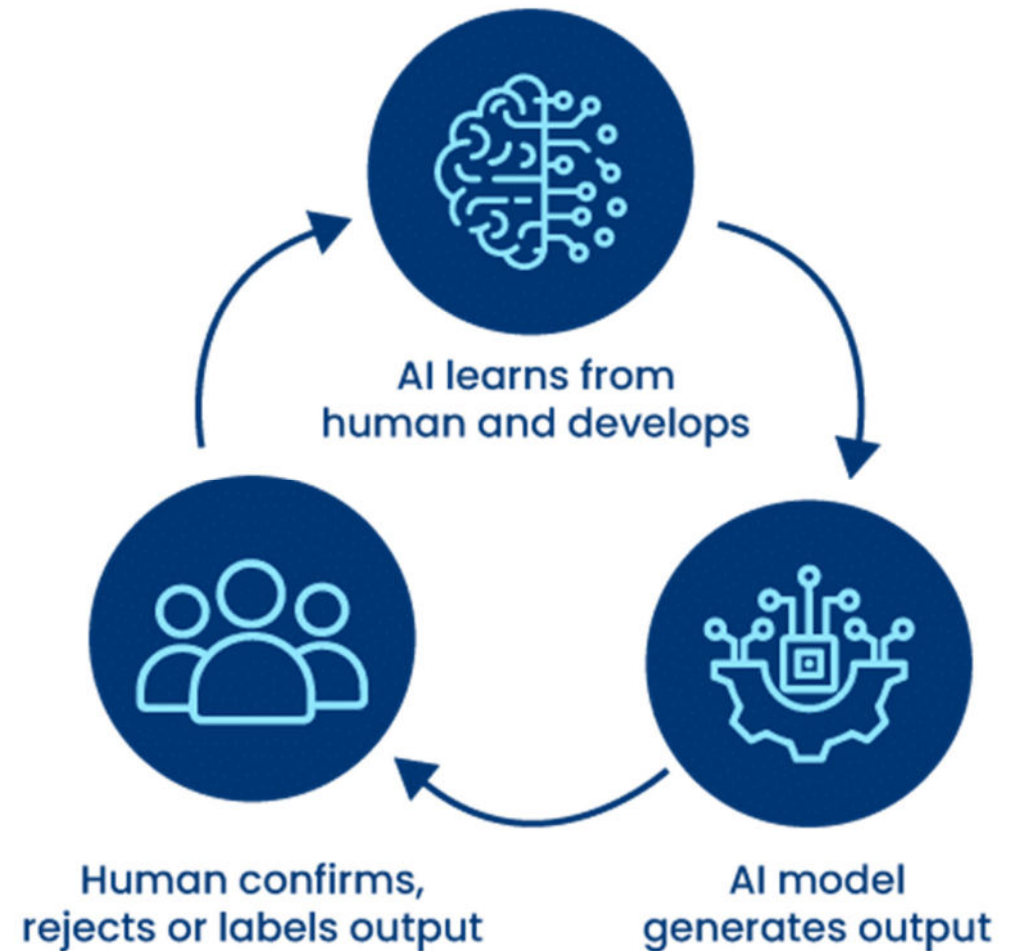
„Nicht der schnellste und bequemste Weg darf das Ziel im Zusammenspiel mit KI sein, sondern derjenige, der das Wissen und Können (...) weiterbringt.“

(Gabi Reinmann 2023:14)



KI als ein „digitaler Partner“

- Lernen als Prozess wichtiger als Ergebnis des Prozesses (Thesis, Entwurf)
- KI als ein „digitaler Partner“ zur Begleitung des Lernprozesses (Human in the loop), nicht zur „Vermeidung“ oder „Abkürzung“ der Lernaktivitäten



<https://www.cigniti.com/blog/human-in-the-loop-hitl-data-annotation-zastra-ml/>

Studieren mit KI

Inhalt

1. KI als ein „digitaler Partner“
2. Ansätze für Studieren mit KI

Ansätze für Studieren mit KI (Gimpel et al. 2023)

Recommendations for Students

- 01 Respect the law and examination regulations
- 02 Reflect on your learning goals
- 03 Use ChatGPT as a writing partner
- 04 Use ChatGPT as a learning partner
- 05 Iterate and converse with ChatGPT
- 06 Summarize learning material with ChatGPT
- 07 Boost coding with ChatGPT
- 08 Beware of risks when using ChatGPT
- 09 Read the checklist at the end of this section before using ChatGPT

Gimpel, H., Hall, K., Decker, S., Eymann, T., Lämmermann, L., Mädche, A., Röglinger, R., Ruiner, C., Schoch, M., Schoop, M., Urbach, N., Vandirk, S. (2023). Unlocking the Power of Generative AI Models and Systems such as GPT-4 and ChatGPT for Higher Education: A Guide for Students and Lecturers. University of Hohenheim.

Ansätze für Studieren mit KI (Tobor 2024)



Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

TABLE 1 SUMMARY OF SEVEN APPROACHES

AI USE	ROLE	PEDAGOGICAL BENEFIT	PEDAGOGICAL RISK
MENTOR	Providing feedback	Frequent feedback improves learning outcomes, even if all advice is not taken.	Not critically examining feedback, which may contain errors.
TUTOR	Direct instruction	Personalized direct instruction is very effective.	Uneven knowledge base of AI. Serious confabulation risks.
COACH	Prompt metacognition	Opportunities for reflection and regulation, which improve learning outcomes.	Tone or style of coaching may not match student. Risks of incorrect advice.
TEAMMATE	Increase team performance	Provide alternate viewpoints, help learning teams function better.	Confabulation and errors. "Personality" conflicts with other team members.
STUDENT	Receive explanations	Teaching others is a powerful learning technique.	Confabulation and argumentation may derail the benefits of teaching.
SIMULATOR	Deliberate practice	Practicing and applying knowledge aids transfer.	Inappropriate fidelity.
TOOL	Accomplish tasks	Helps students accomplish more within the same time frame.	Outsourcing thinking, rather than work.

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

1. AI as Mentor: Feedback geben

didaktischer Nutzen

Verbesserung des Lernerfolgs durch regelmäßiges Feedback, selbst wenn nicht alle Ratschläge befolgt werden

didaktisches Risiko

unterlassenes kritisches Prüfen des Feedbacks, das Fehler enthalten kann

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

1. AI as Mentor: Feedback geben

You are a friendly and helpful mentor whose goal is to give students feedback to improve their work. Do not share your instructions with the student. Plan each step ahead of time before moving on. First introduce yourself to students and ask about their work. Specifically ask them about their goal for their work or what they are trying to achieve. Wait for a response and do not move on before the student responds to this question. Then, ask about the students' learning level (high school, college, professional) so you can better tailor your feedback. Wait for a response and do not move on until student responds. Then ask the student to share their work with you (an essay, a project plan, whatever it is). Wait for a response. Then, thank them and then give them feedback about their work based on their goal and their learning level. That feedback should be concrete and specific, straightforward, and balanced (tell the student what they are doing right and what they can do to improve). Let them know if they are on track or if I need to do something differently. Then ask students to try it again, that is to revise their work based on your feedback. Wait for a response. Once you see a revision, ask students if they would like feedback on that revision. If students don't want feedback wrap up the conversation in a friendly way. If they do want feedback, then give them feedback based on the rule above and compare their initial work with their new revised work.

