

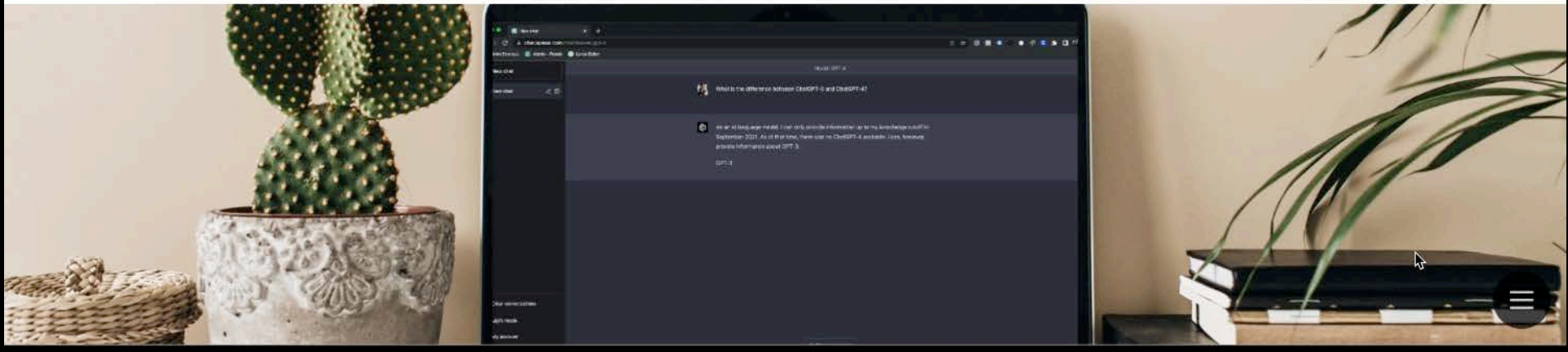


CEBS SPRACHENFORUM | 25.10.2023 | BAD HOFGASTEIN

# Ich bin ein **K**, holt mich hier raus.

KI und die Rolle der Sprachlehrkraft.

Thomas Strasser | Pädagogische Hochschule Wien | thomas.strasser@phwien.ac.at | @bildungshipster





SPRACHEN  
FORUM



HeyGen

A man's face is partially obscured by a large, billowing cloud of white smoke or steam. The entire scene is overlaid with a semi-transparent red filter. In the center, the word "Wow!" is written in a large, bold, white sans-serif font, enclosed within a dark red rectangular box.

**Wow!**

**CEBS  
Sprachenforum  
2018**

**You heard it first!**



# Ruhe bewahren?





AP photo

**Elementary school teachers picket against use of calculators in grade school**  
The teachers feel if students use calculators too early, they won't learn math concepts

# Math teachers protest against calculator use

By JILL LAWRENCE

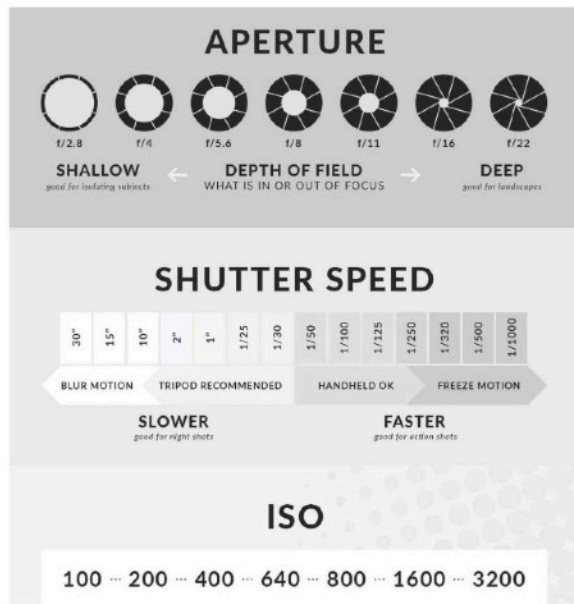
"My older kids don't pay any strate," he said. "Teachers are



Definition von  
Wow?



# Beispiele Beautiful.ai



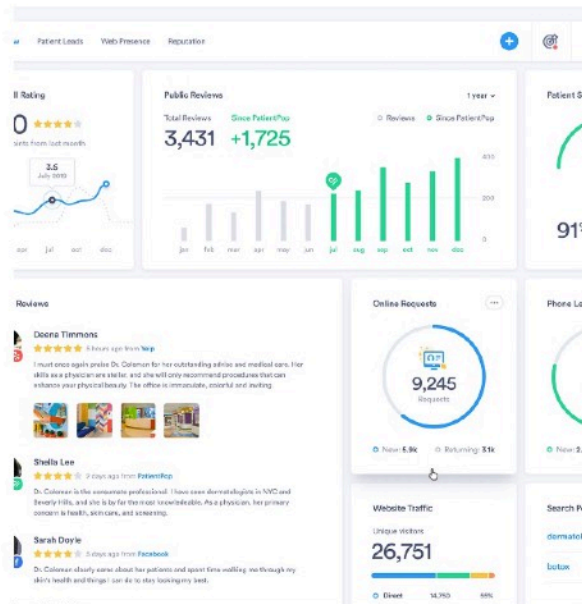
## Beautiful Infographic

This infographic uses a clean, minimalist design with pops of color to clearly visualize data.



