

AI Realities: Implications for Language Educators

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Introduction

On November 30, 2022, a notification from *The New York Times* announcing the release of ChatGPT to the public popped up on my computer. My curiosity for all things technology led me to ChatGPT's simple gray chat window. I proceeded to ask language-related questions, including "Give me synonyms for the expression 'Do not hesitate to reach out!'" In less than a second, ChatGPT spat out more than 20 alternatives. Then, I made more elaborate requests, such as "Write a list of classroom activities for 9th graders around Thanksgiving" and "Give me some ideas on how to differentiate my pedagogy." ChatGPT provided more than 10 possibilities that could be used in any classroom. I felt as if I had been given the key to a forbidden treasure.

I soon discovered that this chatbot could also create cohesive written paragraphs on any topic in less than a minute. When I asked ChatGPT to summarize *The Catcher in the Rye* by J. D. Salinger, it produced the following text (OpenAI, 2024):

The Catcher in the Rye by J. D. Salinger
is a novel that revolves around the life

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and experiences of its protagonist, Holden Caulfield. The story is set in the 1950s and is narrated by Holden himself. It primarily explores themes of adolescent alienation, identity, and the loss of innocence.

Holden Caulfield is a sixteen-year-old boy who has been expelled from several preparatory schools for his poor academic performance and disruptive behavior. He is cynical, critical of society, and often feels disconnected from the world around him. He becomes disillusioned with the adult world and what he perceives as its phoniness, which he finds particularly prevalent in the social norms and conventions of his time.

Holden decides to leave his current school, Pencey Prep, a few days before Christmas, and he embarks on a journey to New York City. During his time in the city, he encounters various people and situations that challenge his views on life, love, and himself. He also reflects on his relationships with his family, especially his younger sister Phoebe, whom he cares deeply for.

The title of the novel comes from Holden's fantasy of being a "catcher in the rye." He imagines himself standing in a field of rye, where children are playing

and at risk of falling off a cliff. He wants to protect and save these children from losing their innocence and falling into the complexities of adulthood.

Overall, “The Catcher in the Rye” is a coming-of-age story that delves into the struggles and inner thoughts of a young man as he grapples with the challenges of growing up and the world around him. It’s a novel that has resonated with many readers for its portrayal of teenage angst and the universal themes of identity and authenticity.

While reading these paragraphs, I could not help but be reminded of the scene in the movie *2001: A Space Odyssey*, when a group of monkeys were looking at a monolith, mesmerized and puzzled by this foreign object (Kubrick, 1968, 00:09:50). I was experiencing a “before-and-after” moment in history, an opportunity to redefine how we do things. While I was momentarily excited, I started to see the limitations of this new technology. I realized that ChatGPT’s summary of *The Catcher in the Rye* is bland and colorless. The language used is prescriptive and often exaggerated, with unnecessary use of fancy words, including adolescent alienation, disillusioned, disruptive, phoniness, inner thoughts, delves, angst. The organization of the summary follows a prescriptive pattern: the introductory paragraph states the three main themes: adolescent alienation, identity, and the loss of innocence; the following three paragraphs develop each theme and then present the concluding paragraph.

In addition to using prescriptive and unnecessary fancy words, ChatGPT provides inaccurate information (i.e., it hallucinates). I asked ChatGPT to give me a list of books on bilingualism in higher education, which resulted in this list (OpenAI, 2024):

Books:

Bilingualism and Multilingualism in Higher Education: Policies, Practices, and Challenges, edited by David Block and Margarita Kintz. Multilingual Matters, 2020.

Bilingualism in Higher Education: International Perspectives, edited by Christina J. Erggelet, Christina Bratt Paulston, and Gudrun Erickson. Multilingual Matters, 2016.

Bilingualism in Higher Education: A Research Perspective, edited by Ana Llinares and Elena Valenzuela. Multilingual Matters, 2011.

Articles:

“Bilingualism and multilingualism in higher education: policies, practices, and challenges” by David Block and Margarita Kintz in *The Modern Language Journal*, Vol. 104, No. 2 (2020), pp. 1-9.

“Bilingualism in higher education: from

theory to practice” by Christina J. Erggelet, Christina Bratt Paulston, and Gudrun Erickson in *Bilingualism: Language and Cognition*, Vol. 19, No. 2 (2016), pp. 273-276.

“Bilingualism in higher education: international perspectives” by Ana Llinares and Elena Valenzuela in *Language Policy*, Vol. 12.

You probably have noticed that not one of those books exists. Furthermore, this list includes two books and two articles with identical titles and authors. In another example where I requested a list of authors who have written about bilingual education in higher education, Ofelia Garcia, a bilingual educator, is cited by ChatGPT as one of the scholars. However, her writings are focused on bilingualism at the K–12 level.

The more I experimented with ChatGPT, the more I realized the possibilities and challenges that this type of new technology could present to language educators, as well as the urgency not to ignore and run away from it but to understand the technology’s potential and limits. Assuming a position of denial of AI’s capabilities in producing language is not the answer. Trying to understand its potential and limits and how we can use it to maximize language classroom experiences should be the goal, since we could be losing out on features that have the potential to enhance our students’ learning. In the following sections, I address some of the most common questions that educators ask about AI in the field of language learning.