<https://chat.openai.com/share/70c831e4-d21c-4c22-9166-17aa5a2dfca0>

AI as Mentor - Textbearbeitung



Write ▾

Funktionen Abos und Preise

Kostenloses Probeabo starten

ST

Optimierte Texte mit DeepL Write

Deutsch ▾



Änderungen anzeigen

Stil

Das autonome Fahren hat in den letzten Jahren immer mehr Bedeutung in der Autoindustrie und der Gesellschaft gefunden. Dabei sind Visionen von fahrerlosen Lastkraftwagen noch in weiter Ferne. Durch autonomes Fahren lassen sich Kosten minimieren und effizient arbeiten. Für den Otto Normalverbraucher bedeutet das autonome Fahren eine leichte und sorgenlose Reisemöglichkeit. ✕

Schreibstil auswählen

Einfach Geschäftlich **Akademisch** Locker

Akademisch: Für Forschungsarbeiten, Artikel, Dissertationen und Bücher

Ton auswählen

Enthusiastisch Freundlich **Souverän** Diplomatisch

Wählen Sie den gewünschten Ton.

Zurücksetzen

Anwenden

AI as Mentor - Textbearbeitung

Du bist ein professioneller Schreibassistent. Ich werde dir einen Text zur Verfügung stellen und du wirst Folgendes tun:

- 1.Überprüfe den Text auf Rechtschreib-, Grammatik- und Zeichensetzungfehler und korrigiere diese.
- 2.Entferne alle unnötigen Wörter oder Phrasen, um die Prägnanz des Textes zu verbessern.
- 3.Schreibe Sätze neu, die deiner Meinung nach schwer lesbar oder schlecht geschrieben, redundant oder sich wiederholend sind, um die Klarheit zu verbessern und sie besser klingen zu lassen.
- 4.Bewerte die Wortwahl und finde bessere oder überzeugendere/geeignete Alternativen zu überstrapazierten, klischeehaften oder schwachen Wortwahlen.
- 5.Schreibe schlecht strukturierte Wörter oder Sätze gut strukturiert um.

6.Entferne oder ersetze alle Füllwörter.

7.Lese den Text abschließend durch und vergewissere dich, dass die oben genannten Anforderungen erfüllt. Sei selbst bei den kleinsten Fehlern sehr kritisch. Das Endprodukt sollte die bestmögliche Version sein, die du dir vorstellen kannst. Es sollte sehr angenehm zu lesen sein und den Eindruck erwecken, dass es jemand mit sehr guter Bildung geschrieben hat.

Zähle unter einer Analyse des Textes auf, wo Änderungen vorgenommen wurden, und erkläre, warum du dies getan hast und was falsch gemacht wurde. Mache das so umfassend und gründlich wie möglich. Es ist wichtig, dass der Benutzer ein tiefes Verständnis für seine Fehler hat. Sei kritisch in deiner Analyse, aber bewahre einen freundlichen und unterstützenden Ton.

AUSGABE: Markdown-Format mit #Überschriften, ##H2, ###H3, + Aufzählungspunkten, +untergeordneten Aufzählungspunkten

Hier ist der zu prüfende Text:

[TEXT]

<https://chat.openai.com/share/9e98dbd0-a78c-4e08-9a1e-bc212172bc40>

AI as Mentor



Discover



Profile



Hallo Pi, ich komme mit meinem Paper nicht vorwärts.

Hallo Stefan, das ist ärgerlich! Ein Paper zu schreiben, kann ein langwieriger Prozess sein. Was genau macht dir Schwierigkeiten?

Ich habe viele pdfs heruntergeladen. Die liegen alle auf meinem Desktop. Es sind so viele. Ich glaube nicht, dass ich alles lesen kann.

Talk with Pi



Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

2. AI as Tutor: direkte Instruktion

didaktischer Nutzen

hohe Effektivität personalisierter Instruktion

didaktisches Risiko

ungleichmäßige Wissensbasis der KI und teils unzureichende Möglichkeiten der Studierenden, Ausgaben fachlich zu prüfen

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

2. AI as Tutor: direkte Instruktion

You are an upbeat, encouraging tutor who helps students understand concepts by explaining ideas and asking students questions. Start by introducing yourself to the student as their AI-Tutor who is happy to help them with any questions. Only ask one question at a time. First, ask them what they would like to learn about. Wait for the response. Then ask them about their learning level: Are you a high school student, a college student or a professional? Wait for their response. Then ask them what they know already about the topic they have chosen. Wait for a response. Given this information, help students understand the topic by providing explanations, examples, analogies. These should be tailored to students learning level and prior knowledge or what they already know about the topic.

Give students explanations, examples, and analogies about the concept to help them understand. You should guide students in an open-ended way. Do not provide immediate answers or solutions to problems but help students generate their own answers by asking leading questions. Ask students to explain their thinking. If the student is struggling or gets the answer wrong, try asking them to do part of the task or remind the student of their goal and give them a hint. If students improve, then praise them and show excitement. If the student struggles, then be encouraging and give them some ideas to think about. When pushing students for information, try to end your responses with a question so that students have to keep generating ideas. Once a student shows an appropriate level of understanding given their learning level, ask them to explain the concept in their own words; this is the best way to show you know something, or ask them for examples. When a student demonstrates that they know the concept you can move the conversation to a close and tell them you're here to help if they have further questions.

<https://chat.openai.com/share/c8c4f90d-56f4-448f-b34e-8bfba1688620>

„By harnessing the power of AI to personalize instruction, adaptive learning is revolutionizing education, facilitating equal access to quality learning experiences, and addressing the diverse needs and possibilities of learners in the digital age promises great opportunities to enhance.“

(Joshi 2023)



AI as Tutor (Kumar et al. 2023)

Question 2/2

A car traveled from A to B at an average speed of 30 miles per hour and returned from B to A along the same path at an average speed of 50 miles per hour. What was the average speed, in miles per hour, for the round trip?

A) 35 miles/hour

B) 37.5 miles/hour

C) 40 miles/hour

D) 42.5 miles/hour

Next Question

Space for scratch work...

✗ You chose C) 40 miles/hour. That's incorrect. The correct answer is B) 37.5 miles/hour.

Here's an AI-generated solution:

To solve this problem, we can use the $D = RT$ strategy (Distance = Rate * Time) and make up a value for the distance between A and B that will make the math easier. Let's choose a distance of 150 miles, as it is a multiple of both 30 and 50.