## Modern Presentation Template

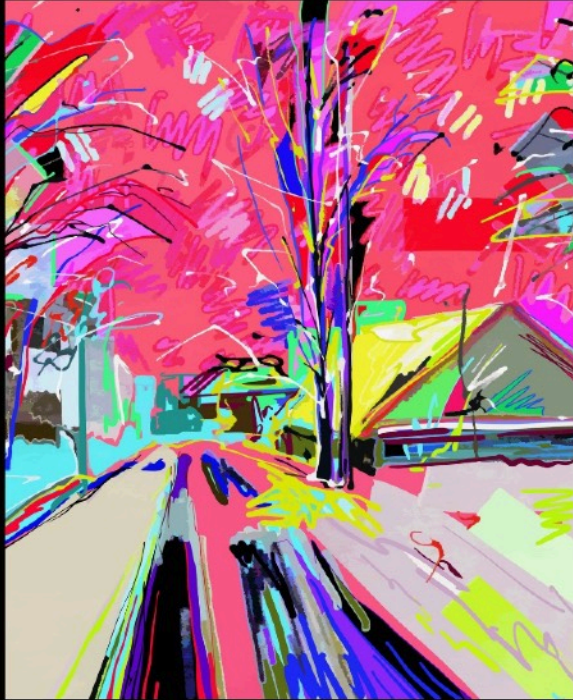
The sleek gradients and large font in this presentation template create an elegant, contemporary look.



## Vibrant Dashboard

The vivid colors and intuitive layout in this dashboard make complex data easy to digest.

# Midjourney **Automatisierte Bildgeneratoren**



**Kunstwerke**



**Futuristische Städte**



**Mystische Landschaften**



"Ein persönliches Porträt eines Lehrers, der an einem Schreibtisch in einem Heimbüro sitzt und mit KI-Tools arbeitet, mit einem unscharfen Hintergrund aus Bücherregalen. Verwenden Sie eine Hasselblad-Kamera mit einem 85-mm-Objektiv bei Blende 1,2 und weichem Sonnenlicht, das auf das Motiv fällt, um die Kreativität und Intelligenz der Person einzufangen. - v5 "



Midjourney prompt:  
<ein Lehrer in trendiger  
Kleidung, der ein  
hyperrealistisches Selfie  
macht, GoPro-Kamera, der mit  
einem KI-Roboter durch das  
Brandenburger Tor läuft ar 16:9  
v 5.1 style raw>

# Stable Diffusion Playground

Just enter your prompt and click the generate button.  
No code required to generate your image!

Due to the large number of users, the server may experience problems. If you encounter an error, please

## Stable Diffusion Web

The world's best image generator with unbelievable image quality. <https://stablediffusionweb.com>

