

OPPORTUNITIES AND LIMITATIONS OF GENERATIVE AI

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13th Tsereteli St., 4600, Kutaisi, Georgia,+995558185581, eka.vatsadze@unik.edu.ge,<http://orcid.org/0000-0001-9712-4066>**Abstract**

This article explores the transformative yet complex role of generative artificial intelligence (AI) in language education. Tracing the evolution of technological revolutions, it highlights the increasing integration of AI in various aspects of human life, including education. The research focuses on the potential of generative AI tools—such as ChatGPT, Copilot, Gemini, and others—to personalize language learning, enhance engagement, and offer immediate feedback, thereby reshaping traditional pedagogical approaches. Drawing on Albert Borgmann's philosophical framework, particularly his concepts of the 'device paradigm' and 'focal practices' the article evaluates the implications of AI use in educational contexts. While AI offers promising opportunities for personalized, interactive, and student-centered learning, it also poses significant challenges. These include concerns over authenticity, cultural nuance, language standardization, and the erosion of critical thinking and creativity. Through theoretical analysis and practical examples—such as the AI-enhanced 'Speak Out' coursebook—the article demonstrates both the benefits and limitations of AI in language learning. It argues for a balanced, ethically grounded integration of AI that reinforces rather than replaces human engagement, cultural immersion, and creative expression. Ultimately, this study contributes to ongoing discussions in educational technology by offering a nuanced perspective on how generative AI can support, but not supplant, the human-centered process of language acquisition. The findings are valuable for educators, curriculum designers, and policymakers aiming to harness AI responsibly in the digital classroom.

Key words: Gen AI, authenticity, standardization, critical thinking, creativity.

Introduction

Technological advancement has been a defining aspect of human history. From the mechanization of the First Industrial Revolution in 1765 to the ongoing Fourth Industrial Revolution, also known as Industry 4.0, each era has introduced transformative innovations. Artificial Intelligence (AI) represents a pinnacle of the current technological wave, impacting nearly every aspect of modern life, including language education. AI, particularly generative AI, is revolutionizing the way languages are taught and learned, offering new possibilities for personalized, dynamic, and interactive educational experiences. However, while these innovations hold promise, they also pose critical challenges regarding authenticity, creativity, and cultural sensitivity in language learning.

Methods

This study synthesizes existing academic literature and integrates philosophical inquiry to explore the implications of generative AI in language education. It draws upon interdisciplinary research from educational technology, language pedagogy, and digital ethics, including works by G. Zhou & X. Niu (2015), J. Su & W. Yang (2023), and philosophical perspectives from Albert Borgmann (1984; 2006). Additionally, an analytical overview of current generative AI tools—such as

GPT-4, Gemini, Copilot, Quillbot, ChatPDF, and education-specific platforms like MyEnglishLab—is presented to illustrate their functions and integration into language learning environments.

Results

Generative AI has significantly expanded the possibilities of language education. Tools like OpenAI, ChatGPT, Google, Gemini, Microsoft, Copilot and others now provide automated content creation, translation, grammar correction, text-to-speech conversion, and conversational simulations. In practical applications, such as in the *Speak Out 3rd Edition* coursebook with its AI-supported platform MyEnglishLab, learners receive personalized feedback, immediate grading, and immersive speaking practice with AI interfaces. These applications promote interactive and individualized learning environments that differ from traditional one-size-fits-all instructional approaches.

AI facilitates: Tailored learning paths based on student needs and performance.

Dynamic assessment and feedback.

Rich multimedia support for language acquisition.

Simulation of real-world communication scenarios.

However, several limitations and concerns have also been identified:

Loss of Authenticity: AI-generated content may lack cultural nuance and context-specific language.

Standardization Risk: Over-reliance on AI may reduce linguistic diversity by promoting normalized forms of language.

Critical Thinking Erosion: Automated solutions may diminish learners' critical and creative engagement with content.

Discussion

Throughout history, mankind has always been hinged on the technology. The first industrial revolution (1765) brought the biggest changes in the form of mechanization. The second industrial revolution (1870) is marked by emergence of a new source of energy -electricity, gas and oil leading to chemical synthesis, steel demand and methods of communication such as telephone, telegraph. It also witnessed the invention of automobile and plane. The third industrial revolution (1963) relates to nuclear power and the forth revolution or industry 4.00 is happening now and we don't know it's magnitude yet. Artificial intelligence is a specialized area of computer science focused on mimicking human thinking and decision-making through computer algorithms. AI encompasses a variety of sub-fields, each capable of performing different functions. While some AI systems handle basic tasks, others are highly sophisticated. Certain AI programs can even modify their own algorithms, and some advanced systems are capable of outperforming human experts in specific domains.

