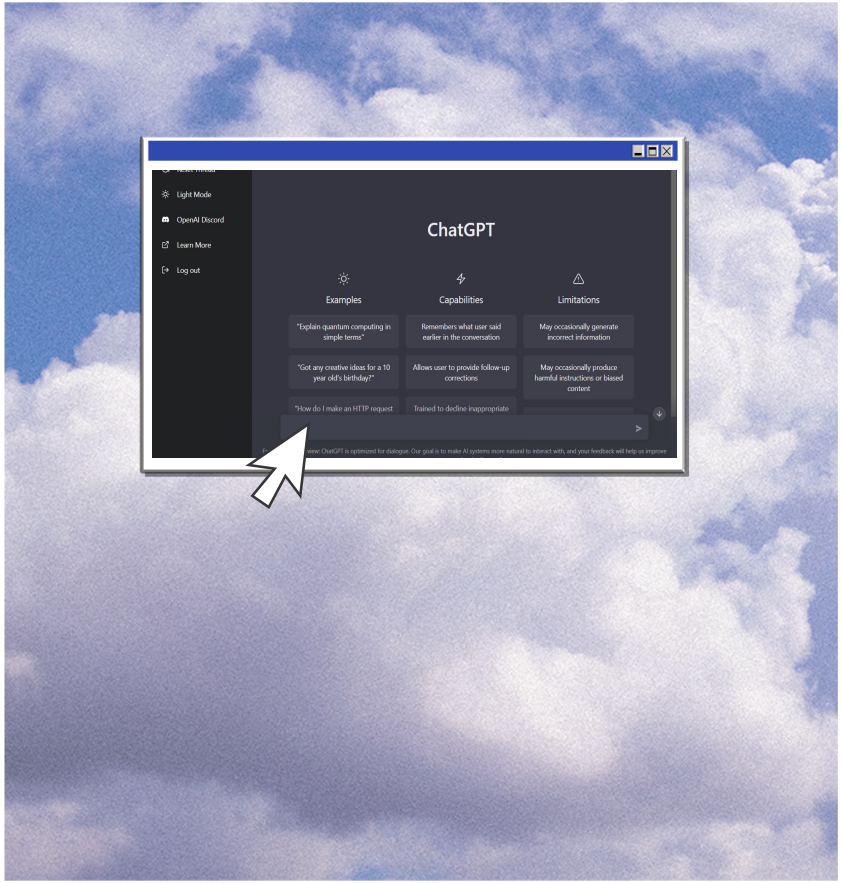
KI-Tools in der Hochschullehre

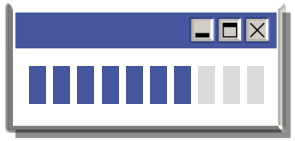
Ergebnisse einer studentischen Untersuchung



Benedikt Renner

HOCHSCHULE DER MEDIEN

Agenda



I.

Ergebnisse

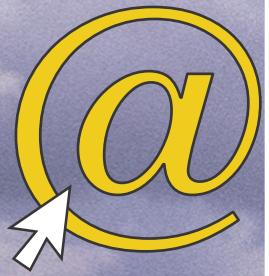
II.

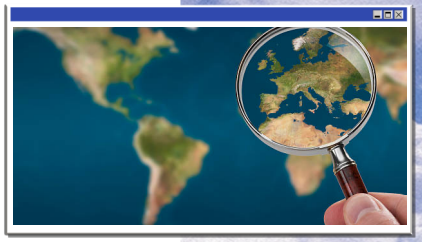
Exkurs

Basics GPT

I.

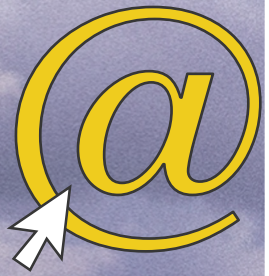
Ergebnisse





II.

Exkurs: Basics GPT



Generative Pre-trained Transformer

Generative Pre-trained Transformer

Quelle: https://bea.stollnitz.com/blog/how-gpt-works-technical/

Generative Pre-trained Transformer

Token?

Generative Pre-trained Transformer

Was ist Wetter?