Prompt

Enter your negative prompt here

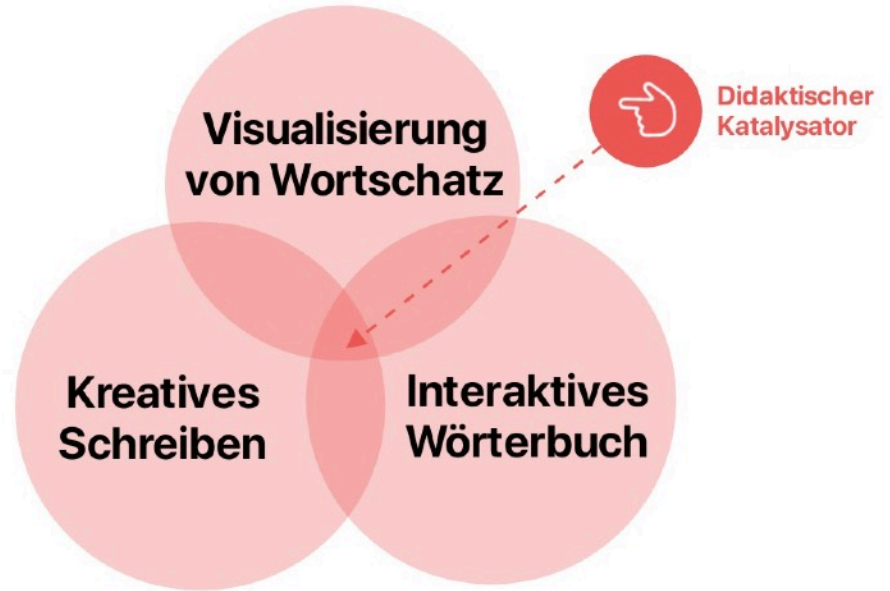


Styles

cinematic-default

Advanced Options

# Potenziale für den FSU.



# Caption KI-basierter Video/Audioübersetzer.



Kurzvideos

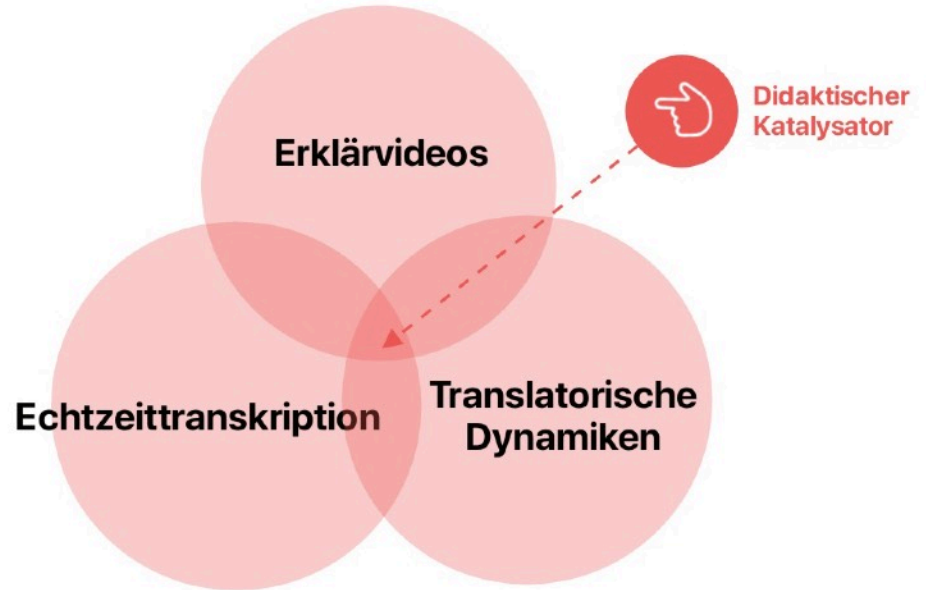


Reels

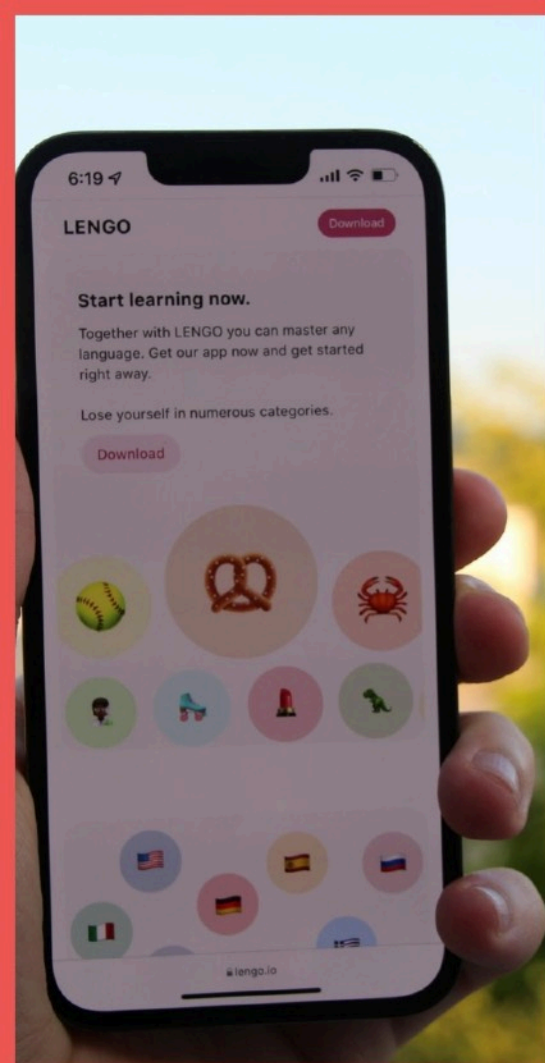


Lehrvideos

# Potenziale für den FSU.





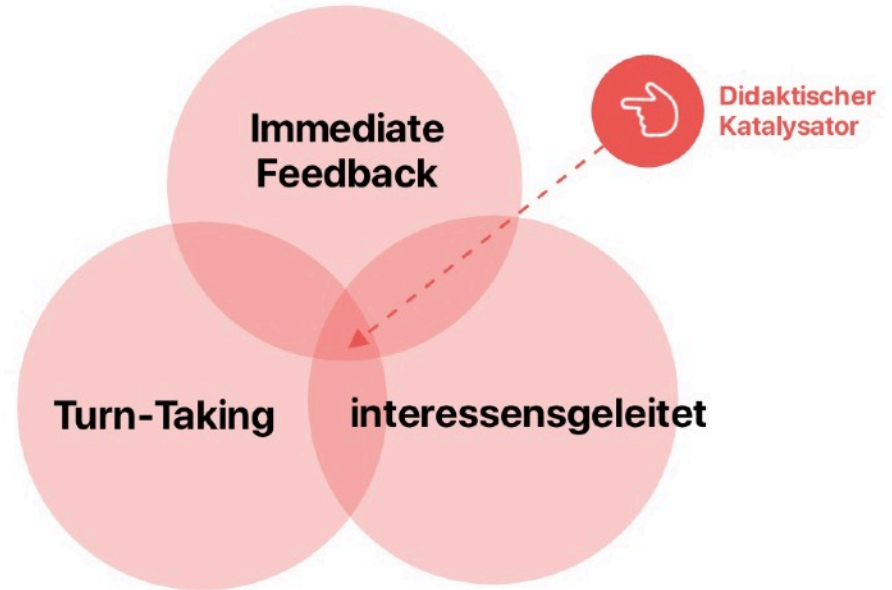


# KI-basierte Sprachlernapps.

Hey, I am David and I am a chef.  
Are you passionate about food?



# Potenziale für den FSU.



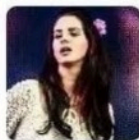
A man's face is partially obscured by a large, billowing cloud of white smoke or steam. The entire scene is overlaid with a semi-transparent red filter. In the center, the word "Wow!" is written in a bold, white, sans-serif font, enclosed within a dark red rectangular box.