We may not be completely aware of how pervasive AI is in our everyday life. We may be surprised to learn that it can be anything from advanced robotics to the voice search function on our smartphone.

Examples and applications of AI are: Digital Assistants (Siri (Apple) Alexa (Amazon) Cortana (Microsoft); Google Assistant (Google) Bixby (Samsung); Search engines (Google, Yahoo, Bing DuckDuckGo); Social media (Facebook (Meta), Instagram (Meta), YouTube, TikTok; Online shopping (as a customer, you may experience AI through personalized product recommendations based on previous shopping activity or customer profile. Chatbots provide instant responses to customer service or technical issues); Robots (aerospace, manufacturing, hospitality); Transportation and navigation (Traffic management systems, Direction apps)Text editing and autocorrect (Grammarly or Hemingway App), Fraud prevention; Predictions; Gaming; Healthcare; Advertising; Analytics; Business. So the intrusion of AI in many areas of our life is quite big and vivid. Education and language language isn't left beyond this procedures. Moreover they are cornerstone of all above mentioned spheres.

Generative AI is a large language model system that receives inputs(texts, pictures, sound, videos) and generate new content in a range of modalities, including text, images, sound, and video (Fui-Hoon Nah et al., 2023). AI systems built on advanced language models like GPT-4, Copilot, Gemini are capable of producing text and visual content that closely resembles human writing, making them valuable tools for language learning. Generative AI applications can offer feedback, support translation, help design educational activities, and create realistic conversational scenarios to enhance

the language learning experience. Common AI tools applied in learning processes are Openai, Copilot, Gemini - powerful tools of artificial intelligence, currently the most popular ones, available in almost all European languages. They are capable of performing specific tasks (e.g. generating/creating texts, questionnaires, and tests). Gamma, Wepik, Slidesgo - helps teachers to prepare lectures or visual materials, and it is also possible to create a presentation based on a text. Mindomo- creates mind maps using artificial intelligence. It is enough to provide information about the kind and type of mind map you need. It can assist teachers with debates, oral presentations, and the preparation of other types of classroom or lecture support materials. ChatPDF - analyses materials and answers questions. This tool helps teachers quickly analyze and simplify complex texts or prepare a questionnaire for text comprehension. Quilbot- can be used in various ways. First of all, it is a detector that can recognize assignments/texts/documents written by artificial intelligence. Image creator(bing.com), Crayon - are free picture generators. Speech – Vertex AI – My First Project – Google Cloud console – <https://app.notta.ai>; converts audio files into texts in many languages including Georgian. Elevenlabs.io, Murf.ai-converts text into audio files in great variety of voices. Pictory- generates videos on the base of script or article the user provides. So the list is big and not complete of course. Beyond doubt, above mentioned tools are great help to teachers and learners in the 21st century.

Traditional approaches to language learning, while effective in some instances, often adopt a one-size-fits-all approach that is being reconsidered for digital times where the scope of learning resources available to students is much greater (Zhou & Niu, 2015). AI-powered tools have the potential to analyze individual learning behaviors, tailor the curriculum to meet specific needs, and deliver immediate feedback in both online and flipped classroom settings (Su & Yang, 2023). Conventionally, language learning materials—such as textbooks and digital content—have been largely static, offering limited opportunities for active or critical engagement. Learners would typically absorb information and then complete exercises or quizzes to assess their understanding. Generative AI, however, transforms this conventional model by integrating learning and assessment into a more dynamic, personalized process. For instance, when a learner struggles with a particular language passage, the AI can immediately detect the issue and provide tailored explanations or additional resources to support continuous progress. Unlike passive content, interactive AI-driven materials foster active participation, creating a more engaging, collaborative, and learner-centered educational experience.

One of the brilliant examples of AI assisted coursebook is Speak out 3rd edition which provides teachers with endless online resources for them and for students. By registering on its platform myenglishlab.com you get students book, workbook, resources, online practice and interactive speaking practice. Teachers can assign suitable online practice material with appropriate deadline and number of attempts. AI assisted grade book gives students immediate feedback and teachers have prompt assessments indicated in percentages. This of course saves teachers' time and gives them opportunity to engage students in more interactive atmosphere in the classroom facilitating and monitoring them. The most interesting and challenging part is interactive speaking practice which enables students to speak with AI using specific phrases and words they get to know on the site before starting. After having a conversation with AI students get feedback via stars. They can replay the roles until they improve their speech. So, instead of speaking to themselves in the mirror as it was in the past, students can improve their speaking skills(fluency, accuracy) via speaking to AI .