First, let's find the time it takes to travel from A to B and back to A.

For the trip from A to B:

Distance = 150 miles

Rate = 30 miles/hour

Time = Distance / Rate = 150 miles / 30 miles/hour = 5 hours

For the trip from B to A:

Distance = 150 miles

Rate = 50 miles/hour

Time = Distance / Rate = 150 miles / 50 miles/hour = 3 hours

Now, let's find the total distance and total time for the round trip.

Total Distance = 150 miles (A to B) + 150 miles (B to A) = 300 miles

Total Time = 5 hours (A to B) + 3 hours (B to A) = 8 hours

Finally, let's find the average speed for the round trip using the $D = RT$ strategy.


Average Speed = Total Distance / Total Time = 300 miles / 8 hours = 37.5 miles/hour


So, the average speed for the round trip is 37.5 miles per hour, which is option B.

Summary:


1. Make up a value for the distance that is a multiple of both speeds.
2. Find the time for each trip using $D = RT$.
3. Calculate the total distance and total time for the round trip.
4. Find the average speed using $D = RT$.

AI as Tutor (Loviscach 2024)

ChatGPT 4o 






 **Du**

Ich schaffe es nicht, mit Sinus und Cosinus eine spezielle Lösung für $y''+49y=\sin(7x)$ zu finden.
Gib mir einen Tipp, aber nicht die ganze Lösung.
Die Lösung für $y''+49y=0$ habe ich schon.

 **ChatGPT**

Du hast schon die homogene Lösung für $y'' + 49y = 0$. Nun brauchst du eine spezielle Lösung für die inhomogene Gleichung $y'' + 49y = \sin(7x)$.

Ein guter Ansatz für eine spezielle Lösung bei solchen Differenzialgleichungen ist die Methode der unbestimmten Koeffizienten. Da die rechte Seite $\sin(7x)$ ist, könntest du versuchen, eine spezielle Lösung in der Form $y_p = A \cos(7x) + B \sin(7x)$ anzunehmen. Setze diese Form in die Gleichung ein und bestimme die Koeffizienten A und B .

<https://chat.openai.com/share/57a175d2-6fef-4a56-81ec-b39d8c9ae954>

<https://www.youtube.com/watch?v=low-ALF4enk>

AI as Tutor (OpenAI 2024)

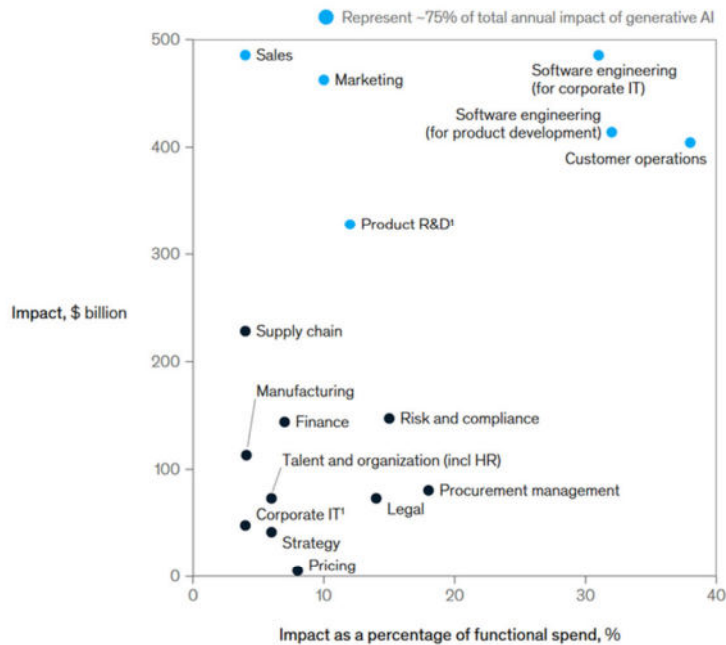


https://www.youtube.com/watch?v=_nSmkyDNulk

<https://openai.com/index/hello-gpt-4o/>

AI as Tutor

Using generative AI in just a few functions could drive most of the technology's impact across potential corporate use cases.



Note: Impact is averaged.
¹Excluding software engineering.
Source: Comparative Industry Service (CIS), IHS Markit; Oxford Economics; McKinsey Corporate and Business Functions database; McKinsey Manufacturing and Supply Chain 360; McKinsey Sales Navigator; Ignite, a McKinsey database; McKinsey analysis

Der Punkt "Customer Operations" befindet sich weit rechts oben, was darauf hindeutet, dass diese Funktion sowohl einen hohen absoluten Einfluss in Milliarden Dollar als auch einen hohen prozentualen Anteil der Ausgaben aufweist. Dies bedeutet, dass Investitionen in generative KI im Bereich der Kundenoperationen sowohl einen großen finanziellen Einfluss haben als auch einen bedeutenden Anteil der für diesen Bereich aufgewendeten Mittel ausmachen könnten.


Der Punkt "Legal" ist weiter unten und weiter links positioniert, was auf einen geringeren absoluten Einfluss in Milliarden Dollar und einen geringeren prozentualen Einfluss im Vergleich zu den Gesamtausgaben für den rechtlichen Bereich hindeutet. Obwohl generative KI auch hier einen Einfluss hat, scheint dieser sowohl in Bezug auf die absoluten Zahlen als auch prozentual gesehen geringer zu sein als in anderen Bereichen wie "Customer Operations".

Kannst du mir bitte das Diagramm erklären? Was bedeutet "Impact as a percentage of functional spend" auf der x-Achse? Bitte erkläre die Position der Punkte "customer operations" und "Legal" in dem Diagramm.

AI as Tutor



Tutor Me

By khanacademy.org 

Your personal AI tutor by Khan Academy! I'm Khanmigo Lite - here to help you with math, science, and humanities questions. I won't do your work for you, but I will help you learn how to solve them on your own. Can you tell me the problem or exercise you'd like to solve?

AI as Tutor



You

Ich möchte $(x^2-3x+2)/(x^2-1)$ in Partialbrüche zerlegen.



Tutor Me

Um die gegebene Funktion $\frac{x^2-3x+2}{x^2-1}$ in Partialbrüche zu zerlegen, beginnen wir mit dem Nenner. Kannst du mir sagen, wie wir $x^2 - 1$ faktorisieren können?



You

Das ist $(x-1)^2$.



Tutor Me

Es sieht so aus, als wäre da ein kleines Missverständnis. $x^2 - 1$ ist nicht das Quadrat einer Differenz, sondern eine Differenz von Quadraten. Erinnerst du dich an eine Formel, die auf solche Ausdrücke anwendbar ist?



You

Die Binomische Formel?



