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| RESEARCH ARTICLE

Bridging Enthusiasm and Caution: A Synthetic Review of AI Integration in English Language Teacher Education

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| ABSTRACT

The rapid advancement of generative Artificial Intelligence (AI) is transforming English Language Teacher Education (ELTE) and prompting renewed debate about the role of emerging technologies in language pedagogy. While current discussions often emphasize either the benefits or the risks of AI, a more balanced perspective is required. This synthetic review examines generative AI as a double-edged technology that offers significant pedagogical opportunities. However, it also raises concerns regarding pedagogical and ethical implications. Drawing on Albert Borgmann's device paradigm as a conceptual framework, the study critically examines the current literature on AI integration in language education. The review examines the pedagogical opportunities presented by generative AI in the context of language education. Generative AI can support personalized learning, assist teachers in developing interactive instructional materials, provide immediate feedback, and encourage creative collaboration between learners and AI systems. These capabilities may enhance learner engagement and promote more adaptive language instruction. Despite its advantages, generative AI introduces substantial challenges. AI-generated language may lack cultural authenticity and contextual nuance, and dominant training datasets may contribute to linguistic homogenization. Moreover, excessive reliance on AI tools may weaken learners' critical thinking and creativity. Thus, the study highlights the necessity of a balanced, human-centered framework for incorporating AI into language teaching.

| KEYWORDS

Generative Artificial Intelligence; English Language Teacher Education; AI-assisted Language Learning; Device Paradigm; Human-centered AI; Technology-enhanced Language Education; AI Ethics

| ARTICLE INFORMATION

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1. Introduction

Generative Artificial Intelligence (GenAI) is the latest advancement in large language model (LLM) technology. Unlike previous technologies that were employed primarily to structure or distribute content, GenAI is characterized by the capacity to generate content on the fly. These sophisticated models accept complex, multi-modal inputs-like text prompts and images-and utilize the information to generate novel, consistent outputs in various formats such as text, audio, synthetic imagery, and video [Fui-Hoon, 2023]. This fundamental shift from a retrieval tool to a creation tool is a central fork in the road for educational technology. In order to gain a proper appreciation of the consequences of GenAI for language learning, it is imperative to locate it in the general historical context of digital innovation, a period generally bounded from the mass commercialization of the Internet in the mid-1990s [Boden, 2018; Bozkurt, 2021; Creely, 2022; Luckin, 2016]. Over the past thirty years, we have witnessed educational technology evolve from simple computer-aided drills to complex networked digital learning environments. These

technologies have been increasingly integrated into teaching activity, their function being to promote the teacher's mission and individualize the student's educational pathway. Within the field of language teaching, overall, this revolution has been most remarkable. A range of technologies, from multimedia CD-ROMs and on-line dictionaries through interactive whiteboards, language learning software packages, and video conferencing technology, have been increasingly embraced to support the learning of foreign and second languages [Kruk, 2020]. They have become a core component of teacher practice, helping with everything from the learning of words and grammar exercises right through to supporting authentic cultural exchange. Generative AI, therefore, does not intrude at random but as the latest and revolutionary wave in this endless series of technological unities, promising or threatening, to revolutionize language learning and teaching methodologies.

The rise of generative AI is the principal, but intellectually logical, development along the continuing historical path of educational technology innovation. However, its sophisticated capabilities qualify it as one of the most far-reaching developments of the past decade. Public access to such powerful tools as ChatGPT, Bing, and Bard has exemplified an ability that transcends incremental enhancement, suggesting a paradigm shift in fundamental pedagogical processes and the character of knowledge creation and language use [Trust, 2023; Williams, 2023]. This groundbreaking ability is powered mostly by the advanced architecture of large language models (LLMs) like GPT-4. These models possess a previously unmatched ability to create text and multimodal output that is remarkably indistinguishable from human created content in terms of coherence, contextuality, and creativity. This makes them extremely useful instruments in language instruction. Their applications are manifold: they can provide immediate, personalized feedback on student output and support and demystify translation processes. They can also assist instructors in creating and modifying learning exercises and create interactive, naturalistic dialogue scenarios that were difficult to replicate in a classroom setting [Bown, 2012; Heaven, 2020; Lim, 2023]. A systematic review emphasizes that generative AI enables adaptive scaffolding and multimodal learning experiences, fundamentally enhancing how learners engage with content [Qian, 2025]. Similarly, a study argues that GenAI shifts education from passive knowledge consumption toward active knowledge construction, redefining the epistemological foundations of teaching and learning [Yusuf, 2024]. But this valuable resource is not always there. As explained by a recent empirical case study [Kohnke, 2023], meaningful and pedagogically sound integration of such tools can't be assumed. The study suggests a critical gap: teachers and students alike require specific, targeted training to utilize generative AI. This requires teachers to develop skills in strategic prompt engineering to direct the AI toward optimal outputs. More importantly, it involves rethinking and redesigning learning activities and assessments to fit an educational environment in which AI tools are widely integrated. Deploying the technology is insufficient without this simultaneous development of human capability.