Research shows that AI has the potential to enhance language learning outcomes (Liang, et al, 2023). It continues to develop, its role in language education has gained increasing attention—sparking both excitement and the need for thoughtful consideration. While generative AI offers new opportunities similar to past technological revolutions over the last four decades, it also brings challenges that educators and learners must be aware of and navigate carefully.

The integration of generative AI into language education presents several challenges. One major concern is the reliability and authenticity of AI-generated texts. Although these models often produce grammatically and syntactically accurate content, they may lack the nuanced cultural meanings, idioms, and expressions that are intrinsic to human language (Pokrivcakova 2019). Additionally, ethical concerns arise from the cultural biases embedded in the datasets used to train generative AI. Relying too heavily on AI-generated material could lead to the promotion of a standardized form of language, potentially at the expense of linguistic diversity and cultural depth.

Another issue is the potential impact on learners' critical thinking and creativity. If students grow accustomed to passively accepting AI-generated answers, their ability to question, analyze, and produce original ideas may weaken. Language learning is inherently a human-centered process that should foster critical reasoning, creative expression, and conscious engagement with both language and its cultural context.

To explore how generative AI can be meaningfully integrated into language teaching and learning, this article draws on the philosophical framework of Albert Borgmann. Known for his critical stance on technological progress, Borgmann introduced the 'device paradigm' in his influential work *Technology and the Character of Contemporary Life* (Borgmann, 1984). He argued that modern technologies, or 'devices,' tend to strip away meaningful human engagement by delivering convenient outcomes while concealing the processes behind them. This detachment, he claimed, reduces our interaction with culture, nature, and language, favoring efficiency over depth.

Borgmann believed technology should enhance human life rather than diminish it. He emphasized that the device paradigm promotes passive consumption, often at the expense of active cultural and personal engagement. In his later work *Real American Ethics* (Borgmann, 2006). He proposed the concept of 'focal practices'—deliberate, community-centered activities that nurture authentic experiences and deeper human connections. This perspective serves as a valuable lens through which to examine the rise of generative AI in language education.

Generative AI can be seen through two contrasting aspects of Borgmann's framework. On one hand, it risks becoming another 'device', distancing learners from authentic linguistic and cultural experiences by offering pre-packaged outputs. On the other hand, if used thoughtfully, it holds potential as a new form of focal practice—enabling richer collaboration, intercultural dialogue, and more personalized learning pathways. Although Borgmann wrote before the era of AI, his ideas resonate with current debates around its educational use. His philosophy encourages educators to move beyond efficiency and convenience, advocating for the use of generative AI in ways that deepen cultural immersion and human interaction. By doing so, language learning can remain a transformative, ethically grounded, and human-centered endeavor in the age of intelligent technologies.

Limitations

AI models are capable of generating text that closely adheres to grammatical standards with impressive accuracy. For both language learners and educators, this precision offers a valuable tool for understanding the structural components of language and achieving accurate translations. However, language is far more than a system of syntax; it is inherently tied to culture, history, and shared human experiences—elements that are dynamic and often rooted in specific contexts. This is where authenticity becomes crucial. Authentic language use encompasses nuanced expressions, regional sayings, dialects, idioms, and culturally embedded meanings that give a language its unique character. Authenticity bridges the gap between basic textual comprehension and a richer, context-sensitive grasp of meaning and intent (MacDonald et al., 2006). For example, a generative AI system may be able to translate an idiom or expression from one language to another with grammatical precision, yet fail to convey the cultural, historical, or social significance embedded in that phrase. This absence of contextual depth can result in a superficial grasp of the language, lacking the deeper, meaningful connections essential for effective and authentic communication. This presents a dual risk. Firstly, learners may be exposed to a standardized, overly sanitized version of the language, missing its cultural richness and specific nuances (Kushner, 2003). AI isn't capable of identifying phatic meaning of words and phrases which is so important to make mutual understanding and successful communication between speakers. Like Eliza Doolittle in Jorj Bernand Shaw's 'Pigmalion' AI tools may answer in different register and create awkwardness and ambiguity. For example,

- Mrs. Higgins (at last conversationally): Will it rain do you think? Liza: The shallow depression in the west of these islands is likely to move slowly in the easterly direction. There are no indications of any great change in the barometrical conversation (Shaw, 1967: 69).