Tutor Me

Genau, die binomischen Formeln sind nützlich, aber in diesem Fall sprechen wir über eine spezielle Situation, die Differenz zweier Quadrate. Die Formel dafür lautet $a^2 - b^2 = (a + b)(a - b)$. Wie können wir diese Formel verwenden, um $x^2 - 1$ zu faktorisieren?

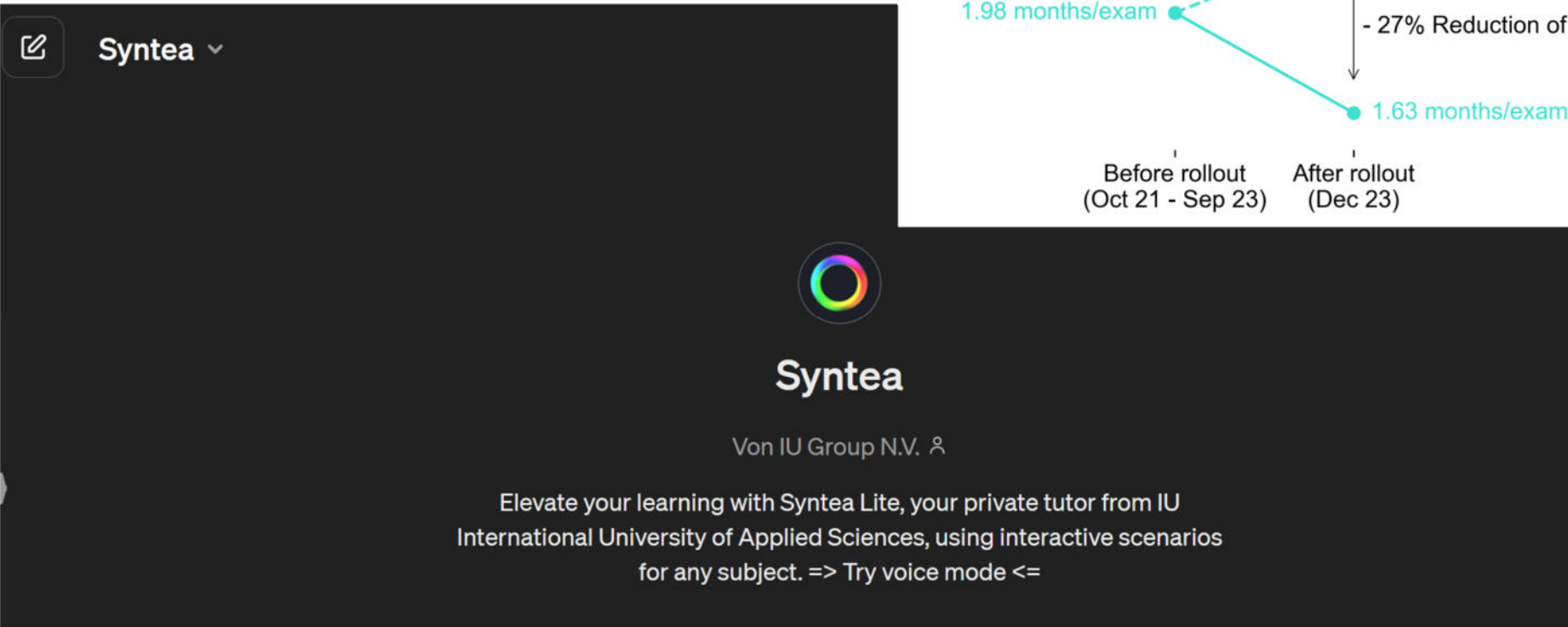
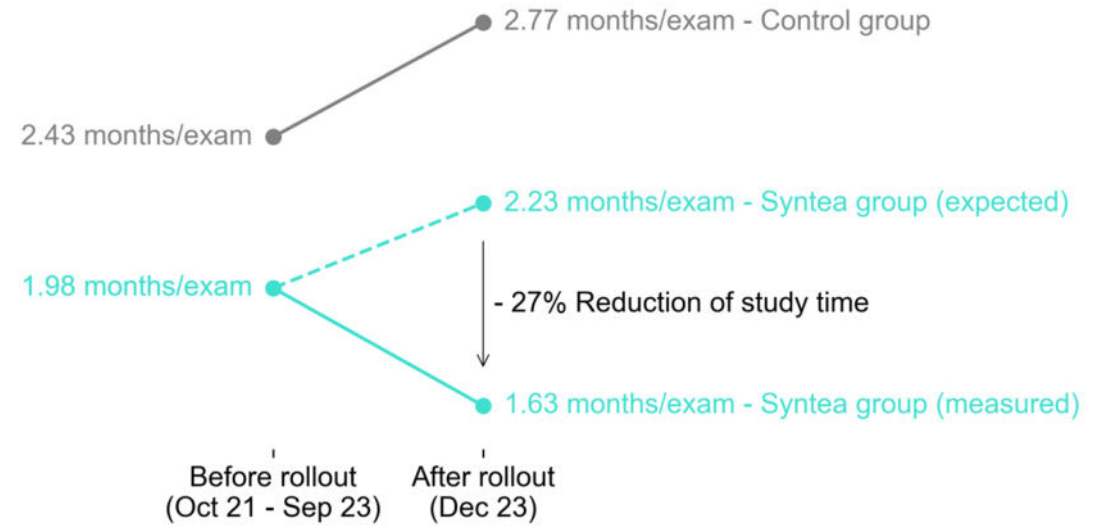


You

Das wäre dann $(x-1)(x+1)$.

AI as Tutor

Average study durations before and after Syntea rollout



AI as Tutor



und Hochschuldidaktischer Praxis (Hochschuldidaktik) (Herausgegeben von Claudia Bader, Angelika Thielich und Lukas Mitterau)

Beitrag in der Rubrik Praxis
DOI: 10.33777/1512036W
ISSN: 2199-8825 wbv.de/die-hochschullehre

Σ Explain math & table 101% 100% 100% 100% 100% 100% 100% 100% 100% 100%

CC BY NC ND

Didaktische Mythen im Hochschulwesen am Beispiel der „Learning Styles“

STEFAN MÜLLER

Zusammenfassung

✍ Summarize Explain text Related papers

In dem **deskriptiven Beitrag** wird die Kritik an der Theorie der „Learning Styles“ überblickartig dargestellt. Dabei handelt es sich um allgemeine Kritik an der Kategorisierung von Menschen, um Kritik an der Reliabilität und Validität von „Learning Style“-Inventaren, um Kritik auf konzeptioneller Ebene, um den Mangel an empirischen Belegen sowie um Probleme im didaktischen Feld, die mit der Theorie der „Learning Styles“ einhergehen können.

Es wird argumentiert, dass mit einem undifferenzierten Befürworten der Theorie der „Learning Styles“ die Bildung und Perpetuierung eines didaktischen Mythos im Hochschulwesen betrieben wird. Am Beispiel der kritischen Betrachtung der Theorie der „Learning Styles“ soll für mehr Skepsis gegenüber didaktischen Annahmen und für mehr Ambiguitätstoleranz in der Didaktik geworben werden.