One of the most important and compelling features of generative AI in language education is its sophisticated capability to dynamically customize content and provide accurate, digital feedback. This attribute positions it not as a replacement for the teacher, but as a powerful facilitator that can augment and strengthen the complex task of teaching [Galaczi, 2023]. Such a potential for personalization is the very opposite of much conventional language pedagogy, which has otherwise been based on standardized, "one-size-fits-all" curricula. Whereas these approaches have functioned sufficiently for the teaching of core content, they are now increasingly under attack. In a post-digital abundance world, learners are presented with an enormous and varied array of resources. These resources support all kinds of preferences and needs [Zhou, 2015]. Generative AI systems initiate a paradigm shift towards real personalization. By analyzing individual learner inputs and interactions, these systems can determine unique learning patterns and identify specific strengths and weaknesses. They can then alter the difficulty level, intensity, and structure of the course in real time accordingly [Su, 2023]. Empirical evidence supports this transformation. A meta-analysis demonstrates that generative AI has a significant positive impact on language acquisition, academic performance, and learner motivation, particularly in writing and interactive learning contexts [Fan, 2025].

This capability is particularly valuable in flipped and online classrooms. It can provide detailed, real-time feedback on aspects ranging from grammatical accuracy to lexical nuance and stylistic expression. Such feedback would be virtually impossible for a single instructor to deliver consistently to all students. This has the impact of profoundly augmenting the teacher's function, freeing them from trivial correction in order to practice more advanced forms of

teaching. It also ensures that the unique style and pace of each learner are addressed. Other than adaptation, generative AI excels as an initiator of engaging, interactive content development. It can be steered by a teacher to create a series of practice materials or by an inquirer looking for exploration of a particular topic. The co-creative process helps to ensure learner motivation. A liberating way of conceptualizing this role is to think of generative AI as a "virtual tutor" or learning co-partner. This type of AI companion could perform a broad variety of tasks: producing contextualized language drill content, structuring multi-step writing exercises, providing on-demand cultural and linguistic knowledge, providing error-corrective feedback, and tailoring tests to the level of individual proficiency. Perhaps most importantly, it could modify the speed of instruction and even shift pedagogical strategy based on analysis of student activity and performance in real-time. Lastly, the adaptive and dynamic natures of generative AI can make language learning a much more deeply personal, interesting, and enriching experience for every learner.

A growing body of research points to Artificial Intelligence (AI) as having tremendous scope for enhancing language learning [Liang, 2023]. Recent studies further demonstrate that this transformation is accelerating, with generative AI increasingly viewed as a core driver of innovation in teaching and learning systems [Alfarwan, 2025]. With the substructure technology developing at accelerated and ongoing levels, its significant bearing on the language education environment as a whole is gaining pedagogical attention. This has promoted a variety of responses: while some teachers and institutions are openly optimistic regarding its potential to change things. This is in turn subject to complementary and necessary calls for critical response. To embed AI is not a matter of plug-and-play; it requires careful, pedagogical consideration. It also demands a cautious, ethical process for its introduction into language learning curricula and frameworks [Liang, 2023]. This moment mirrors historical patterns of technological adoption in education over the past four decades. Each major innovation, from the personal computer to the internet, has brought new capabilities that changed how teaching and learning can happen. Generative AI is no different, offering novel affordances such as dynamic personalization and automated content creation that are only just beginning to be fully explored. But with these new possibilities come also considerable challenges, including ethical concerns about bias, questions about academic integrity, and a potential over-reliance on technology. Everyone needs to understand both the potential for change and the challenges involved so that students and teachers can succeed in this new environment.

