

Chatting about GPT

Challenges and Opportunities for ELT

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Outline




01 About ChatGPT

02 Detecting text generated by ChatGPT

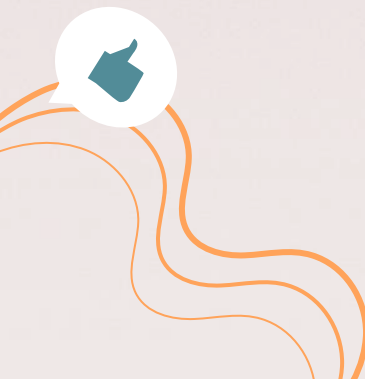
03 ChatGPT's potential for teacher support

04 Workshop



01

What is ChatGPT?



GPT – Large Language Model

- designed to generate texts that appear to be produced by human authors
- probability-based
- GPT = **G**enerative **P**re-**T**rained **T**ransformer
- GPT-3.5

ChatGPT – Chatbot

- AI chatbot based on GPT
- uses NLP to generate text in response to user prompts (Mindner et al., 2023)
- trained using feedback by humans
- sometimes gives answers that sound plausible but are incorrect

Which language tasks can ChatGPT perform?



translation



summarizing



answering questions



text generation



02

Detecting text generated by ChatGPT



Detecting ChatGPT by Layout and Font


Punctuation: Vertical apostrophes and quotation marks (even when copied)

- [...] perceived as "mad" or "possessed."
(vs. “mad” or “possessed”)
- [...] the struggle between one's human and animal instincts.
(vs. one's human and animal instincts)



Detecting ChatGPT by layout and font

List structures with **capitalized headings**: What are cultural theories about werewolves?

1. **E**uropean **F**olklore: In European folklore, particularly in regions like France and Germany [...]
 2. **S**piritual and **M**agical **O**rigins: Some cultural theories suggest that the concept of the werewolf may have roots in [...]
 3. **P**sychological and **S**ymbolic **I**nterpretations: From a psychological perspective, the werewolf myth can be interpreted as [...]
- 

Verbatim repetition of titles and key words

Prompt: [...]

flexibility, personalized learning experiences, and cost-efficiency

In recent years, online learning has gained immense popularity, and for good reason. This modern approach to education offers a myriad of benefits that make it a superior choice compared to traditional classroom learning. Among the many advantages of online learning, three stand out: flexibility, personalized learning experiences, and cost-efficiency.

Verbatim repetition of titles and key words

Flexibility is a key factor that sets online learning apart from its traditional counterpart. With online courses, students have the freedom to access materials and lectures at their own convenience. This flexibility allows learners to balance their education with work, family commitments, or other responsibilities. Unlike traditional classroom schedules, which often require strict adherence, online learning empowers students to design their own study routines, making it an ideal choice for those with busy lives.

Personalized learning experiences are another compelling reason to embrace online education. Many online platforms employ adaptive technology that tailors the learning process to each individual's needs and learning style. This means that students can progress at their own pace, delve deeper into areas of interest, and receive targeted support when facing challenges. The ability to adapt to individual learning preferences fosters a more effective and engaging educational experience, ultimately leading to better retention and comprehension of the material.

Cost-efficiency is a crucial consideration for many prospective learners. Online courses typically come with lower tuition fees compared to traditional on-campus programs. Moreover, the absence of commuting or housing costs can result in substantial savings. In addition, the availability of free or open educational resources further reduces the financial burden on students. In an era where the cost of education is a significant concern, online learning offers an affordable alternative without sacrificing quality.

In conclusion, online learning has emerged as a superior mode of education due to its **flexibility, personalized learning experiences, and cost-efficiency**. Its adaptability to the diverse needs of students, the convenience it offers, and the economic advantages it provides make it a compelling choice for learners of all ages and backgrounds. As we continue to embrace technology and adapt to the evolving educational landscape, online learning remains a powerful tool that empowers individuals to achieve their academic and professional goals while balancing the demands of modern life. As a society, we should recognize and embrace the transformative potential of online learning to expand access to education and create a more inclusive and equitable learning environment for all.




Genre conventions and stylistic devices

ChatGPT seems to rely heavily on (genre-specific) stylistic devices.

Alliteration

- Title: The **D**igital **D**ance of **D**ating: Unveiling Tinder's Charms
- In the contemporary **l**andscape of **l**ove, online dating platforms have become the new frontier, and among them, Tinder stands out as a **p**rominent **p**layer.