What is AI?

AI stands for artificial intelligence, i.e., a simulation of human intelligence in processes such as learning, reasoning, problem-solving, learning from past experiences, and engaging in natural language processes, among others (Copeland, 2024). AI's ability to function in natural language processes is of great interest to us since language makes us human, and the thought that a machine can produce language needs to be carefully considered.

What is Generative AI?

Perhaps the most well-known generative AI model is Chat Generative Pretrained Transformer (Chat GPT), a large language model (LLM) that “is designed to generate human-like text by predicting the next word in a sequence given all the previous words. ChatGPT has been trained on a diverse range of internet text, so it can perform a variety of tasks like answering questions, having conversations, writing essays, summarizing text, translating languages, and more” (OpenAI, 2024). According to Johri & Moncada-Reid (2023), the training of LLM models has been focused on three behaviors: next-word prediction, following instructions, and conversing. The training of these models is relatively short in duration and limited data despite its exponential growth: the stage of next-word prediction started in 2018, learning how to follow instructions started in 2020, and learning how to converse started in 2022.

What Do These Chatbots Do Regarding Natural Language Processing?

According to Chomsky et al. (2023), these chatbots have “access to a great amount of language, search for patterns in it and become increasingly proficient at

generating statistically probable outputs.” (para. 2). In short, LLMs are good at memorizing and filling in the blanks. The language outcomes from these models result from being able to pick from thousands of possibilities in seconds.

Can LLMs Produce Natural Language in the Human Sense and Communicate in the Same Way Humans Do?

The answer is not right now, and not in this century. Let me explain. When I asked ChatGPT to compare life in the mountains to life in the city, it produced the following short essay (OpenAI, 2024):

Life in the mountains versus in the city presents two dramatically different living experiences, each with its unique rhythm, challenges, and charms. In the mountains, life tends to move at a slower, more measured pace. This environment is often synonymous with serenity and solitude. Surrounded by nature’s grandeur, mountain living offers a daily panorama of breathtaking landscapes, from snow-capped peaks to lush valleys. The air is fresher, the environment quieter, and the presence of wildlife is a common feature. Mountain residents often develop a deep connection with nature, finding solace and rejuvenation in the outdoors. Activities such as hiking, skiing, and mountain biking are not just pastimes but a way of life. However, this idyllic setting comes with its own set of

challenges. Mountain areas can be remote, making access to urban amenities like shopping, healthcare, and entertainment more difficult. Weather conditions can be extreme and unpredictable, impacting daily life significantly.

In contrast, city life is marked by its vibrancy and hustle. The city is a melting pot of cultures, offering a rich tapestry of culinary, artistic, and social experiences. The proximity to amenities and services is unparalleled. One can find almost anything at any time, from diverse dining options to cultural events and educational opportunities. The pace of life is faster, driven by the demands of work, social interactions, and the constant buzz of activity. Cities also offer more employment opportunities and career advancements due to their economic dynamism. However, city living can be overwhelming. Issues such as noise pollution, air pollution, and a general sense of crowding are common. The lack of natural surroundings can also be a downside for those who crave a connection with nature.

Both mountain and city life offer unique experiences and cater to different needs and preferences. The tranquility and natural beauty of the mountains are ideal

for those seeking a peaceful, simpler lifestyle close to nature. On the other hand, the city's energy and convenience attract those who thrive on social interaction, diversity, and fast-paced living. Ultimately, the choice between mountain and city life depends on individual lifestyle preferences, priorities, and the kind of environment one feels most at home in.

As noted regarding ChatGPT's summary of the *Catcher in the Rye*, the type of language used is prescriptive. LLMs lack consciousness, emotions, and an understanding of social meaning, and their linguistic outcomes can be biased. For instance, the previous short essay paints a utopian picture of the difference between cities and mountains that fits a perfectly designed world. It is almost as if we are looking at idealized movie landscapes that depict tranquil lives without the challenges that residents in each setting could face, such as a lack of electricity in the mountains or a lack of safety in the cities.

Creativity is a critical part of intelligence. Generative AI models are neither intelligent nor capable of developing an instinctive feeling for language—the feeling that allows us to determine and recognize when a sentence or a word does not sound right or does not fit the context and the realities of the people we are speaking with, for instance. Our capacity to generate language is complex, creative, and arbitrary. It is based as much on what language is and what language is not, as Chomsky et al. (2023) explain in their article titled “The false promise of

Chat GPT.” They say, “Such programs are stuck in a prehuman or nonhuman phase of cognitive evolution. Their deepest flaw is the absence of the most critical capacity of any intelligence: to say not only what is the case, what was the case, and what will be the case—that is, description and prediction—but also what is not the case and what could and could not be the case. Those are the ingredients of explanation, the mark of true intelligence” (Chomsky et al., 2023, para 7).