The use of generative AI for the teaching of languages, while promising, is fraught with significant pedagogical and ethical issues that need to be explored in detail. One of them is the inherent quality of the generated content. AI-generated text is regularly shown to have extremely high levels of syntactical and grammatical correctness. However, it often lacks the deep, culture-embedded meaning found in natural human language. This cultural and contextual depth is a hallmark of authentic human communication [Pokrivcakova, 2019]. The subtle nuances of idioms, regional terms, and sociolinguistic meaning are lost or mangled in these systems, leaving students with an unnatural, decontextualized version of the language. This issue is generally a sign of a larger, more difficult challenge. It stems from the cultural assumptions present in the vast datasets used to train these AI systems. Relying on content produced by AI risks promoting a homogenized, standardized form of language. This can potentially reduce linguistic diversity. It may also prevent learners from developing the cultural sensitivity needed for genuine intercultural communication. Apart from issues of authenticity and bias, a second essential challenge lies in the potential erosion of basic human cognitive capacities. There is a genuine risk that the convenience of generative AI could compromise language learners' capacities for critical thinking and creative writing. If students habitually resort to AI bots to come up with ideas, plan arguments, or even form simple sentences, they will be passive recipients of language rather than active, critical creators. This sort of reliance threatens to weaken the very skills that language teaching should aim to develop. These include analytical thinking and the ability to form new ideas. It also affects metalinguistic awareness, which helps learners control their language use in specific contexts. Last but not least, language learning is a profoundly human activity, rooted in intellectual effort, creative problem-solving, and social interaction. Blind acceptance of generative AI risks reducing this rich, complex process to a simple interaction with a computer program. This can undermine the higher goals of humanistic education. Studies on academic reading and writing indicate that while generative AI can function as a cognitive scaffold, it may also lead to reduced critical thinking and increased dependency if used uncritically [Sanz-Tejeda, 2026]. This raises important

questions about the long-term impact of AI on learners' intellectual development. Language learning is inherently a human-centered process that involves creativity, critical thinking, and social interaction. Relying too much on AI can weaken these important elements and turn learning into a simple interaction with technology.

The integration of generative AI in language learning environments requires a systematic examination of its ethical implications. This responsibility primarily falls on language teaching professionals, curriculum designers, and institutional policymakers, who must anticipate potential challenges and plan accordingly. At the heart of this ethical challenge is the unparalleled power of the technology to create coherent, functional, and even stylistically beautiful texts at will. This capability fundamentally interrogates the longstanding differentiation between a student's innate, internally generated linguistic production and a text produced with the assistance of AI. This new paradigm places the teaching community in a position to address deep philosophical and practical concerns. These include questions about originality and authorship in the computer age. It also raises issues about the value of real struggle in learning and the nature of how humans acquire language abilities [Craig, 2022]. A real and immediate issue this creates in the classroom is that of equitable assessment. Teachers must consider whether a writing assignment created with heavy assistance or by an AI through advanced student prompting deserves full academic credit. They need to compare it to assignments produced through a student's independent intellectual effort. The question is whether both types of work should be treated equally in evaluation and analysis. This dilemma touches on the very heart of learning outcomes and academic integrity policies. Generative AI provides powerful tools, such as creating personalized practice materials, simulating conversational partners, and giving instant grammatical feedback. These features have the potential to transform language teaching. However, their use also raises serious ethical and pedagogical concerns. These difficulties, including bias, academic honesty, and psychological dependence, cannot be ignored. They require careful and thoughtful consideration at all levels, from daily lesson planning to the development of national educational standards. The most critical undertaking, therefore, is the formulation of a balanced and ethical approach. The goal must be to create a pedagogical framework that builds on the potential of AI as a tool for improvement. At the same time, it should promote a culture of critical thinking and uphold rigorous scholarly standards. It must also preserve respect for the humanistic and deeply cultural aspects of language learning. Furthermore, it emphasizes the need for ethical frameworks and AI literacy to guide responsible use [20]. Issues such as bias, transparency, and equitable access must be carefully considered to ensure that AI integration aligns with educational values. The central challenge, therefore, lies in developing balanced pedagogical approaches that leverage the benefits of AI while preserving the humanistic core of language education.

The above discussion serves as a starting point for further investigation, the general aim of which is to look into how key stakeholders can and should conceptualize the role of generative AI in language pedagogy and classroom life. The need for such conceptual work is made more urgent by the growing ubiquity of generative AI. It is increasingly affecting nearly every part of society, from education and the creative sectors to business and communication. Unless there is a thoughtful and systematic conceptualization of its role in language learning, the advent of ensuing practical recommendations, guided institutional policy, and successful pedagogical models will be necessitated by default and temporary. This study, therefore, aims to offer an initial perspective for engaging with this new reality. Its goal is to propel the discourse toward a critically thoughtful and meaningful integration.