Metaphors and similes

- landscape of love
 - leveling up in the quest for love
 - getting that Super Like feels like scoring a touchdown
- 

Factual inaccuracy

ChatGPT frequently gives inaccurate answers and sometimes even freely invents them.

Prompt: What do these three terms mean in corpus linguistics: **semantic prosody**, **semantic preference**, **semantic exuberance**

Semantic Prosody: Semantic prosody refers to the consistent, often subtle, connotations or associations that a word or phrase carries in different contexts. It is concerned with the overall "feeling" or tone that a word or phrase imparts when it is used. For example, the word "freedom" may have a positive semantic prosody, as it is often associated with positive or liberating connotations in various contexts. Conversely, the word "bureaucracy" might have a negative semantic prosody, as it is often associated with negative or stifling connotations in many instances. Semantic prosody is identified by examining how words or phrases are typically used and the attitudes or emotions they tend to convey in context.

FAIRLY
ACCURATE

Semantic Preference: Semantic preference relates to the tendency of certain words to co-occur or preferentially appear alongside other specific words in a language corpus. It involves identifying which words often appear together due to their mutual associations or semantic relationships. For example, the word "computer" might have a semantic preference to co-occur with terms like "keyboard," "mouse," "software," and "monitor." By analyzing these co-occurrence patterns, linguists can gain insights into the typical word combinations and associations within a language. (-> **collocation**)

FAIRLY
ACCURATE

Semantic Exuberance: Semantic exuberance is a concept that deals with the degree to which a word or phrase is rich in its potential for various meanings or connotations. Words that exhibit semantic exuberance can be used in a wide range of contexts and have multiple meanings or connotations. These words are often versatile and adaptable. For example, the word "set" can have various meanings depending on the context, such as "set the table," "television set," "set of instructions," etc. This is a versatile word with semantic exuberance because it can be applied in many different ways.

MADE UP

The background is a stylized illustration of a room. At the top center, a dark green pendant light hangs from a thin wire, casting a large, bright white cone of light downwards. On either side of the light are large, multi-paned windows with light gray frames. In the bottom left corner, there is a teal-colored modern chair with a wooden tripod base, next to a potted plant with long green leaves in an orange pot. In the bottom right corner, there is an orange-colored modern chair with a wooden tripod base, also next to a potted plant with long green leaves in an orange pot. The overall color palette is muted and modern.

Follow-up prompt:


Does the concept of semantic exuberance really exist in corpus linguistics?

I apologize for the confusion in my previous response. The term "semantic exuberance" is not a standard concept in the field of corpus linguistics or mainstream linguistic theory. I made an error in including it in my explanation. I appreciate your patience and understanding. The concepts of semantic prosody and semantic preference are well-established and commonly used in corpus linguistics to analyze word and phrase usage in context. [...] These are valid and recognized concepts in the field of linguistics. [...]



Lack of referencing

(Cotton et al., 2023)