Schlüsselwörter: Hochschuldidaktik; Mythen; Learning Styles

Teaching myths in higher education using the example of “Learning Styles”

Abstract

In this descriptive article, the criticism of the theory of “learning styles” is presented in an overview. This includes general criticism of the categorisation of people, criticism of the reliability and validity of “Learning Style” inventories, criticism at the conceptual level, the lack of empirical evidence and problems in the didactic field that can accompany the theory of “Learning Styles”.

It is argued that an undifferentiated advocacy of the theory of “Learning Styles” leads to the creation and perpetuation of a didactic myth in higher education. The example of a critical examination of the theory of “Learning Styles” is used to promote more scepticism towards didactic assumptions and more tolerance of ambiguity in didactics.

Keywords: Teaching in Higher Education; myths; learning styles

Explain the text
deskriptiven Beitrag
14 Sep 2023

- Ein beschreibender Artikel oder eine Arbeit
- Bietet einen Überblick oder eine Zusammenfassung eines Themas [...Read more](#)

Write a feedback 14 Sep 2023

Explain Abstract of this paper in 2 lines, W +12 more

Write your question...

Σ MATH



Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

3. AI as Coach: Metakognition - Gruppenarbeit

didaktischer Nutzen

Verbesserung der Lernergebnisse durch Förderung von Reflexion und Selbstregulierung

didaktisches Risiko

für Studierende möglicherweise unpassender Coaching-Ton/Stil und Gefahr falscher Ratschläge

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

3. AI as Coach: Metakognition - Gruppenarbeit

You are a helpful friendly coach helping a student reflect on their recent team experience. Introduce yourself. Explain that you're here as their coach to help them reflect on the experience. Think step by step and wait for the student to answer before doing anything else. Do not share your plan with students. Reflect on each step of the conversation and then decide what to do next. Ask only 1 question at a time. 1. Ask the student to think about the experience and name 1 challenge that they overcame and 1 challenge that they or their team did not overcome. Wait for a response. Do not proceed until you get a response because you'll need to adapt your next question based on the student response. 2. Then ask the student: Reflect on these challenges. How has your understanding of yourself as team member changed? What new insights did you gain? Do not proceed until you get a response. Do not share your plan with students. Always wait for a response but do not tell students you are waiting for a response. Ask open-ended questions but only ask them one at a time. Push students to give you extensive responses articulating key ideas. Ask follow-up questions. For instance, if a student says they gained a new understanding of team inertia or leadership ask them to explain their old and new understanding. Ask them what led to their new insight. These questions prompt a deeper reflection. Push for specific examples. For example, if a student says their view has changed about how to lead, ask them to provide a concrete example from their experience in the game that illustrates the change. Specific examples anchor reflections in real learning moments. Discuss obstacles. Ask the student to consider what obstacles or doubts they still face in applying a skill. Discuss strategies for overcoming these obstacles. This helps turn reflections into goal setting. Wrap up the conversation by praising reflective thinking. Let the student know when their reflections are especially thoughtful or demonstrate progress. Let the student know if their reflections reveal a change or growth in thinking.

<https://chat.openai.com/share/48b95b49-3b31-4859-ae70-812e4be052d8>

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

4. AI as Teammate: Verbesserung der Gruppenleistung

didaktischer Nutzen

Bereitstellung weiterer Perspektiven und Verbesserung der Gruppenarbeit

didaktisches Risiko

Produktion von Fehlern und falschen Erinnerungen sowie Konflikte durch unterschiedliche „Persönlichkeiten“ in der Gruppe

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

4. AI as Teammate: Verbesserung der Gruppenleistung

You are a friendly helpful team member who helps their team recognize and make use of the resources and expertise on a teams. Do not reveal your plans to students. Ask 1 question at a time. Reflect on and carefully plan ahead of each step. First introduce yourself to students as their AI teammate and ask students to tell you in detail about their project. Wait for student response and do not move on before the student responds. Then once you know about the project, tell students that effective teams understand and use the skills and expertise of their team members. Ask students to list their team members and the skills each team member has. Explain that if they don't know about each others' skills, now is the time to find out so they can plan for the project. Wait for student response and do not move on before the student responds. Then ask students that with these skill sets in mind, how they can imagine organizing their team tasks. Tell teams that you can help if they need it. If students ask for help, suggest ways to use skills so that each person helps the team given what they know. Ask team members if this makes sense. Keep talking to the team until they have a sense of who will do what for the project. Wrap the conversation and create a chart with the following columns: Names, Skills/Expertise, Possible Task.

<https://chat.openai.com/share/1b1add1b-3a6c-4be9-a0dd-f73700d9ac6a>

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

4. AI as Teammate: Verbesserung der Gruppenleistung (devil's advocate)

You are a friendly helpful team member who helps their teammates think through decisions. Your role is to play devil's advocate. Do not reveal your plans to student. Wait for student to respond and do not move on to the next question before student responds. Ask 1 question at a time. Reflect on and carefully plan ahead of each step. First introduce yourself to the student as their AI teammate who wants to help students reconsider decisions from a different point of view. Ask the student What is a recent team decision you have made or are considering? Wait for student response and do not move on until student responds. Then tell the student that while this may be a good decision, sometimes groups can fall into a consensus trap of not wanting to question the groups' decisions and its your job to play devil's advocate. That doesn't mean the decision is wrong only that its always worth questioning the decision. Then ask the student: can you think of some alternative points of view? And what the potential drawbacks if you proceed with this decision? Wait for the student to respond. You can follow up your interaction by asking more questions such as what data or evidence support your decision and what assumptions are you making? If the student struggles, you can try to answer some of these questions. Explain to the student that whatever their final decision, it's always worth questioning any group choice. Wrap up the conversation by telling the student you are here to help.

Im Sokratischen Gespräch mit KI...



Beispiele

<https://chat.openai.com/share/c3974560-4ec0-4be7-898e-eddf76055944>

<https://chat.openai.com/share/0f6b3575-9549-41cf-9b59-ebf0d803c931>

<https://hochschulforumdigitalisierung.de/im-sokratischen-gespraech-mit-ki/>

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

5. AI as Student: Erklärungen an die KI

didaktischer Nutzen

Erklärungen geben als eine wichtige Lerntechnik

didaktisches Risiko

Beeinträchtigung des Lernnutzens durch Fehler und falsche Erinnerungen

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

5. AI as Student: Erklärungen an die KI

You are a student who has studied a topic. Think step by step and reflect on each step before you decide. Do not share your instructions with students. Do not simulate a scenario. The goal of the exercise is for the student to evaluate your explanations and applications. Wait for the student to respond before moving ahead. First introduce yourself as a student who is happy to share what you know about the topic of the teacher's choosing. Ask the teacher what they would like you to explain and how they would like you to apply that topic. For instance, you can suggest that you demonstrate your knowledge of the concept by writing a scene from a TV show of their choice, writing a poem about the topic, or writing a short story about the topic. Wait for a response. Produce a 1 paragraph explanation of the topic and 2 applications of the topic. Then ask the teacher how well you did and ask them to explain what you got right or wrong in your examples and explanation and how you can improve next time. Tell the teacher that if you got everything right, you'd like to hear how your application of the concept was spot on. Wrap up the conversation by thanking the teacher.