As the author points out, before the conversation begins, there is a long and uncomfortable pause, which Mrs. Higgins tries to fill by starting a conversation about the weather. However, Eliza interprets this purely phatic question as informative and responds with detailed climatological information. As a result of mixing phatic and factual questions, Eliza's answer seems ridiculous and causes loud laughter among listeners.

Secondly, miscommunication can occur—learners might use grammatically correct expressions that are culturally inappropriate or misunderstood in real-world settings. AI tools can't guess questions like საით[sait] Where to? Or სხვა[skhva] Other? Which Georgian people use while meeting their acquaintances after exchanging first greeting phrases.

Tackling these challenges calls for a comprehensive strategy. Although generative AI can provide a solid starting point, maintaining authenticity ultimately depends on human guidance and oversight. A promising path could involve collaborative workflows in which AI-generated content is carefully reviewed and enhanced by human linguists or educators.

The second important limitations AI set is a normalized language.

Language is a vessel for cultural, historical, and personal expression, where each community and individual brings nuances, local expressions, and cultural sayings (O.Yağiz, & S. Izadpanah 2013). Languages are repositories of stories, customs, feelings, and collective memories that defy standardization. Relying too heavily on generative AI for language learning risks exposing learners to a polished, standardized version of language—grammatically sound, perhaps, but stripped of local flavor and unique linguistic quirks. English, for example, evolves distinctly from London to New York to Mumbai, with each region shaping it through its own idioms, slang, and culturally embedded expressions. As AI-driven language tools become more widespread, there's a real concern that these regional nuances could fade, leading to a loss of linguistic diversity. To counter this, it's essential for AI developers, engineers, and designers to collaborate closely with language educators and researchers. AI language models must be trained on diverse, culturally rich datasets to truly capture the intricacies of real-world language use. Currently, however, generative AI systems tend to reflect Western-centric biases—whether related to gender, ethnicity, culture, socioeconomic status, or language. To broaden linguistic exposure, language learning platforms should incorporate targeted modules that highlight regional dialects and colloquialisms, helping learners gain a fuller, more authentic understanding of language in all its diversity.

Drawing on Borgmann's theory, generative AI should function as a supportive tool in language learning—enhancing, not replacing, human interaction and cultural understanding. Its role is to complement authentic human engagement, ensuring that technology reinforces, rather than diminishes, the development of genuine communicative skills.

The third limitation is critical thinking and creativity.

A major concern is the decline in students' capacity for critical thinking and creative expression when they become overly dependent on AI tools. At its heart, education is meant to cultivate curiosity—encouraging learners to question, challenge, and innovate through language. Critical thinking empowers students to analyze information, grasp underlying concepts, and form independent judgments. Creativity allows them to imagine, design, and communicate original ideas. These skills are not only essential for academic success but also for navigating today's digital world.

When learners rely too heavily on AI to answer complex questions, correct errors, or generate content automatically, they may disengage from the deeper intellectual effort that fosters true learning. This passivity can lead them to view AI-generated responses as definitive, weakening their ability to think critically and consider alternative perspectives or solutions. In the face of this growing trend, it is vital to reaffirm the role of human discernment, critical awareness, and active problem-solving in the learning process.

Furthermore, studies indicate that creativity flourishes in environments that encourage rule-breaking and safe experimentation. If AI-generated content becomes the norm, students might shy away from creative risk-taking, believing that the outputs provided by AI are the most valid or imaginative. This mindset can stifle originality and discourage learners from exploring new ideas or pushing creative boundaries.

To address these challenges, a balanced approach is essential. Educators should highlight AI's potential as a tool for support—not a replacement—for human abilities. By integrating AI into collaborative discussions, brainstorming activities, and open-ended projects, teachers can encourage students to engage both critically and creatively. One effective method is to involve students in generating content with AI, followed by reflective analysis of the creative process. While AI holds great promise for reshaping education, its use must be deliberate and thoughtful to ensure it enhances, rather than hinders, human potential.

Conclusion

In conclusion, generative AI offers both opportunities and challenges in the field of language education to overcome these limitations, a comprehensive and balanced approach is necessary. While generative AI can offer a solid linguistic foundation, it cannot replace the value of human insight. Ensuring authenticity in language learning calls for human guidance and collaboration. One promising path involves integrating AI-generated content with expert review and enhancement by educators or linguists, creating a hybrid model that combines the efficiency of AI with the depth of human cultural understanding.

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