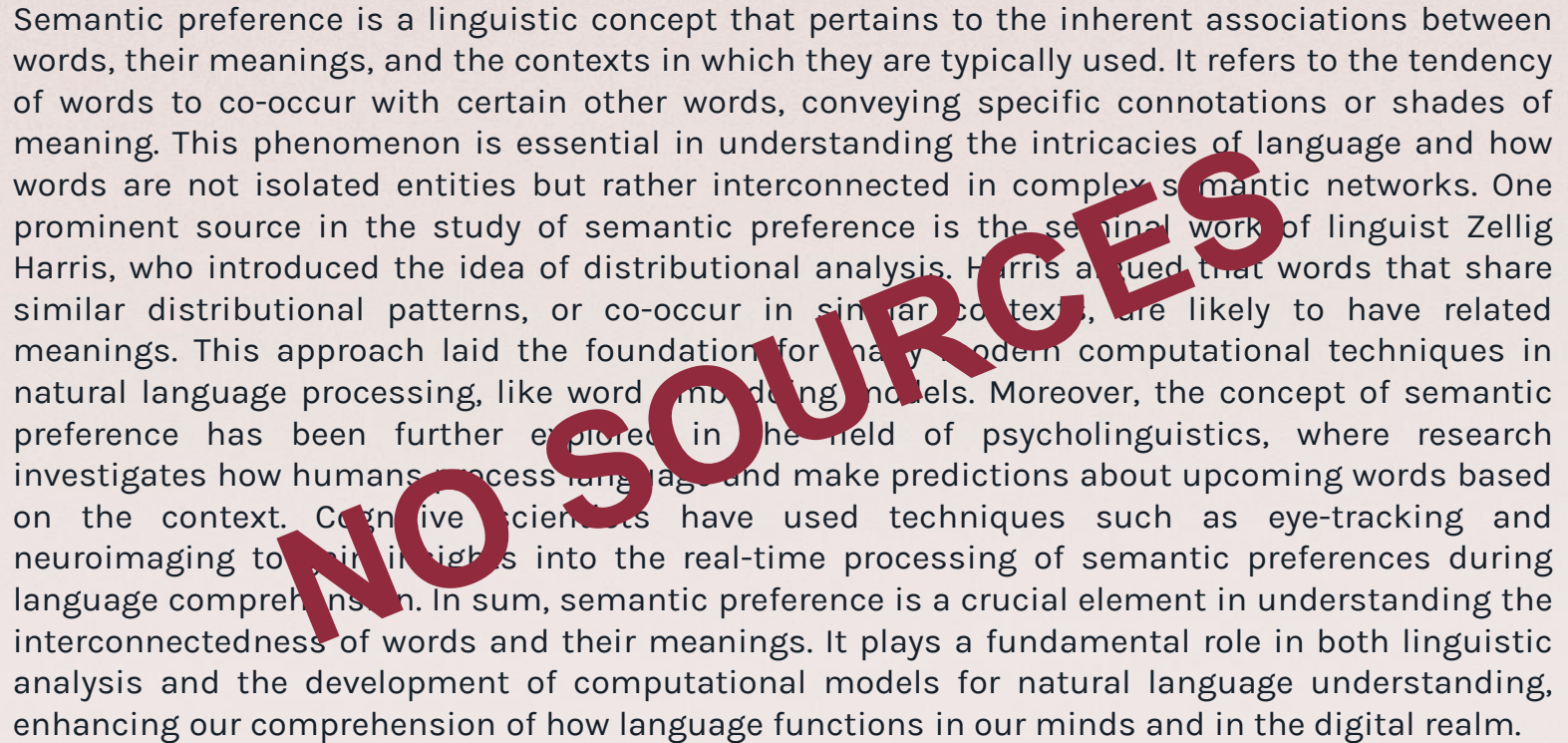
- Checking for sources and citations as chatbots struggle with producing correct quotes.
 - However, it depends on the students' ability to prompt the AI.
- 

Prompt

Write a 200-word description of semantic preference and use academic sources.

VS

Write a 200-word description of semantic preference and use academic sources. Use short references according to the APA7 style and provide full bibliographical references after the summary.