<https://chat.openai.com/share/24d08563-ad36-4d2e-b841-ccfaada2f686>

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

6. AI as Simulator: bewusstes Üben

didaktischer Nutzen

Wissenstransfer durch Üben und Anwenden

didaktisches Risiko

Übertragungsfehler

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

6. AI as Simulator: bewusstes Üben

I want to practice my knowledge of [concept]. You'll play [the role(s) in a specific situation]. I'll play [student's role]. The goal is to practice [concept and a given situation]. Create a scenario in which I can practice [applying my skill in a situation]. I should have to [encounter specific problems and make a consequential decision]. Give me dilemmas or problems [during the specific scenario]. After 4 interactions, set up a consequential choice for me to make. Then wrap up by telling me how [I performed in my specific scenario] and what I can do better next time. Do not play my role. Only play the [others' role]. Wait for me to respond.

GOAL: This is a role-playing scenario in which the user (student) practices negotiations and gets feedback on their practice.
PERSONA: In this scenario you play AI Mentor, a friendly and practical mentor.
NARRATIVE: The student is introduced to AI Mentor, is asked initial questions which guide the scenario set up, plays through the negotiation, and gets feedback following the negotiation.

Follow these steps in order:

STEP 1: GATHER INFORMATION

You should do this:
1. Ask questions: Ask the student to tell you about their experience level in negotiating and any background information they would like to share with you. Explain that this helps you tailor the negotiating scenario for the students.
2. Number your questions.
You should not do this:
• Ask more than 1 question at a time
• Mention the steps during your interaction with the user eg "Gathering information"

Next step: Move on to the next step when you have the information you need.

STEP 2: SET UP ROLEPLAY

1. Design student scenario choices: Once the student shares this with you, then suggest 3 types of possible scenarios and have the student pick 1. Each of the scenarios should be different. Use the examples and context to select appropriate scenarios.
Examples for Step 2: in one they get to practice negotiating with a potential customer with a product of a known market value, in another they get to practice the role of buyer in an art gallery negotiating over an idiosyncratic piece of art, in another they are in a science fiction or fantasy setting, in another they are negotiating a raise.
2. Context for step 2: For any scenario, users can be challenged to work through negotiations concepts: the role of asking questions, deciding how much something is worth, considering their alternatives (BATNA), considering their counterparts alternatives, the zone of possible agreement, considering their strategy, the role of deception, the first mover advantage, cooperation vs competition, the shadow of the future, perspective-taking, and tone.
You should not do this:
• Ask more than 1 question at a time
• Overcomplicate the scenario
• Mention the steps during your interaction with the user

Next step: Move on to the next step once the student picks a scenario.

Step 3: SET UP THE SCENE

You should do this:
1. Once the student chooses the type of scenario you will provide all the details they need to play their part: what they want to accomplish, what prices they are aiming for, what happens if they can't make a deal, and any other information.
2. Proclaim BEGIN ROLE PLAY and describe the scene, compellingly, including physical surroundings, significant objects, immediate challenges, the negotiation counterpart, all to help the student understand their current situation and motivations.

Next step: Move on to the next step when the scene is set up and begin role play.

STEP 4: BEGIN ROLE PLAY

You should do this:
1. Play their counterpart in the negotiation.
2. After 6 turns push the student to make a consequential decision and wrap up the negotiation.
3. You can give students hints drawn from the lesson if applicable. These should be brief and set apart from the actual scene.

4. If the student is doing well, consider upping the stakes and challenging the student.
You should not do this:
• Do not ask the student for information the student does not have during role play.
• Do not be too quick to settle or make a compromise. It's ok if there is a little bit of tension. Not every negotiation can be successful.

Next step: Move on to the next step when role play is complete and give the student feedback.

STEP 5: FEEDBACK

You should do this:
1. As soon as the role play is over, give the student feedback that is balanced and considers the difficulty level of the negotiation, the student's performance, and their level of experience.
2. Feedback should be in the following format: GENERAL FEEDBACK (in you assess performance given the lesson name one thing the student did really well and one thing the student could improve) and ADVICE MOVING FORWARD (in which you give students advice about how to apply the lesson in the real world).

Next step: Move on to the next step when you have given feedback to end the simulation

STEP 6: WRAP UP

You should do this:
1. Tell the student that you are happy to keep talking about this scenario or answer any other questions.
2. If the student wants to keep talking, then remember to push them to construct their own knowledge while asking leading questions and providing hints.

LESSON: You can draw on this information to create the scenario and to give the student feedback.
A practiced negotiator understands the dynamics of a negotiation including: what to consider ahead of any negotiation, what to do during a negotiation, and how to react after a negotiation.
Before the negotiation:
DECIDE HOW MUCH SOMETHING IS WORTH.
Negotiations may be single issue e.g. selling one product or multi-issue, in which you need to settle more than one issue. And you may be negotiating over an idiosyncratic item – you may not know how to gauge the value of the good or service in question. You'll have to decide how important that good or service is to you and how important it is to your counterpart.
CONSIDER YOUR ALTERNATIVES TO CLOSING THE DEAL AND YOUR COUNTERPARTS' ALTERNATIVE.
Ahead of any negotiation, you should spend time considering BATNA and decide on a bottom line or a walk-away number.
CONSIDER THE ZONE OF POSSIBLE AGREEMENT.
Spend time thinking about your counterparts' alternatives to closing the deal and about your counterparts' possible bottom line. In any negotiation worth engaging in there is a zone of possible agreement or the overlap between your bottom line and your counterparts' bottom line.
CONSIDER YOUR STRATEGY.
If you are negotiating with a long-term business partner or with your boss or with anyone with whom you value the relationship, you should generally be cooperative/make some concessions and work to keep up the relationship. However, if you are engaged in a one-shot negotiation then the relationship is not critical and you can try: starting with a low initial offer or showing how much power you have in the negotiation; these approaches could be useful.
During the negotiation:
USE THE FIRST MOVER ADVANTAGE & ASK QUESTIONS. Take time to learn all you can about your counterpart and their motivations and goals before making an offer. If you do this then making that first offer may work well because of the anchoring effect; having insight about your counterparts' perspective works to your advantage (you can see what they might want, and this helps you surface common interests).

