



AI-Assisted Tasks and Materials Development for Language Instruction

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September 13, 2023



Agenda

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Brief Introduction

- What is ChatGPT
 - Large Language Model trained to interact with end users in a conversational way. Predicting next words to appear.
 - In today's workshop,
- How to access
 - Web: <https://chat.openai.com/>
 - Mobile Device
- Your impression with ChatGPT and other similar tools:
 - Menti.com 89891056

The Presenter, Attendees, and Our Mindset

- Not an expert in many aspects of AI, e.g. NLP.
- Did some work in the summer
 - Li B, Kou X, Bonk CJ. Embracing the Disrupted Language Teaching and Learning Field: Analyzing YouTube Content Creation Related to ChatGPT. *Languages*. 2023; 8(3):197. <https://doi.org/10.3390/languages8030197>
 - Li, B., Bonk, C. J., & Kou, X. (2023). Exploring the Multilingual Applications of ChatGPT: Uncovering Language Learning Affordances in YouTuber Videos. *International Journal of Computer-Assisted Language Learning and Teaching (IJCALLT)*, 13(1), 1-22. <http://doi.org/10.4018/IJCALLT.326135>
 - Use it almost daily for work
- Attendees are welcome to share your experience because you may know better in one particular area
- Mindset for learning about AI:
 - Critical Thinking
 - Open-mindedness: Learn it to be able to judge it. Digital literacy. AI literacy.
 - Sharing and Collaboration

Multilingual but not competent in all

- Can understand one prompt with multiple languages combined and can respond with multiple languages in one message.
- High-medium-low resource languages
- Example: YouTube video on Latin:
 - Many other languages mentioned in the comments as analyzed by Li, Bonk & Kou (2023).
 - For Sorbian, ChatGPT attempted to answer in various Slavic languages instead of Sorbian itself

Language Categories based on Data Ratios in CommonCrawl Corpus (Lai, et al. 2023)

High-resource

Language	Code	Pop. (M)	CC Size	
			(%)	Cat.
English	en	1,452	45.8786	H
Russian	ru	258	5.9692	H
German	de	134	5.8811	H
Chinese	zh	1,118	4.8747	H
Japanese	jp	125	4.7884	H
French	fr	274	4.7254	H
Spanish	es	548	4.4690	H
Italian	it	68	2.5712	H
Dutch	nl	30	2.0585	H
Polish	pl	45	1.6636	H
Portuguese	pt	257	1.1505	H
Vietnamese	vi	85	1.0299	H

Medium-resource

Turkish	tr	88	0.8439	M
Indonesian	id	199	0.7991	M
Swedish	sv	13	0.6969	M
Arabic	ar	274	0.6658	M
Persian	fa	130	0.6582	M
Korean	ko	81	0.6498	M
Greek	el	13	0.5870	M
Thai	th	60	0.4143	M
Ukrainian	uk	33	0.3304	M
Bulgarian	bg	8	0.2900	M
Hindi	hi	602	0.1588	M

Low and Extremely Low Resource

Bengali	bn	272	0.0930	L
Tamil	ta	86	0.0446	L
Urdu	ur	231	0.0274	L
Malayalam	ml	36	0.0222	L
Marathi	mr	99	0.0213	L
Telugu	te	95	0.0183	L
Gujarati	gu	62	0.0126	L
Burmese	my	33	0.0126	L
Kannada	kn	64	0.0122	L
Swahili	sw	71	0.0077	X
Punjabi	pa	113	0.0061	X
Kyrgyz	ky	5	0.0049	X
Odia	or	39	0.0044	X
Assamese	as	15	0.0025	X

“Comprehension” of Text

- Explain words in a context (Good for idiom or words with metaphorical meaning)
 - Can you explain the word murky in this sentence? “the definition of a whole grain food is murky” (example by Tom Gally in <https://www.youtube.com/watch?v=l41hZLRsDos>)
 - Can you give some other examples of “murky” used in a sentence
 - My prompt: “Add the shallot and spice blend; season with salt and pepper to the pan of reserved fond”. What's the meaning of fond. And the Chinese translation.
- Provide a long piece of text and
 - Have a list of vocabulary generated
 - Prompt: Can you explain these [five] words that are used in this [text](https://www.youtube.com/watch?v=-JgGtrjhFis&t=726s)? Make a table with these words like this: English word, its English explanation, its Spanish translation as used in the above text, Chinese explanation (and include pinyin), two example sentences in English. (Tip adapted from <https://www.youtube.com/watch?v=-JgGtrjhFis&t=726s>)
 - You can also ask for phonetic annotation such as Pingyin, IPA, Romaji,
 - Intensive reading:
 - Prompt: Display the text sentence-by-sentence. First show the [target language] sentence, then the vocabulary notes in [native language] for the words in that sentence, and finally the [native language] translation of that sentence. Do this for the entire paragraph
- Explain nuances between two similar words
- Explain this sentence word by word with POS: [SENTENCE] (especially helpful for language that has no space between words)
- Create practice questions? (Not so good for now, but there are other tools)
- Self-Directed Learning. Students create their own learning path.