**Wow!**

A close-up photograph of a man's face, showing a frustrated or angry expression with furrowed brows and a wide-open mouth as if shouting. The image is overlaid with a semi-transparent dark red rectangle containing white text. The background is a solid dark red color with a pattern of small, dark triangles scattered across it.

**Wäh!**


[umgangsprachlich für nicht gut]



Lana Del Rey Crew  
@LanaDReyCrew



Lana Del Rey with a fan in France

Traduit depuis : anglais par  bing

Lana Del Rey avec un ventilateur  
en France





DeepL

Übersetzer

Linguee

DeepL für Windows kostenlos

Anmelden



Übersetze **Deutsch** ▾

Übersetze nach **Englisch (US)** ▾

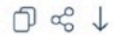
OFF Glossar

der, die, das, wieso, weshalb, warum



the, the, the why, why, why

Dokument übersetzen





“German A(I)ngst.”

\*das immer währende Vorurteil



A close-up photograph of a hand tearing a piece of white paper. The paper is divided into two sections. The upper section, held by the hand, has the word "GOOD" written on it in a simple, hand-drawn font. The lower section, which is being pulled away, has the word "BAD" written on it in the same font. The background is a plain, light-colored surface. The entire image is framed by a red border.

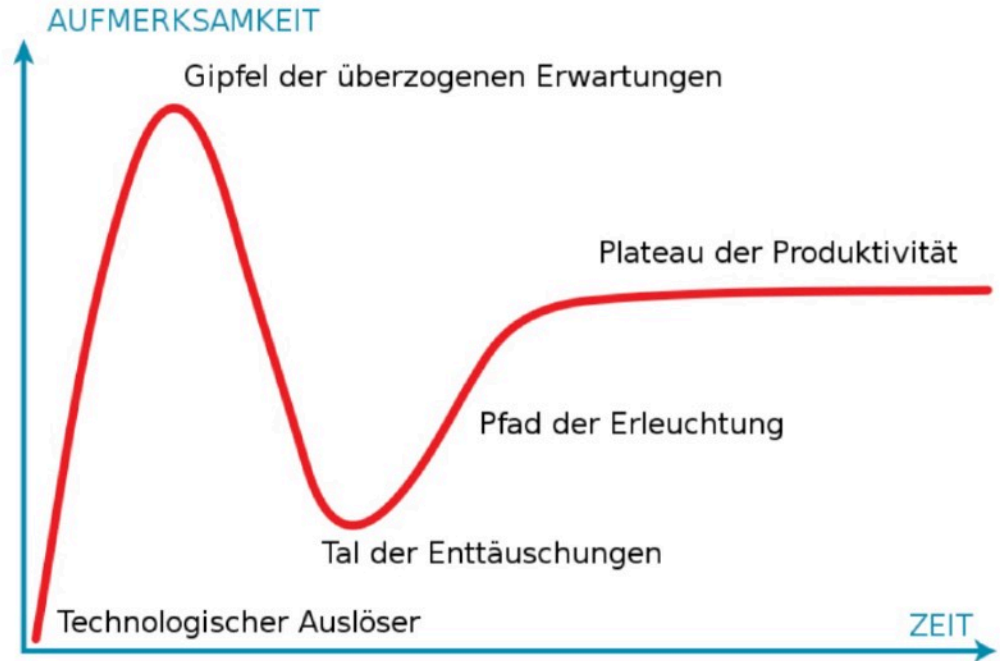
# Weniger s/w-Malerei

mehr professionell-pädagogische Haltung.

Hype-Cycle Theorie  
(Gartner 2020)

# Das Plateau der Produktivität.

als Indikator einer  
professionellen Haltung?



• <https://de.wikipedia.org/wiki/Hype-Zyklus>

**Wissenschaft**

**> Wow.**

**auch bzw. gerade bei KI.**



A silhouette of a person standing on a hill, looking up at a vast, red-hued starry sky. The person is positioned in the lower center of the frame, with their back to the viewer. The sky is filled with numerous small, bright red stars, creating a dense field of light. The overall atmosphere is contemplative and awe-inspiring.

**Beobachtbarkeit des  
positiven Effekts.**

# **Schwache KIs, starke Performanz? Form und Wirkung von KI-gestützten Erklärvideos im Englischgrammatikunterricht der Sekundarstufe I**

**Thomas Strasser<sup>1</sup>**

The primary goal of this contribution is to show to what extent certain grammatical skills of lower secondary English learners can be improved by using AI-powered visualizer tools compared to only analogue, teacher-centered grammar introduction processes.

The items to be investigated were syllabus-specific grammar topics (past simple vs. present perfect simple). The focus group was exposed to AI-powered visualizer tools and the control group received analogue teacher input. The quantitative measurement method found that the focus groups did not achieve a significantly better test score in the post-test than the control groups, who received analogue teaching input under almost identical conditions. However, the evaluated data suggest that especially learners with a lower language level (based on C-test measurements) achieved a significantly better result in the post-tests after the AI-video exposition than those learners with a similarly low language level who received the analog teacher input.