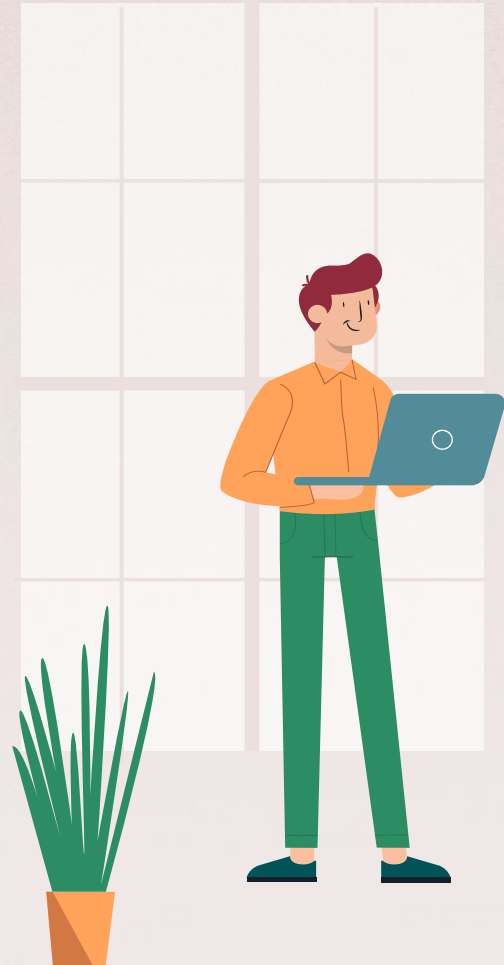
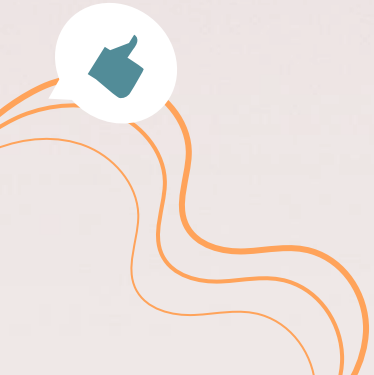
Semantic preference is a linguistic concept that pertains to the inherent associations between words, their meanings, and the contexts in which they are typically used. It refers to the tendency of words to co-occur with certain other words, conveying specific connotations or shades of meaning. This phenomenon is essential in understanding the intricacies of language and how words are not isolated entities but rather interconnected in complex semantic networks. One prominent source in the study of semantic preference is the seminal work of linguist Zellig Harris, who introduced the idea of distributional analysis. Harris argued that words that share similar distributional patterns, or co-occur in similar contexts, are likely to have related meanings. This approach laid the foundation for many modern computational techniques in natural language processing, like word embedding models. Moreover, the concept of semantic preference has been further explored in the field of psycholinguistics, where research investigates how humans process language and make predictions about upcoming words based on the context. Cognitive scientists have used techniques such as eye-tracking and neuroimaging to gain insights into the real-time processing of semantic preferences during language comprehension. In sum, semantic preference is a crucial element in understanding the interconnectedness of words and their meanings. It plays a fundamental role in both linguistic analysis and the development of computational models for natural language understanding, enhancing our comprehension of how language functions in our minds and in the digital realm.


Semantic preference is a crucial concept in corpus linguistics that examines the inherent associations and tendencies of words to co-occur with specific lexical items in natural language. It plays a pivotal role in understanding how words and phrases interact within a linguistic context, shedding light on the nuances of language usage and the underlying semantics. This phenomenon is fundamental in revealing patterns of collocation and providing insights into word associations and their context-based meanings. Numerous studies have delved into semantic preference, employing large corpora for analysis. For instance, **Sinclair (1991)** highlighted that "collocation" or the co-occurrence of words, is central to understanding word meaning and the contextual relationships between words. Researchers like **Evert and Krenn (2005)** have extended this by applying statistical measures to investigate semantic preference, emphasizing that it helps uncover both syntagmatic and paradigmatic relationships in language. In the field of corpus linguistics, the examination of semantic preference through collocational patterns offers valuable contributions to lexicography, language teaching, and the enhancement of natural language processing systems. By identifying the typical companions of words, this concept allows for a deeper understanding of word usage in different contexts, aiding in language comprehension and generation.

Evert, S., & Krenn, B. (2005). Methods for the Qualitative Evaluation of Lexical Association Measures. Proceedings of the 5th International Conference on Language Resources and Evaluation (LREC 2006), 1289–1292.


Sinclair, J. (1991). Corpus, Concordance, Collocation. Oxford University Press.


Tips for teachers






How to prevent students from cheating with ChatGPT

- Require students to submit drafts (ChatGPT/Cotton et al., 2023)
 - Highly specific assignments based on topics and concepts dealt with in class
 - Assignments that require referencing, specifically *italics*
 - Discussion of topics and events that arose/happened after 2022 (paywall)
 - Students need to be prepared to defend their arguments in class
- 