Was ist Wetter? Zust

Was ist Wetter? Zustand

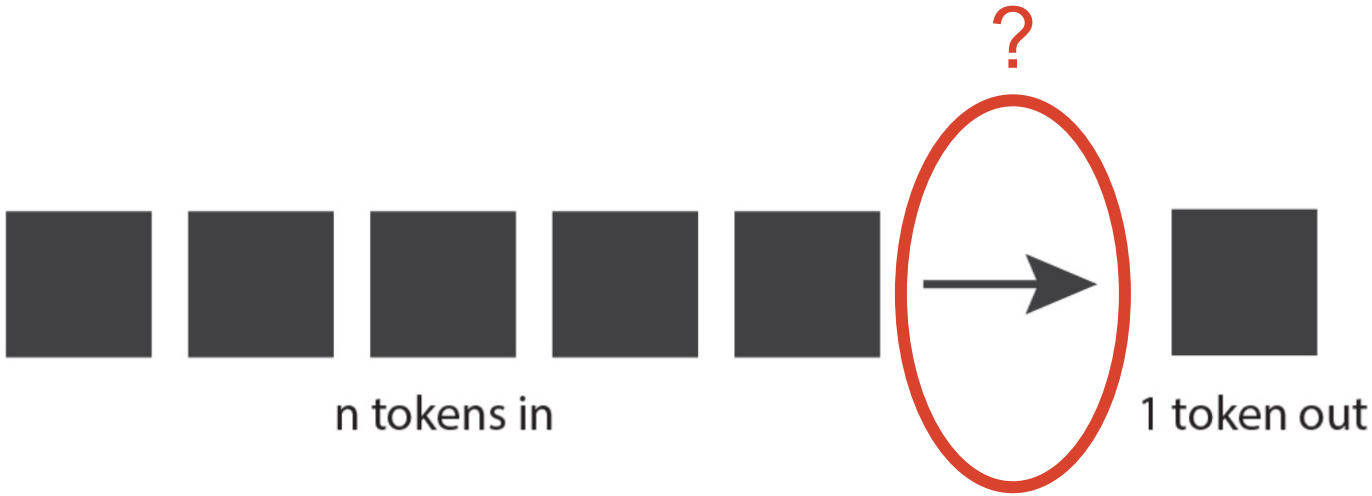
Was ist Wetter? Zustand der

Was ist Wetter? Zustand der Atmos

Was ist Wetter? Zustand der Atmosphäre an einem Ort.

Quelle: https://platform.openai.com/tokenizer

Generative Pre-trained Transformer



Quelle: https://bea.stollnitz.com/blog/how-gpt-works-technical/

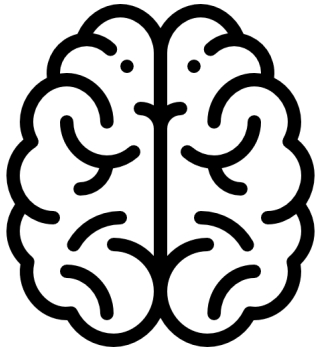
Generative Pre-trained Transformer

Katze jagt → laufen

Katze jagt → Baum

Katze jagt → Maus

Neuronales Netz



Generative Pre-trained Transformer

Katze jagt

n tokens in

	p
laufen	0.001
Baum	0.01
Maus	0.7
Vogel	0.69
graue	0.67

Maus

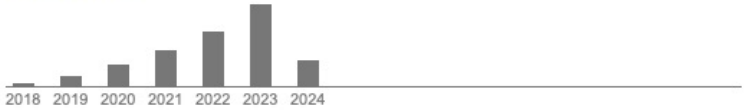
1 token out

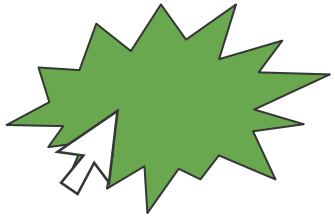
Quelle: https://bea.stollnitz.com/blog/how-gpt-works-technical/

Generative Pre-trained Transformer

Attention is all you need

Authors	Ashish Vaswani, Noam Shazeer, Niki Parmar, Jakob Uszkoreit, Llion Jones, Aidan N Gomez, Łukasz Kaiser, Illia Polosukhin
Publication date	2017
Journal	Advances in neural information processing systems
Volume	30
Description	The dominant sequence transduction models are based on complex recurrent orconvolutional neural networks in an encoder and decoder configuration. The best performing such models also connect the encoder and decoder through an attentionm echanisms. We propose a novel, simple network architecture based solely onan attention mechanism, dispensing with recurrence and convolutions entirely. Experiments on two machine translation tasks show these models to be superiorin quality while being more parallelizable and requiring significantly less timeto train. Our single model with 165 million parameters, achieves 27.5 BLEU onEnglish-to-German translation, improving over the existing best ensemble result by over 1 BLEU. On English-to-French translation, we outperform the previoussingle state-of-the-art with model by 0.7 BLEU, achieving a BLEU score of 41.1.
Total citations	Cited by 117865





„A calculator actually performs the calculations required in order to reach an answer. Generative AI does not perform calculations, it does not go through the learning, it does not engage in thinking. ChatGPT and similar tools make predictions; they guess.“

(Lodge et al 2023)

Quelle: Lodge, J. M., Thompson, K., & Corrin, L. (2023). Mapping out a research agenda for generative artificial intelligence in tertiary education. *Australasian Journal of Educational Technology*, *39*(1), 1–8. https://doi.org/10.14742/ajet.8695

Also...

HOCHSCHULE
DER MEDIEN

Danke!

Benedikt Renner
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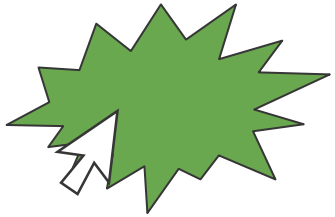

Gottschling, S.; Seidl, T.; Vonhof, C. (2024): Nutzung von KI-Tools durch Studierende. Eine exemplarische Untersuchung studentischer Nutzungsszenarien. In: Die Hochschullehre (im Druck).