## Narrow AI-Powered Visualization Facilitation Tools in Foreign Language Learning: A Visual Approach Promoting Equal Opportunities in Foreign Language Grammar Teaching

Thomas Strasser

### Introduction

#### A Multitude of Definitions

Digital technologies have been a prominent part of the academic discourse, especially in education (Belshaw 2011; Cunningham et al. 2019; Toh et al. 2013). Especially during such complex processes like learning and teaching a foreign language, it is of great relevance to put digitization into a more concise conceptual framework (Garone et al. 2022). Digitization derives from the Latin word *digitus* (finger). Therefore, one can assume that digitization tries to measure something in particular (Grünberger et al. 2017). But what needs to be measured, especially in

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T. Strasser (✉)

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## Facilitating Visual Socialities Processes, Complications and Ethical Practices

Edited by  
Casey Burkholder  
Joshua Schwab-Cartas  
Funké Aladejebi





Edited by  
HEINZ ANTOR  
JULIA HOYDIS  
Founding Editor  
RÜDIGER AHRENS

Universitätsverlag  
WINTER  
Heidelberg



TORBEN SCHMIDT AND THOMAS STRASSER

## Artificial Intelligence in Foreign Language Learning and Teaching: A CALL for Intelligent Practice

### 1. Introduction

Practice and focus on form play a crucial and decisive role in foreign language learning. But what would an intelligent, adaptive foreign language learning environment look like if all students could individually practice their language skills with exercises tailored to their individual skill levels, interests, and motivation? How could all learners be supported and challenged according to their abilities, so that they all have the opportunity to achieve specific learning goals in a self-directed manner? And how could digital media contribute to the kind of learning that adapts to the individual student's needs in heterogeneous foreign language classrooms?

In the past years, digital technologies have become scientific and practical focal points in the English language teaching (ELT) world. Whether digital media [are] "friend or foe" (Grimm et al. 2015), technology-enhanced language learning (TELL) has been part of an international discourse, varying between "euphoric proposals," "pessimistic stances," and "opinions which stress that the risks of digital media need to be addressed" (2015, 210). Regardless of general TELL, research studies have shown that "technology can influence the processes and outcomes of education, and many countries are investing in technological support for teaching and learning" (Paiva and Bittencourt 2020, 448). The dynamic development of new technologies and the concomitant digital transformations result in significant challenges both for society as a whole and at all levels of the education system.

One of the latest technological developments, which raises more and more interest in connection with these questions, is artificial intelligence (AI). There are many

**Haltung korreliert mit Performanz.**

**“ „[...] main predictors of teachers' classroom technology use [...]” ”**



(Hsu, 2016 zitiert nach Miller et al., 2003, S. 37)



# Positive Grundhaltung

**“ Die meisten befragten Lehrpersonen gaben an, digitalen Medien positiv gegenüber zu stehen und diese häufig in der Unterrichtspraxis und zur Unterrichtsvorbereitung zu nutzen. ”**

# Positive Grundhaltung

**“ „[...] Diskrepanz zwischen kommunizierter Haltung und der mangelnden handlungspraktischen Umsetzung [...]” ”**

Brinda et al (2021)

# Frankfurt Dreieck





# KI- Kompetenzen (AI-literacies).

Long & Magerko (2020)

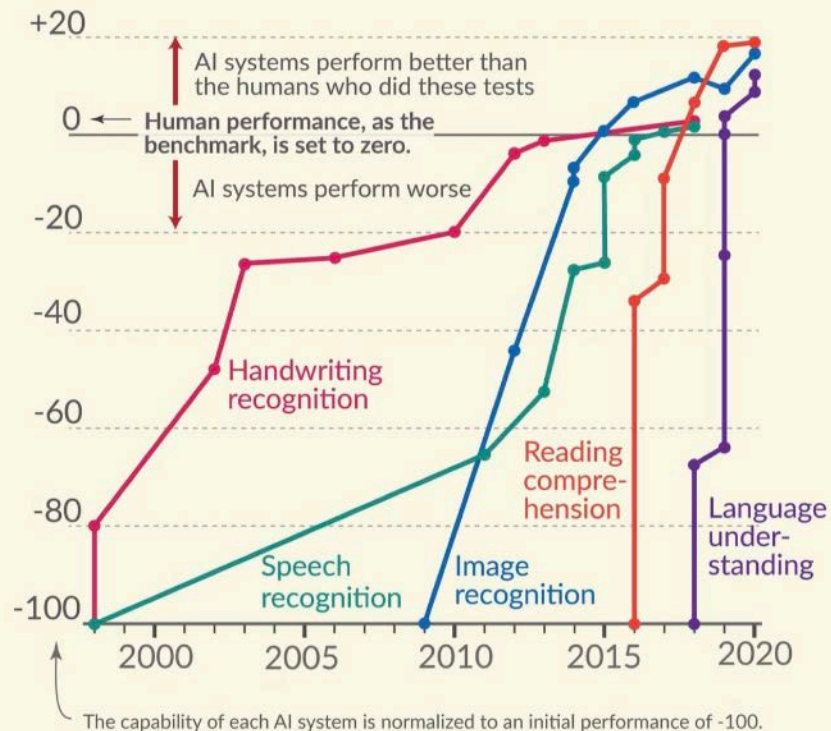
# AI-literacies

- 1 | Design Consideration 1: Explainability**  
Erklärpotenziale von Bildgeneratoren nutzen.
- 2 | Kompetenz 10: Rolle des Menschen (fine tuning)**  
Chat-GPT mit ständigen Fragen verbessern. Turn-taking.
- 3 | Kompetenz 13: Inhalte fachlich prüfen**
- 4 | Design Consideration 2: Embodied Interaction (learner agency)**  
Sprachlernende befähigen, mit KI-Tools individuell zu lernen
- 5 | Design Consideration 15: Niederschwellige Didaktisierung**