Generating Text for Further Reading (I)

- Essay, Stories, poem
 - Provide keywords, context, length, etc.
 - Keywords can come from existing reading to strengthen the learning experience
 - Be cautious of Poem in language other than English (e.g. Haiku)
- Conversation in different scenarios (interview, supermarket, bank, job interview, blind date, airport customs, etc.)
 - Prompt: Can you give me some example questions and answers for [airport customs] in [Chinese]
 - As a way to prepare for a conversation practice or a real-life task:
 - "I am going to have a job interview for [a marketing] position. The interview will be conducted in [Spanish]. Can you provide me 10 keywords, 5 key phrases and 5 key sentences usually used in answering questions, that would be used in such an interview? Please provide both the [Spanish] text and its [English] translation.
- Proficiency Level specification seems not working well
 - Use specific request such as excluding certain tense if a learner hasn't mastered it yet
 - Specify level relatively based on an existing piece of text.

Generating Text for Further Reading (2)

Prompts: Rewrite this paragraph for less proficient/more advanced readers.

Source: [Wikipedia's Moment of Truth - The New York Times \(nytimes.com\)](#)

Original

In early 2021, a Wikipedia editor peered into the future and saw what looked like a funnel cloud on the horizon: the rise of GPT-3, a precursor to the new chatbots from OpenAI.

When this editor — a prolific Wikipedia who goes by the handle Barkeep49 on the site — gave the new technology a try, he could see that it was untrustworthy. The bot would readily mix fictional elements (a false name, a false academic citation) into otherwise factual and coherent answers.

But he had no doubts about its potential. “I think A.I.’s day of writing a high-quality encyclopedia is coming sooner rather than later,” he wrote in “Death of Wikipedia,” an essay that he posted under his handle on Wikipedia itself. He speculated that a computerized model could, in time, displace his beloved website and its human editors, just as Wikipedia had supplanted the Encyclopaedia Britannica, which in 2012 announced it was discontinuing its print publication.

Simplified

In early 2021, a Wikipedia editor noticed the emergence of GPT-3, an advanced chatbot by OpenAI.

This editor, known as Barkeep49 on Wikipedia, tested the technology and found it sometimes mixed fiction with facts.

However, he recognized its potential. In an essay titled "Death of Wikipedia," he suggested that such AI could eventually replace human-edited platforms like Wikipedia, much like how Wikipedia had earlier replaced printed editions of the Encyclopaedia Britannica.

Is this good writing?

More Advanced

In 2021, a seasoned Wikipedia editor, known by the pseudonym Barkeep49, discerned the ascendance of GPT-3, an avant-garde chatbot progenitor from OpenAI.

Upon interfacing with this innovation, he observed its propensity to amalgamate spurious details with verifiable information.

Notwithstanding its current shortcomings, he was unequivocal about its latent capability. In his analytical essay, "Death of Wikipedia," he postulated the imminent era wherein AI would author premier encyclopedia content. He further conjectured the potential obsolescence of human-edited platforms, drawing parallels to Wikipedia's eclipse of the print edition of Encyclopaedia Britannica in 2012.

Generating Text for Further Reading (3)

- Authenticity of Text
 - Depending on the language
 - Naturalness of language (Textbook language as reported by French and Japanese teachers; Native speakers don't use it, as reported by a YouTuber we interviewed)
 - ““We have a lot of different versions of English, but it produces this kind of very white bread textbook style, not too old fashioned, not too slang.” (Tom Gally, Interview, May 2, 2023)” or “Vanilla flavor”

Conversation Tasks

- Topic specified by you
 - I want you to act as a language partner and ask me questions in [Chinese] about [tea]. Please chat with me in Chinese. In addition, please provide English translation of what you say.
 - Imagine you are an interviewer and you are the Chair of the department in a university. I am applying to become a faculty of this department. Please give me a mock-up interview. You ask a question and I respond. We will speak in [Language]
- Have ChatGPT provide topics
 - Prompt: I am a beginner learner for Spanish. Describe a situation and ask me to respond in Spanish. Please also translate your question and instruction into English in each round of the conversation"
- Tip for learners: Open another thread and use the prompt: "From now on, translate my English sentence into Spanish and Spanish sentence into English."
- Ask for Evaluation:
 - Prompt: "Can you evaluate my responses and point out any mistakes?"

Writing Tasks Examples

- Using ChatGPT as a supporting tool for writing, e.g. Cover Letter
 - Write a plan for what to include in a cover letter (specify the job being applied, list strengths, etc.)
 - Write prompt
 - Generate Cover letter
 - Highlight terms and sentences to be used
 - Write one's own cover letter using the sentence structure, paragraph transition, and terms provided by AI
 - Ask ChatGPT to proof read one's own writing
- Assistant on word choice:
 - What's that word?
 - Collocation: "Please rewrite "displaying their willingness to contribute openly to the study"
- Evaluation of appropriateness of a functional text (such as a request to raise budget). Focused on pragmatics of text.
- Gamification. Collaborative Writing.