How to prevent students from cheating with ChatGPT

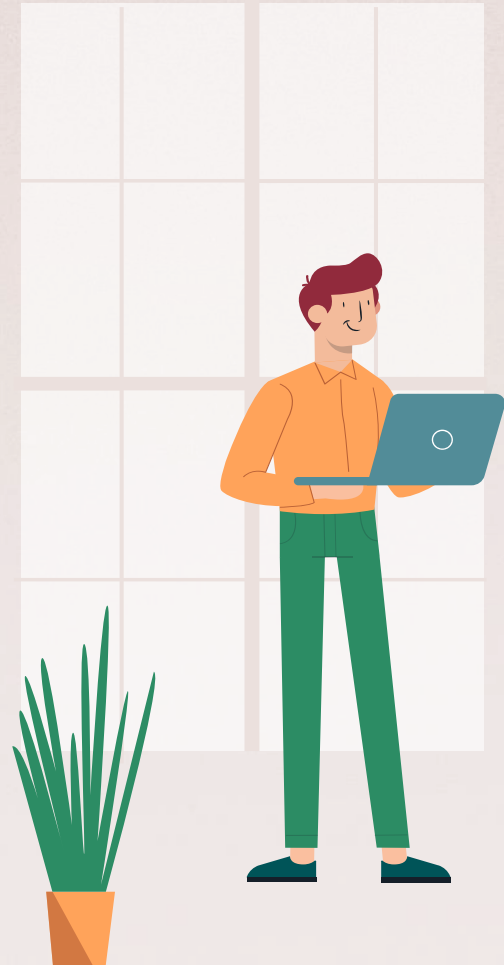
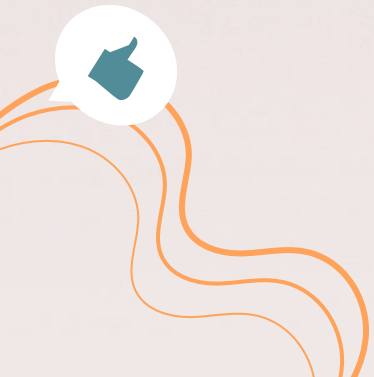
- Plagiarism detection software: e.g. ZeroGPT, GPT-2 Output UseDetector Demo
 - However: moderately successful (ChatGPT/Cotton et al., 2023)
 - Set clear guidelines for the use of AI (e.g. up to 15% AI-generated text allowed as long as it is clearly marked/indicated)
- 

03

Potential for teacher support



Feedback



ChatGPT feedback

Can provide feedback according to a user's specifications (e.g. assessment scales).

Feedback on
the content

Feedback on
organisation
aspect

Feedback on
language aspect



Effective feedback prompts

(Pollin, 2023)

- **Prompt:** Give me **critical** feedback on the following text.
- **Even better:** Provide **constructive feedback/criticism** on the following text, highlighting areas for improvement.



ChatGPT: Feedback example on the **organization** of an argumentative essay

(Guo & Wong, 2023)

One suggestion for improvement could be to further clarify the structure of the essay by using subheadings or transitional phrases to indicate the change in focus from the first reason to the second reason and from the discussion of the argument to the counterargument. This would make the essay easier to follow and better guide the reader through the writer's thought process.



ChatGPT: Feedback example on content

(Student opinion essay)

Prompt: Give **critical** feedback on the following essay according to these **five criteria**: Content, Organisation and Cohesion, Vocabulary, Grammar and Language Use, Mechanics (e.g. punctuation, spelling, capitalization).



ChatGPT: Feedback example on content

(Student essay)

- **Strengths:**

- Your essay clearly presents a stance on the topic: children below the age of 18 should not be allowed to undergo cosmetic surgery.
- You've provided three distinct reasons supporting your argument.
- The essay has a clear introduction, body, and conclusion.



ChatGPT: Feedback example on content

(Student essay)

- **Areas for Improvement:**

- The essay could benefit from incorporating more evidence or examples to strengthen your points. For instance, you could include specific cases or studies that highlight the risks or ineffectiveness of cosmetic surgery in teenagers.
- Elaborate on the point about therapy being a more effective solution. Providing more detail on why therapy is beneficial would enhance your argument.



Same prompt, different feedback types

Content:

• **Strengths:**

- Your essay clearly presents a stance on the topic: children below the age of 18 should not be allowed to undergo cosmetic surgery.
- You've provided three distinct reasons supporting your argument.
- The essay has a clear introduction, body, and conclusion.

• **Areas for Improvement:**

- The essay could benefit from incorporating more evidence or examples to strengthen your points. For instance, you could include specific cases or studies that highlight the risks or ineffectiveness of cosmetic surgery in teenagers.
- Elaborate on the point about therapy being a more effective solution. Providing more detail on why therapy is beneficial would enhance your argument.

Organisation and Cohesion:

• **Strengths:**

- The essay follows a logical structure with a clear introduction, body paragraphs, and a conclusion.
- Each paragraph discusses a different reason, which aids clarity.

• **Areas for Improvement:**

- Consider using transition words and phrases to enhance the flow between sentences and paragraphs. This will make the essay more cohesive.

Content:

The essay presents a clear argument against allowing children below the age of 18 to undergo cosmetic surgery. The reasons provided are reasonable and logically structured. However, the essay would benefit from citing specific research or statistics to support the claims made about the ineffectiveness of cosmetic surgery in addressing self-esteem issues in teenagers.