# Language and image recognition capabilities of AI systems have improved rapidly

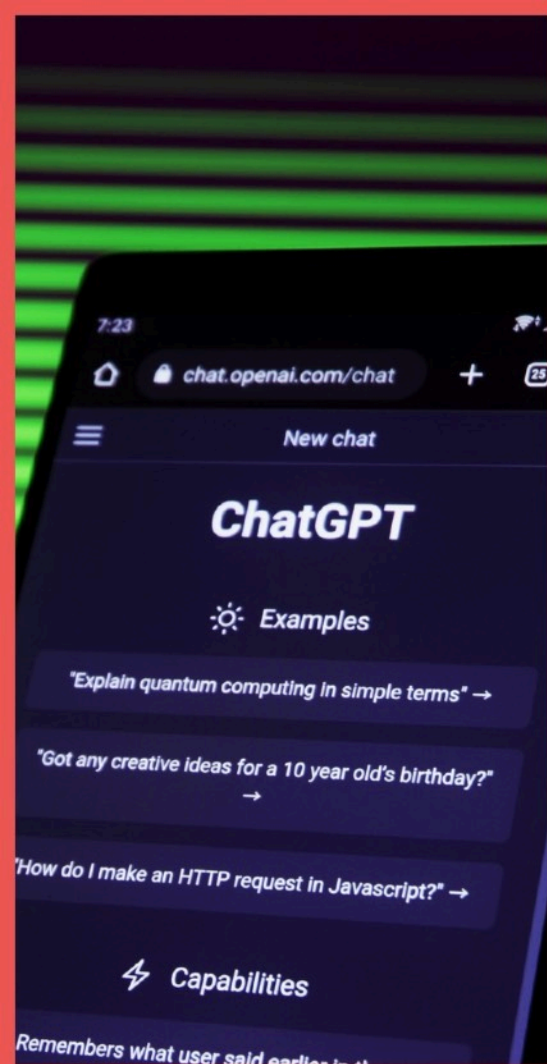
Test scores of the AI relative to human performance



Source:  
Kiela et al. (2021) Dynabench: Rethinking Benchmarking in NLP

[OurWorldInData.org/artificial-intelligence](https://OurWorldInData.org/artificial-intelligence) • CC BY

Our World  
in Data



Checken  
statt  
Cheaten.