These generative AI models do not yet use language the way humans do. We still have a long way to go until they do, since we do not fully understand how language happens in our brains. We have a little understanding of some of the biological functions of language in the human brain, but there are many internal processes we still do not understand regarding how language is developed.

Furthermore, I wonder whether, when this type of bot is used to generate written content, the machine-generated perfection of its output could hinder the writing process rather than support it. Chatbots, for instance, provide a near-perfect prescriptive style of writing that might discourage learners from embracing their own unique, imperfect output. Such imperfect outcomes are an essential part of the language learning process and are the result of a creative use of language. Language learning is a process in which mistakes are integral. Now, more than ever, it is imperative that language educators focus on language learning as a process, one that is greatly supported by imperfect outcomes.

Should We Avoid This Technology?

The answer is no. It is important not to avoid

technology that can enhance our practices in efficient and ethical ways. Generative AI can help us make the most of our time, individualize our practices, and provide access to linguistic resources that were not available before. However, it is essential to be selective and intentional about the technology we choose to use. Classroom time should be reserved for activities that engage students with the language rather than just learning about it. For instance, grammar explanations can be left to ChatGPT because grammar is an area of language that can be supported by a machine. We are already doing this with electronic versions of students' activity books. Leaving the teaching of grammar to these types of bots will free additional time in classrooms for engaging in interactive and project-based activities.

What ChatGPT cannot provide are experiences in which students build a meaningful sense of grammar. Our task will be to invite our students to engage in authentic communicative acts. It is important to focus on creating spaces in our classrooms that promote critical thinking, creativity, and motivation toward learning a language, as well as spaces where mistakes are a part of the language learning process.

The role of ChatGPT is more for teachers and outside the classroom than inside the classroom. While these chatbots can provide authentic linguistic material, teachers will design how the material will be used.

How Can Language Teachers Use AI Responsibly and Effectively?

If you were asked to define communication, you would probably state that it concerns being able to

exchange ideas or convey meaning. However, such definitions only partially explain the process of communicating. As a reference for designing practices with AI's help, VanPatten's definition of communication captures the essence of our language classrooms and should be used: "It is the expression and interpretation of meaning and sometimes the negotiation of meaning in a determined context and with a purpose" (VanPatten, 2002, p. 756).

How Can I Use AI in Language Teaching?

Here are some ideas English teachers could explore in our language classrooms:

1. To assist with vocabulary and grammar. How often have you encountered terms about unknown concepts while preparing a lesson or found that the material you had did not give the students enough practice to build a strong understanding of that term or grammar? Chatbots can help you prepare a lesson's vocabulary by providing definitions and examples of how these terms are used. For instance, idioms pose different challenges to those students whose English is not their first language, since idioms are culturally based and their meaning is figurative, not literal. Finding explanations of how certain idioms are used and being provided with examples of how they are used in a fraction of a second not only enhances the teacher's understanding of these types of terms, but also includes material that the teacher can use with students while allowing more time for designing opportunities to build that

understanding in ways that students will be able to negotiate meaning.

2. To create material. Chatbots can craft a story or many versions of a story that are compelling, unique, and tailored to students' interests while using a particular lesson's vocabulary. Once we have this material, we can use our time to design activities that support the building of communicative skills. We can divide the classroom into groups and give each group a version of the story. The first stage will be reading comprehension, and the second stage will be creating different characters and settings. The third stage will be creating a new story. This activity invites students to engage in language interpretation and negotiation of meaning while making the story theirs.
3. To simplify a text's language for different proficiency levels so that we can present our students with supportive learning experiences.
4. To train our students as peer editors. This activity involves giving students a version provided by a chatbot and asking them to evaluate this product and make it better while realizing these bots' limitations for writing.
5. To create different writing prompts and clearer and more accurate questions for an exam.

These are only a few examples of how AI can support teachers by allowing us to focus on designing material that encourages creativity while supporting motivation and critical thinking in our classrooms.

Should I Avoid the Use of Chatbots With Students?

This depends on the roles that chatbots will play in the language learning support system. The ideal technology for students is still pen and paper, books, group work, and interaction. Language learners need to go through the process of listening, speaking, reading, and writing—from creating imperfect outcomes to engaging with the language. Our classrooms are and must become spaces where our students can find opportunities to engage with an imperfect process—spaces where mistakes, imperfections, and frustrations are part of the process.

These roles should reflect a “doing it with you, not for you” approach (Toner, 2024). One area that is being explored is how effective these chatbots are as communication partners. Research on chatbots as effective communication partners is scarce, but some empirical studies that have tested their effectiveness as language partners have found that using writing assistants supports self-regulation and autonomy, which are conducive to further engagement with the language (Daniels 2015; Kim, 2017; Shawar, 2017). An empirical study by Kim et al. (2019) discovered that interaction with chatbots can enrich language input, improve communicative competence, and support engagement with the language learning process.

Conclusion

LLMs are being continuously developed, and many chatbots are being designed to target specific areas of language, but their role as language partners is limited. These chatbots offer the possibility of having access to language material that we did not have before. However, these chatbots are not at the stage of being able to replace the creativity of the human mind. We still need to research

and test the different possibilities these bots offer for language learning.

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