2. Theoretical Concept

It is worth mentioning that English Language Teaching (ELT) is a dynamic field, and this trend has become more apparent in recent years due to the rapid advancements in technology. In the past, ELT was mainly limited to the traditional classroom setting, with a strong emphasis on direct instruction, a structured syllabus, and communication in the presence of the teacher. However, the advent of the digital age has significantly impacted these approaches. The development of computers and the internet in the latter part of the 20th century brought about new opportunities for teaching languages. The use of multimedia, such as audio and visual components, altered the way in which students engaged with the language being taught. Consequently, Computer-Assisted Language Learning became a crucial part of the learning process, which extended beyond the walls of the traditional classroom. Recent studies have highlighted the revolutionary role of artificial intelligence in English Language Teaching, with a strong focus on its capacity to produce natural conversational examples and provide

immediate feedback. Although the technological competence of such AI tools is quite remarkable, their use in different learning environments has raised a number of concerns. From a pedagogical perspective, the issue is not only about using AI tools to facilitate communication but also about aligning their features with basic teaching principles. The use of AI tools such as ChatGPT requires a complete overhaul of the conventional ELT paradigm. Educators are forced to walk a tightrope between using technology and achieving their teaching goals. It is imperative to understand the perspectives of English Language Teaching practitioners to navigate the challenges of advancing AI technology. This is especially important with the advent of ChatGPT. This is a critical juncture for language teachers, as they have the potential to influence the adoption of ChatGPT in language classrooms. As the debate on the potential of such technologies continues to gain momentum, there is a need to investigate the discourse on ChatGPT in the context of ELT. It is crucial to acknowledge that the education of language has always been founded on humanistic principles, reaching far beyond the boundaries of grammar and vocabulary instruction. It has been a tool for the promotion of cultural exchange, emotional engagement, and human connection. Although AI tools such as ChatGPT offer significant support in language education, they have inherent limitations. By definition, they cannot provide emotional depth, cultural understanding, or genuine interpersonal interaction. Therefore, the challenge at hand is to find a way to effectively utilize these tools while maintaining the humanistic foundations of language education.

The potential integration of generative AI in language learning and teaching can be examined through the lens of the 'device paradigm', a conceptual framework developed by Albert Borgmann, a philosopher renowned for his critical analysis of technology. In his seminal work *Technology and the Character of Contemporary Life* [24], Borgmann argues that modern technologies, which he terms 'devices,' tend to alienate people from the world. This includes alienation from cultural and linguistic dimensions. While these technologies make the provision of goods and services highly efficient, they often obscure the underlying processes that give life its meaningful structure. This concealment can reduce human engagement with the world, limiting opportunities for authentic connection, reflection, and the cultivation of meaningful experience. These elements are particularly significant in the context of language learning and cultural education [Borgmann, 1984]. Borgmann's philosophical position is rooted in the belief that technology should enrich human life, not reduce it. Borgmann contends that the device paradigm encourages a passive relationship with technology. It emphasizes ease of use and comfort overactive engagement with the environment and cultural context in which one lives. In his more contemporary work, 'Real American Ethics' [Borgmann, 2006], Borgmann develops this idea further by promoting a return to what he calls "focal practices." These are practices that build community, interpersonal relationships, culture, and active engagement with the world. Borgmann believes these practices directly oppose the dehumanizing influence of modern technology on everyday life. This phenomenon is most apparent in Western culture but is increasingly visible in other cultures as well. Borgmann challenges us to reevaluate the human relationship with technology. He suggests a more deliberate and intentional approach that values presence and engagement in everyday life [Borgmann, 2006]. In consideration of the recent development of generative AI, Borgmann's concepts are relevant to current knowledge of this technology in two significant ways. First, in light of the device paradigm, questions arise about the impact of generative AI on human experience. Specifically, it is unclear whether AI further distances humans from authentic cultural and linguistic engagement. In contrast to previous technologies, generative AI is arguably more dynamic, interactive, and autonomous. It goes beyond the instrumental commercialization that Borgmann originally critiqued. Second, it is possible that generative AI could be incorporated into new forms of focal practices. These practices integrate people, environment, culture, language, individual expression, and community through the mediation of intelligent technologies. Despite the fact that Borgmann's writing was produced before the emergence of generative AI, his philosophical ideas are still very pertinent to current practices in foreign and second language learning. On the one hand, Borgmann's idea of the device paradigm promotes a sense of the role of such technology in enabling engagement with language in digital culture. However, it also raises questions about whether generative AI can alienate learners from real cultural and linguistic experiences. These experiences are at the core of effective language learning. This concern emphasizes the need to foster critical engagement with technology in the learning process. On the other hand, Borgmann's focus on focal practices highlights the need to use generative AI in ways that foster real community connections and engagement. This approach can enhance cultural and linguistic immersion in second language learning.