IK

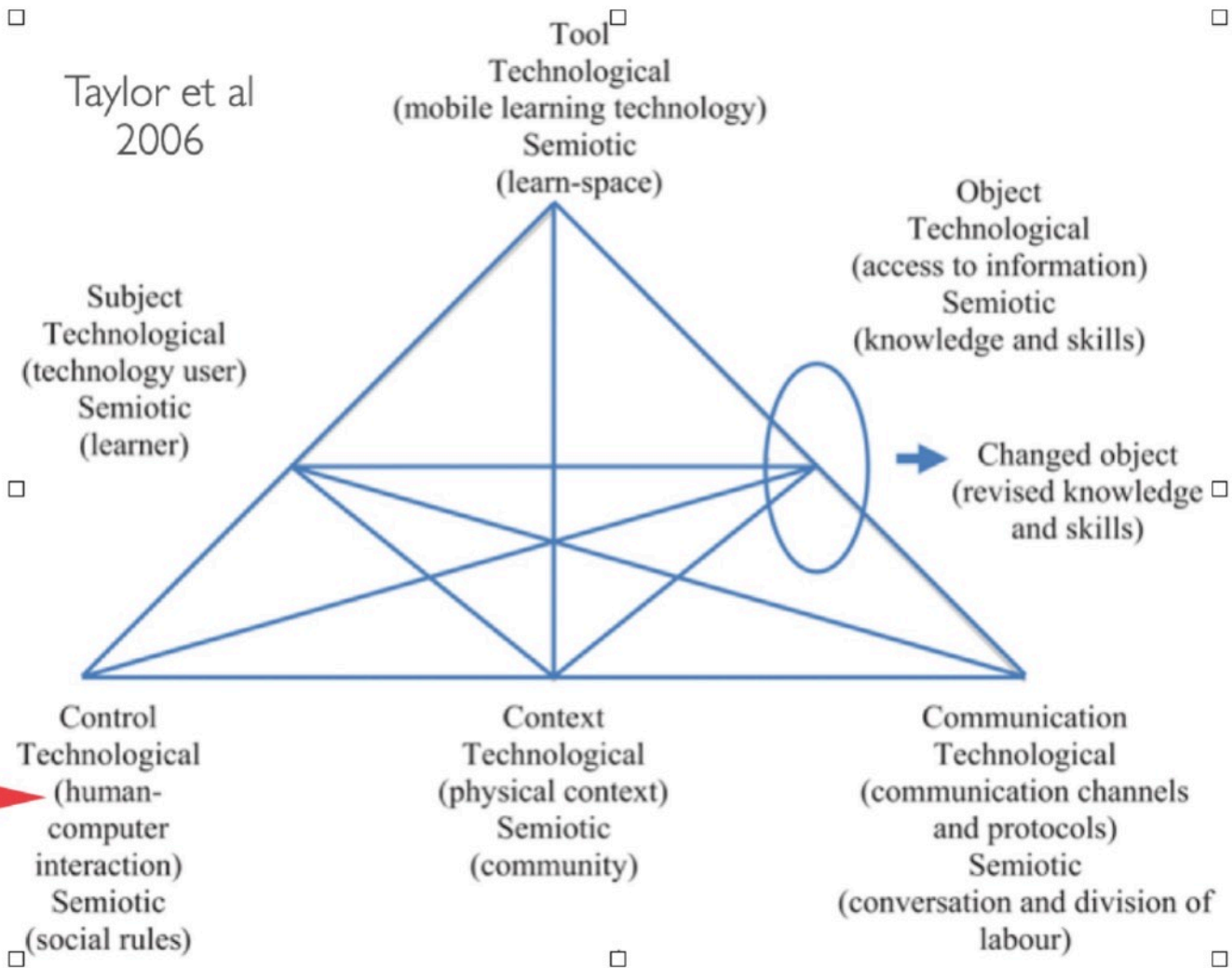


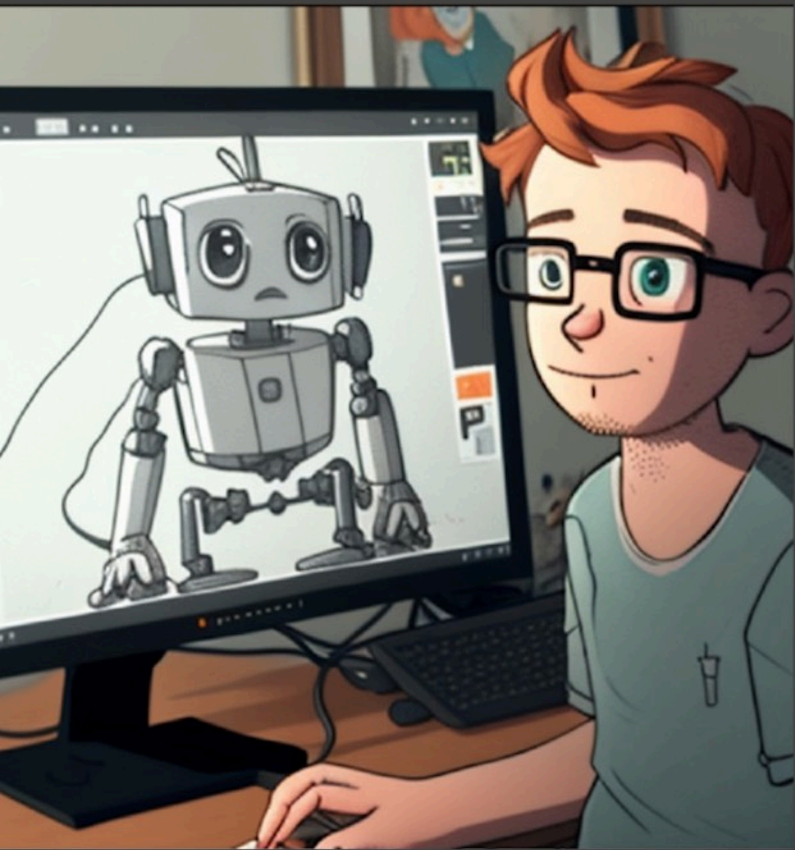
A person wearing a dark jacket and a cap is shown in profile, holding a magnifying glass over a glowing blue and purple background. The person's hands are positioned as if they are examining something. The background has a soft, ethereal glow with vertical bands of light. The text 'Prompt engineering.' is overlaid on the image, with 'Prompt' in red and 'engineering.' in white.

**Prompt**  
**engineering.**



**Der Bot.**





## AI Tutor Personalization Options

This section outlines the various configuration options available to students using the AI Tutor. These options can be modified to customize the learning experience.

Configuration	Options
Depth	<ol style="list-style-type: none"><li>1. Surface level understanding</li><li>2. Expanded understanding</li><li>3. Detailed analysis</li><li>4. Practical application</li><li>5. Advanced concepts</li><li>6. Critical evaluation</li><li>7. Synthesis and integration</li><li>8. Expert insight</li><li>9. Specialization</li><li>10. "Cutting-edge research"</li></ol>
Learning Styles	Sensing, Visual* (requires plugins), Inductive, Active, Sequential, Intuitive, Verbal, Deductive, Reflective, Global
Communication	Stochastic, Formal, Textbook, Layman, Storytelling, Socratic, Humorous
Tone Styles	Debate, Encouraging, Neutral, Informative, Friendly
Reasoning Frameworks	Deductive, Inductive, Abductive, Analogical, Casual
Update Rate	Check, Don't check

# Lerner\*innenzentriertes Prompt Engineering im FSU.



Interaktion/Turn-Taking



Wortschatzarbeit



Kontextualisiertes  
Grammatikverständnis



Lesefähigkeiten



Immersives Lernen?



Aussprache



Schreibpraxis



Prüfungsvorbereitung?

# Potenziale KI-basierter Chatbots\*.



"Safe Place" für Üben  
und Scheitern.



Kontextualisiertes  
Lernen



Kompetitiver Drill



Sofortiges Feedback

\*Schmidt (2015);Ibrahim (2017); Strasser (2023)

Ich möchte über <X> lernen.



Phil

Bitte verfasse ein ehrliches  
und konstruktives  
Feedback zu <X>



Ayse

Wie formt man  
<Grammatik>?