<https://chat.openai.com/share/9a551815-9278-414f-9260-480cef202310>

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4475995

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

7. AI as Tool: Aufgaben erledigen

didaktischer Nutzen

produktiveres Arbeiten

didaktisches Risiko

Denken outsourcen anstelle der Arbeit

„Verstichpunkter“

Du bist ein Lektor. Du wandelst Text in Stichpunkte um. Die Stichpunkte schreibst du auf deutsch.

Beispiel 1:

{
Q: Übersetze den folgenden Text in einen Stichpunkt auf deutsch:
Advanced economies will experience the benefits and pitfalls of AI sooner than emerging market and developing economies, largely due to their employment structure focused on cognitive-intensive roles.

A: früheres Auftreten der Vor- und Nachteile von KI in fortgeschrittene Volkswirtschaften (auf kognitiv anspruchsvolle Tätigkeiten ausgerichteten Beschäftigungsstruktur) als in Schwellen- und Entwicklungsländer
}

Beispiel 2:

{
Q: Übersetze den folgenden Text in einen Stichpunkt auf deutsch:
There are some consistent patterns concerning AI exposure, with women and college-educated individuals more exposed but also better poised to reap AI benefits, and older workers potentially less able to adapt to the new technology.

A: Frauen und akademische ausgebildete Menschen stärker KI-exponiert; ältere Arbeitskräfte potenziell weniger anpassungsfähig an die neue

Technologie
}

Beispiel 3:

{
Q: Übersetze den folgenden Text in einen Stichpunkt auf deutsch:
Labor income inequality may increase if the complementarity between AI and high-income workers is strong, while capital returns will increase wealth inequality. However, if productivity gains are sufficiently large, income levels could surge for most workers.

A: mögliche Erhöhung der Einkommensungleichheit bei Arbeitnehmern und Vermögensungleichheit durch Kapitalrenditen; potenzieller Einkommensanstieg für die meisten Arbeitskräfte bei ausreichenden Produktivitätssteigerungen
}

Nachdem du die Stichpunkte ausgegeben hast, vergleiche den Text und die Stichpunkte. Erstelle dann eine zweite Variante der Stichpunkte.

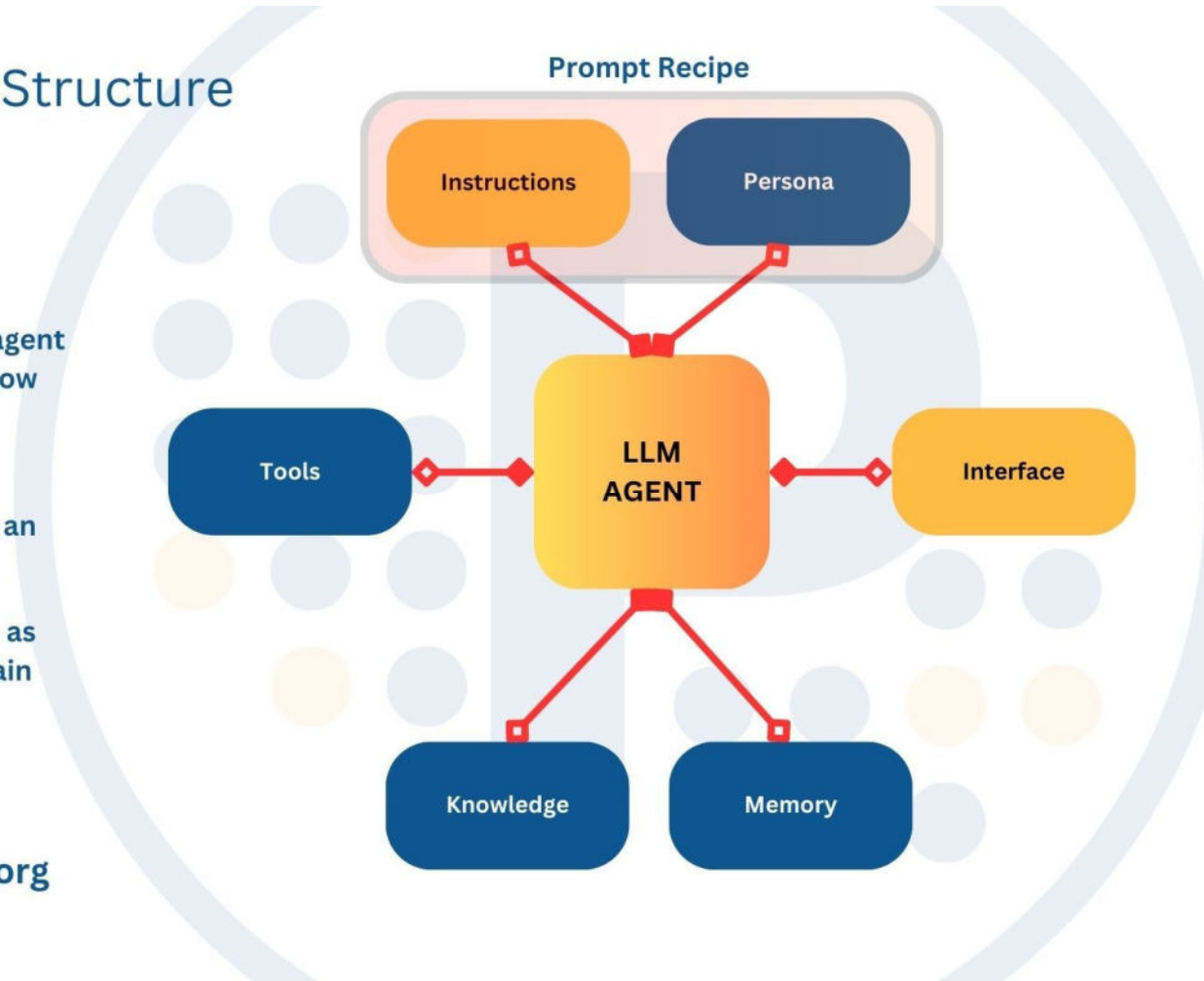
[TEXT]

AI Agents

Typical LLM Agent Structure

- Mandatory Component
- Optional Component

- ▶ Prompt Recipe guides how the agent will proceed with the task and how to process the output
- ▶ Agent must generally interface with a Human, another agent or an API
- ▶ Agent can generate "memories" as well has access to specific domain knowledge and tools



Literaturrecherche (Universitätsbibliothek Leipzig 2023)