Organisation and Cohesion:

The essay follows a logical structure with a clear introduction, body paragraphs, and conclusion. Each paragraph addresses a specific reason why children should not undergo cosmetic surgery. However, there could be a smoother transition between the second and third paragraphs. Additionally, the conclusion summarizes the main points effectively but could be strengthened by restating the thesis in a slightly different way.

Vocabulary:

The vocabulary used in the essay is generally appropriate, but there are a few instances where words could be chosen more carefully for precision. For example, in the first paragraph, "sparcked" should be spelled as "sparked," and "Trait" should be "trait." In the second paragraph, "unrest" might be better replaced with "turmoil" or another term that more accurately reflects the hormonal challenges teenagers face.

ChatGPT: Feedback example on language

(Student essay)

Prompt: Point out and suggest corrections for all the language, grammar, tense, spelling, capitalization, and punctuation mistakes in the following essay. Also point out and suggest corrections for incorrectly used linking phrases. Do this in bullet point format.





ChatGPT

Language, Grammar, Tense, Spelling, Capitalization, and Punctuation Mistakes:

- "sparcked" should be "sparked."
- "there" should be "their" (in the context of "the way their body was altered").
- "Trait" should be "Tendency."
- "inadvisable" should be "inadvisable."
- "Due to this misconception teenagers have, allowing it them to undergo plastic surgery would be inadvisable." Rewrite: "Due to this misconception, allowing teenagers to undergo plastic surgery would be inadvisable."
- "immature" should be "mature" in the sentence "they are not immature enough to make decisions that could lead to long-term health issues."

Linking Phrases:

- "This in turn, has sparked heated debates..." Consider revising to: "This, in turn, has sparked heated debates..."
- "Firstly" and "Secondly" are acceptable, but for variety, consider using "First" and "Second."
- "On the contrary" could be replaced with "Contrarily."
- "Finally" is appropriate, but consider using "In conclusion" for variety.


Additional Suggestions:

- Consider breaking down long sentences for improved readability.
- "It them" is unclear; consider rephrasing to "allowing them."



ChatGPT feedback: Strengths and limitations


Mostly reliable

- + content and overall organization
 - + spelling mistakes
 - + commas
 - + syntax (*allowing ~~it~~ them; should not be permitted*)
 - + verb complementation (*allowed ~~receiving~~ to receive*)
 - + obvious logical inconsistencies (*not ~~im~~mature enough*)
- 



ChatGPT feedback: Strengths and limitations


Usually unreliable

- linking phrases
 - capitalization
 - use of tenses
 - agreement (*this trait in young people indicates*s)
 - possessives (*teenagers'*)
 - word choice (*complications can raise* *arise*)
- 

04

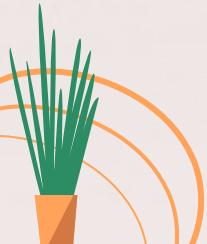
Workshop





Workshop: **Language detectives**

Identify which of the articles (if any)
was written by Chat GPT and which by
a student of English.



ChatGPT: Prompts for the article

Prompt 1: Write an article of about 900 words about online dating, using Tinder as one example. The writing style should be that of an undergraduate student, but the article should not be focused on students specifically.

Prompt 2: Please rewrite this article to be a bit witty and somewhat less formal.

References

Debby R. E. Cotton, D. R. E., Cotton, P. A., & Shipway, J. R. (2023). Chatting and cheating: Ensuring academic integrity in the era of ChatGPT. *Innovations in Education and Teaching International*. <https://doi.org/10.1080/14703297.2023.2190148>

Guo, K., & Wang, D. (2023). To resist it or to embrace it? Examining ChatGPT's potential to support teacher feedback in EFL writing. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-023-12146-0>

Mindner, L., Schlippe, T., & Schaaff, K. (2023). Classification of Human- and AI-Generated Texts: Investigating Features for ChatGPT. *Computation and Language*. <https://doi.org/10.48550/arXiv.2308.05341>

Pollin, C. (2023). Workshopreihe “Angewandte Generative KI in den (digitalen) Geisteswissenschaften” (v1.0.0). Zenodo. <https://doi.org/10.5281/zenodo.10065626> (“Einführung in das Prompt Engineering”)

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FOR YOUR ATTENTION**



**ANY DOUBT
CONSULT ChatGPT**