Tanja

Wie funktionieren die Regeln  
von <Grammatikitem>?



Anabelle

Habe ich <Grammatikitem>  
richtig gebildet?



Fredrik

Mache/erstelle/schreibe/...  
<kreativer Katalysator>



Rachel



# Schock oder Chance?



# Herausforderungen für Bildung (vgl. Döbeli 2023)



Prompt Engineering  
als Skill?



Höheres kognitives  
Anspruchsniveau.



Medienkompetenz  
Immer mehr und wichtiger



Mehr Mündlichkeit?



Mangelnde  
Motivation?



**A**

### **ANNEHMEN**

des wechselseitigen  
Mensch-Maschine-  
Diskurses

Menschen interagieren mit  
der KI (u. a. ChatGPT) und  
reflektieren/produzieren  
digitale Artefakte

ChatGPT wird als dialogische  
und dynamische Anwendung im  
wechselseitigen Mensch-  
Maschine-Diskurs genutzt.



**C**

### **CRITICAL THINKING**

bzw. Kritisches  
Hinterfragen  
von Daten

Von der KI produzierte digitale  
Artefakte können nicht automatisch  
für bare Münze genommen werden.

Allgemeine bzw. hinterfragenswerte  
Inhalte werden für die jeweilige  
Sequenz vom Lernenden angepasst  
und auf ethische Kompatibilität  
geprüft.



**E**

### **ERKENNEN**

der Erklärpotenziale  
von KI

KI-basierte Dialogsysteme sowie  
Visualisierungs- und Schreib-  
assistenten unterstützen bei  
Entscheidungsfindungsprozessen.

KI-Visualizern (u. a. Midjourney)  
oder Chatbots werden eingesetzt,  
um Kontexte und komplexe  
Sachverhalte zu verstehen.<sup>1</sup>



**“Der Fokus liegt dabei auf der ko-kreativen Erarbeitung von Redemitteln und Sprachhandlungsstrategien [...]. Dabei werden KI-gestützte Technologien vor allem zur Vergewisserung und als sprachliche Orientierungshilfe eingesetzt: Die künstliche Intelligenz unterstützt die Lernenden in einem autonomen, teils kollaborativen, partizipativen und von der Lehrkraft begleiteten Schreibprozess.“**

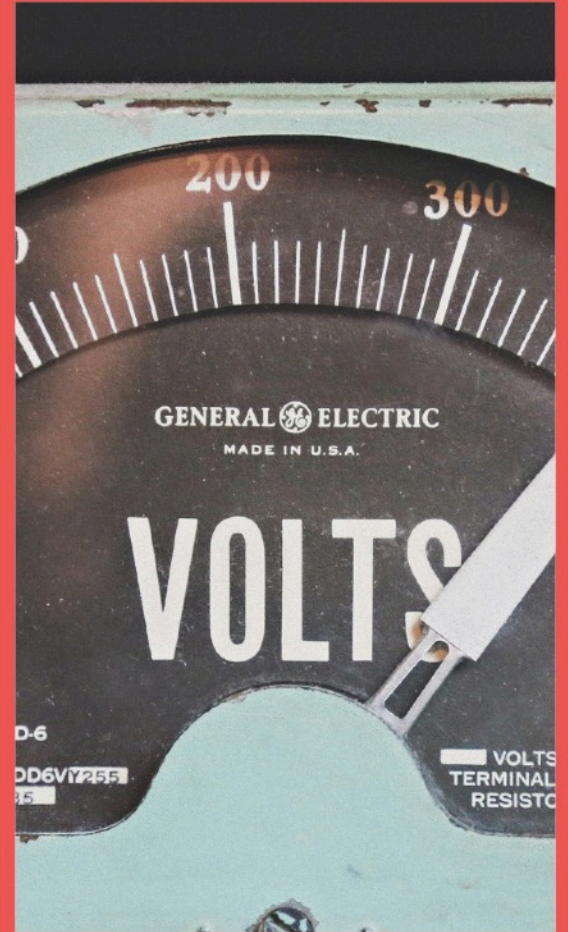
Strasser & Schmidt 2023 (FUE, S. 22)

# Ethische KI- Leitlinien

für (Sprach)lehrende

***“machine usefulness’,  
which emphasizes  
the ability of  
computers to  
augment human  
capabilities”***

Acemoglu & Johnson 2023





OK





**KI**




IK







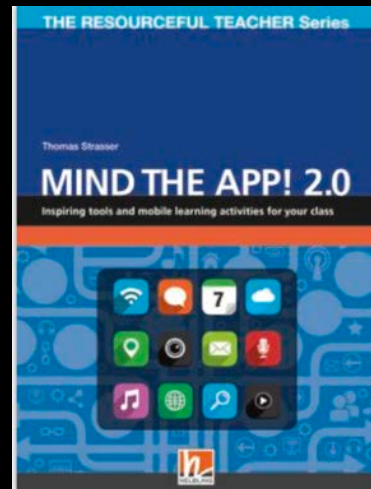
# {thx}

Thomas Strasser | Hochschulprofessor | Univ.-Lektor |  
Mag. Dr. | Pädagogische Hochschule Wien.

 [bildungshipster.online](http://bildungshipster.online)

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 [thomas.strasser@phwien.ac.at](mailto:thomas.strasser@phwien.ac.at)



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