In conclusion, Borgmann's philosophical approach highlights the need for educators to use generative AI in ways that emphasize deep cultural engagement and communicative interaction. It should focus on more than just linguistic ability or functional outcomes. By applying these philosophical tenets, the development of generative AI tools can be guided to enhance human agency and participation. This approach adds value to the language learning process. It does so through the appropriate and ethical integration of technology with human interaction.

3. The Transformative Potential of AI in Language Learning

Considering how generative AI may interact with learners and integrate into language education, four key opportunities emerge. These possibilities highlight areas where AI can expand traditional practices, offering new ways to innovate in second language acquisition and academic language instruction.

3.1 The Potential for Individualized Learning

One of the major issues in second language learning is the standardized approach to education, which tends to neglect differences in learning and interaction [Zhou, 2015; Renau, 2016]. The emergence of Generative AI presents a significant remedy for this issue, which disrupts the existing paradigm by offering a personalized learning experience for each learner. Generative AI has the potential to revolutionize language learning by allowing for real time adaptation and content generation [Borgmann, 2006; Baidoo-Anu, 2023; Brynjolfsson, 2023; Vandewaetere, 2014]. This paradigm shift occurs from a rigid curriculum to an adaptive, 'focal practice' that focuses on personalizing the learning experience for each student. For example, an AI-based system can adapt learning materials to suit a learner's preference, offering more visual content to one student and additional grammar exercises to another. This creates an adaptive and culturally relevant learning environment [Grassini, 2023].

This move towards customization changes the student from a passive recipient to an active agent in their own educational experience. By clarifying the process of learning rather than obscuring it, this technology creates a stronger connection between the student and the cultural context of the language acquisition experience. This idea is consistent with Borgmann's philosophy [Major, 2021]. This experience also increases retention and makes the acquisition more culturally relevant. Most importantly, this approach to real-time progress based on individual strengths can counteract the frustration often found in more standard models. It can also help create a more confident and motivated student [Chen, 2021].

Beyond individual adaptation, generative AI also facilitates continuous feedback loops. Learners receive immediate, targeted feedback on their responses, from grammar and vocabulary to stylistic nuances, enabling them to adjust their learning strategies dynamically [Li, 2023]. Such instantaneous, personalized feedback is often impossible in traditional classrooms due to time and resource constraints, yet it is central to creating a responsive learning environment [Godwin-Jones, 2019]. Research suggests that sustained real time interaction with AI tools reinforces learner autonomy and supports faster acquisition of linguistic competences [Huang, 2021]. Moreover, the ability of AI to integrate multimodal content, including text, audio, visual cues, and interactive exercises, enables a richer and more immersive experience [Zhang, 2020]. Learners can engage with authentic language use and cultural references in ways that static textbooks cannot replicate [Godwin-Jones, 2019]. This immersive approach not only strengthens linguistic competence but also enhances intercultural awareness, which is essential in second language acquisition [Stockwell, 2022].

Generative AI introduces a new, expansive model of language education. This model shifts away from standardized group learning toward a more personalized and culturally informed approach. This holds out the promise of a future of personalized education that would be of immense benefit to second language learners. However, the inclusion of AI in this industry will also face stiff challenges.

3.2 Developing Interactive Learning Materials

One of the main advantages of generative AI is that it can assist teachers in creating interactive content, turning passive language learning into an active, engaging experience [Grassini, 2023; Bozkurt, 2023, Tlili, 2023]. For this to

happen, the technology must be used to enhance, not reduce, human abilities, as Borgmann's concept suggests [24]. It is essential that there is a move from passive engagement with technology to active, critical engagement with it. This is particularly true with the advent of generative AI, which is changing the face of language education by moving away from static resources. As opposed to conventional resources such as textbooks and online materials, generative AI is interactive. It combines the process of teaching and testing in a seamless way. It can immediately recognize if a student is having difficulty with a text. It then provides the necessary explanations or exercises to continue the learning process. This is a highly interactive and dialogic approach to education. Studies have shown that this approach allows the student and the technology to develop a true partnership, with the AI not just working with the student but actually becoming an interactive collaborator in the process [Kim, 2022; Liu, 2021; Sanders, 2021].