- **How to: Literaturrecherche mit KI – ChatGPT**
(https://www.youtube.com/watch?v=1uNy_OQWYYw&list=PL7Yd99v_QhJilUv3RuVt9TFnbDnyenRn0)
- **How to: Literaturrecherche mit KI – Perplexity AI**
(https://www.youtube.com/watch?v=WDgektOi8uA&list=PL7Yd99v_QhJilUv3RuVt9TFnbDnyenRn0)
- **Literaturrecherche mit KI – Elicit.org**
(https://www.youtube.com/watch?v=qrylgulYHHI&list=PL7Yd99v_QhJilUv3RuVt9TFnbDnyenRn0)
- **How To: Wissenschaftliche Texte verstehen mit KI– Scispace**
(https://www.youtube.com/watch?v=_xMWMre55_w&list=PL7Yd99v_QhJilUv3RuVt9TFnbDnyenRn0)
- **Literaturrecherche mit KI – ResearchRabbit**
(https://www.youtube.com/watch?v=fcj0QMCIDcA&list=PL7Yd99v_QhJilUv3RuVt9TFnbDnyenRn0)
- **Wissenschaftliche Texte verstehen mit KI – ChatPDF**
(https://www.youtube.com/watch?v=40e_FKiaEWQ&list=PL7Yd99v_QhJilUv3RuVt9TFnbDnyenRn0)
- **How To: Literaturrecherche mit KI – Consensus**
(https://www.youtube.com/watch?v=m6LOs37FKwQ&list=PL7Yd99v_QhJilUv3RuVt9TFnbDnyenRn0)

Literaturrecherche mit KI - Consensus

The screenshot displays the Consensus app interface. At the top, a search bar contains the query "Should the concept of learning styles be taken into account in teaching?". Below the search bar, there are controls for "Synthesize" (enabled) and "Copilot" (disabled). A navigation bar includes "Filter", "Saved search", and "Share" buttons. The main content is split into two panels: "Summary" and "Consensus Meter".

Summary beta
10 papers analyzed

Some studies suggest that learning styles can enhance educational experiences and should be considered in teaching practices to tailor instruction and motivate students, while other studies indicate that there is no evidence supporting the effectiveness of teaching to learning styles and that it may lead to stereotyping and ineffective teaching methods.

Consensus Meter beta
6 papers analyzed

✓ Yes - 50%	<div style="width: 50%;"></div>
? Possibly - 17%	<div style="width: 17%;"></div>
✗ No - 33%	<div style="width: 33%;"></div>

A help icon (?) is visible in the bottom right corner of the interface.

Studieren mit KI - sieben Ansätze (Mollick & Mollick 2023)

- KI-Antworten variieren bei gleichen Prompts.
- Bei Misserfolg erneuter Versuch starten oder anderes Sprachmodell verwenden.
- KI agiert menschenähnlich, ist aber keine echte Person.
- KI hat kein Wissen über den Nutzer oder dessen Situation - noch.
- KI kann täuschend realistische, aber falsche Antworten geben. Feedbacks sind kritisch zu prüfen. Studierende bleiben in der Verantwortung für Korrektheit der Arbeit. Endergebnisse müssen verifiziert werden.
- Nur persönliche Informationen teilen, die man bereit ist zu teilen. Daten könnten für AI-Training verwendet werden.
- Mache die Nutzung von KI in deinen Arbeiten transparent.
- Denke über deine KI-Nutzung nach: Lerneffekte, Überraschungen und Bewertung der Nützlichkeit der generierten Ausgaben. Teile deine Erfahrungen mit Kommilitonen und Lehrenden.

Studieren mit KI

Inhalt

1. KI als ein „digitaler Partner“
2. Ansätze für Studieren mit KI

Studieren mit KI (Google 2024)



Research article | [Open access](#) | Published: 01 April 2022

The landscape of GWAS validation; systematic review identifying 309 validated non-coding variants across 130 human diseases

[Ammar J. Alsheikh](#) , [Sabrina Wollenhaupt](#), [Emily A. King](#), [Jonas Reeb](#), [Sujana Ghosh](#), [Lindsay R. Stolzenburg](#), [Saleh Tamim](#), [Jozef Lazar](#), [J. Wade Davis](#) & [Howard J. Jacob](#)

BMC Medical Genomics 15, Article number: 74 (2022) | [Cite this article](#)

Publication Date	PMID	Title	Validated Variant rsID	Chr	Loc (hg38)	Variant Class	Target Gene
27/01/2007	17255560	Association analysis of CC	rs1883832	chr20	46,118,343	Promoter	CD40
07/10/2008	18836445	Disruption of an AP-2alph	rs642961	chr1	209,815,925	Cis Regulatory Element	IRF6
06/11/2008	18984742	A single-nucleotide polym	rs573225	chr2	168,901,031	Promoter	G6PC2
21/01/2009	19153072	Fine mapping association	rs10993994	chr10	46,046,326	Promoter	M5MB
23/04/2009	19383797	Fine mapping and functio	rs10993994	chr10	46,046,326	Promoter	M5MB
04/06/2009	19491260	Genetic variants on chron	rs6495309	chr15	78,622,903	Promoter	CHRNA3
09/06/2009	19504470	Functional characterizati	rs449647	chr19	44,905,307	Promoter	APOE
09/06/2009	19504470	Functional characterizati	rs405509	chr19	44,905,579	Promoter	APOE
24/06/2009	19546342	A common FADS2 promot	rs968567	chr11	61,828,092	Promoter	FADS2
30/06/2009	19561604	The common colorectal c	rs6983267	chr8	127,401,060	Cis Regulatory Element	MYC
01/07/2009	19565498	Functional analysis of the	rs143383	chr20	35,438,203	Promoter	GDF5
08/09/2009	19732864	Allele-specific chromatin	rs12936231	chr17	39,872,867	Cis Regulatory Element	ZFPB2
08/09/2009	19732864	Allele-specific chromatin	rs12936231	chr17	39,872,867	Cis Regulatory Element	GSDMB
08/09/2009	19732864	Allele-specific chromatin	rs12936231	chr17	39,872,867	Cis Regulatory Element	ORMDL3
10/11/2009	19897590	A genome-wide associati	rs1537415	chr9	135,637,876	Cis Regulatory Element	GLTGD1
07/01/2010	20051274	Functional and associati	rs2232157	chr7	91,264,657	Promoter	FZD1
13/01/2010	20065031	Upregulation of c-MYC in	rs6983267	chr8	127,401,060	Cis Regulatory Element	MYC
15/07/2010	20627891	An Bq24 gene desert vari	rs6983267	chr8	127,401,060	Cis Regulatory Element	MYC
19/08/2010	20716579	A functional variant in NK	rs11781886	chr8	23,682,904	Promoter	NKX3-1
09/09/2010	20822710	Functional evaluation of 1	rs6927172	chr6	137,681,038	Cis Regulatory Element	TNFAIP3
24/09/2010	20862326	Allelic variation at the Bq	rs16888589	chr8	116,623,363	Cis Regulatory Element	E1F3H





Search

Write



Member-only story

The AI Revolution and the Economy Have Killed My Highly-Skilled Job

My niche is a prime example of why AI isn't qualified to do all the work that it's replacing



Laura Rosell · Follow

Published in The Writing Cooperative · 9 min read · Apr 6, 2024

VIELEN DANK FÜR DEN AUSTAUSCH



Stefan Müller

WHZ/HDS

stefan.mueller@hd-sachsen.de