Prompt Engineering

- Role+Context+**Request**+Additional Notes
- Step-by-step prompt
- Try different languages (the target language, English, and your native language)

Generating Lesson Plan?

- [The Future of Your Lesson Planning: When a Culture Lesson Meets Artificial Intelligence - The FLT MAG](#)
 - Lesson Plan
 - Lesson Content
 - Lesson Assessment
 - Try [Formative | Real-Time Instruction](#) for creating digital assignment with AI
- Use the generated plan to compare with your existing lesson plan
- Generating rubrics (try both ChatGPT and Bing Chat)

Example of Formative AI

Auto-Generate Questions BETA

[Feedback](#)

QUESTION OR PASSAGE TYPE

Multiple Choice

PROMPT *

What is the past tense of go in Spanish

Max Character Count: 961

[Clear](#)

GRADE *

Higher Ed

SUBJECT *

World Languages

DIFFICULTY

Easy

What is the past tense of 'go' in Spanish?

Fui

Fuió

Fuieron

Fui

[Add an Answer Choice](#)

Make it: [Easier](#) [Similar](#) [Harder](#)

If you want to say 'I went' in Spanish, which would you use?

Voy

Fua

Vamo

Fui

[Add an Answer Choice](#)

Choose the correct past tense form of 'go' for 'yo' (I) in Spanish

Fui

Vamo

Fué

Voy

[Add an Answer Choice](#)

Make it: [Easier](#) [Similar](#) [Harder](#)

Which of these verb forms represents the past tense of 'go' in Spanish for 'yo' (I)?

Fuió

Fuimos

Fui

Fuieste

[Add an Answer Choice](#)

[Cancel](#)

[Regenerate](#)

[Add](#)

Generating Tasks

- Prompt: I am teaching students preterite (past) tense in Spanish. To help students grasp the concept, please suggest 5 interactive classroom activities and 5 online activities that students work on their own.

Cautions

- Copyright Issues
- Grammatical explanation
- Authenticity of the language
- Unstable answers
- Wrong information especially for languages other than English:
 - 噛みました in [How to Learn Japanese with AI \(ChatGPT\) - YouTube](#)
 - Tone change in Chinese and pitch accent in Japanese
雨 (あめ、ame) is HL but annotated as LHH
 - The lower the resource is, the more problems it will have
- Pragmatics: Email writing for a purpose



Alternative AI Tools

- Bing Chat and Bing Chat Enterprise
 - Use [Bing Chat Enterprise](#)
- <https://komo.ai/>
- <https://www.perplexity.ai/>
- <https://easy-peasy.ai>

	Bing Chat	ChatGPT
Recency	◆◆◆◆◆	◆◆
Accuracy	◆◆◆	◆◆
Flexibility	◆◆	◆◆◆◆
Sources	◆◆◆◆	◆◆

De Ridder & Bogaert (2023) [ChatGPT vs. Bing AI - a side by side comparison of 20 innovation use cases](#). *Board of Innovation*.¹⁸

Integration with Other Tools

- YouTube Plugin
- Voice recognition (Cell phone) through app
- E.g. Put ChatGPT generated text to LingQ to generate lesson
- Language learning apps and tools
- <https://elevenlabs.io/> (Generative Voice AI: advanced text to speech and voice cloning software)
 - <https://en.wikipedia.org/wiki/ElevenLabs>

Language teacher's Job—Safe but ...

- Intensive reading is now well facilitated by AI
- AI can only be a teaching Assistant
- Learner autonomy:
 - students can now check if they are correct on their own and make that judgment, not waiting for the instructor to tell them- YouTuber Interview, Cathy, Polyglot life)
- Pedagogical implication: flipped classroom, support students in self-directed learning, transparency in learning and teaching ([TiLT](#)), emphasis on critical thinking, engage students cognitively and support students emotionally, form and facilitate learning community, etc.

Your impression with
ChatGPT and other
similar tools:

Menti.com 89891056



Research

- Classroom implementation—teacher and student perspective
- Integration with other learning tools
- Call for a Panel for AI-based Language Teaching based on Classroom Implementation.

References

- De Ridder & Bogaert (2023) ChatGPT vs. Bing AI – a side by side comparison of 20 innovation use cases. Board of Innovation.
- Huang, W. (2023) The Future of Your Lesson Planning: When a Culture Lesson Meets Artificial Intelligence. The FLT MAG, July 2023. <https://fltmag.com/lesson-planning-artificial-intelligence/>
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The way to get started
is to quit talking and
begin doing.

Walt Disney

*Don't dismiss it
without trying it...*



Thank you

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