The impact of generative AI on language learning is substantial. Language is a skill that requires active interaction and real communication. While it involves learning words and grammar, it also requires meaningful dialogue or interaction. This can be achieved by generative AI, which can simulate interactive dialogue. This provides practice in speaking fluently and communicating effectively in specific contexts, similar to real-world language use [Bozkurt, 2023]. This interactive style can encourage a more exploratory and participatory style of learning. This allows learners to take part actively, experimenting with new grammar or new words, thus getting immediate feedback. This type of environment, where mistakes are corrected in real time, can instill confidence and creativity, both of which are essential in mastering a second language [Woo, 2021]. Moreover, by using AI's innovation potential, learning content can be adjusted dynamically to keep learners engaged. For example, if a learner has mastered a particular concept, it can be adjusted to include more complex or challenging content, thus going beyond a standard, one-size-fits-all curriculum.

Generative AI fundamentally alters the function of educators and curriculum developers, allowing them to generate adaptive and modular content in a quick and efficient manner. Rather than designing linear and static curricula, they can work with AI to generate rich sets of resources such as videos, quizzes, and exercises. The AI can then dynamically select the content delivered to learners based on their performance, strengths, and needs. This new approach to the pedagogy of language education fundamentally changes the nature of the delivery of content, moving it from a passive to an interactive experience. By moving the learner from a passive to an active role, generative AI creates a better experience for the learner, moving towards a holistic approach to the delivery of the curriculum.

3.3 Innovating Feedback Practices

Feedback is the bedrock of second language education, as it provides the essential link between a learner's current level of competence and desired level of competence [Nassaji, 2021]. Nevertheless, conventional feedback from teachers, tutors, or technology is often limited in terms of its delayed, generic, and static nature [Lipnevich, 2021]. The advent of generative AI provides a revolutionary leap forward. It offers instantaneous and dynamic feedback that caters to the learner's unique needs in real time. This provides for a range of "focal practices" that have the potential to enhance the learner's relationship with both the instructor and the learning community. This is in line with Borgmann's assertion that technology should enhance, rather than detract from, human experience.

One major disadvantage of the conventional approach to feedback is the time it takes. There is usually a wait of days or even weeks to get feedback on the student's work. This is quite disruptive to the smooth process of learning, which is so important in the acquisition of language. By the time the student receives the feedback, they may have already progressed to other areas of study, and it is hard to make use of the feedback on the previous work. The other disadvantage is that the feedback is usually static, meaning it is a "snapshot" of the student's performance at a particular time. As the student progresses and develops, the feedback is no longer useful since it does not address the student's changing needs.

Generative AI represents an important shift in the delivery of feedback, from an outdated model of delayed and static feedback towards a more dynamic process in real time [Su, 2023; Baidoo-Anu, 2023; Qadir, 2023]. It has the

potential, under the supervision of educators, to immediately analyze the work of students, allowing them to receive instant feedback in the process of learning. For instance, it may be able to identify grammatical errors in the construction of a sentence or offer specific support in the pronunciation of words by a beginner. This enables learners to correct mistakes immediately before they become embedded. Moreover, generative AI feedback is dynamic in nature. It continuously processes the learner's input, making the feedback more adaptive. For example, if the learner is consistently having difficulty in a certain area, the AI system can automatically provide more in-depth feedback in that area.

Although specific studies on the effectiveness of generative AI in this process are still in their infancy, its capacity for revolutionizing it is undeniable. Such technology has the power to eliminate the need for learners to go through general information sources in an effort to address their language problems. It can also greatly reduce the waiting time for learners to comprehend their level of understanding. Instead, it will create an ongoing cycle of practice, feedback, and correction. Such an approach is believed to greatly improve knowledge retention as well as learners' overall linguistic competence. Moreover, this approach of instant feedback will encourage learner autonomy. It has the power to empower learners to assume full responsibility for their learning process. It will encourage them to self-pace their learning and make any necessary modifications based on the guidance they receive.

Generative AI models address an important educational need by replacing delayed and static feedback with immediate and dynamic feedback. This will provide language learners with an educational experience that is more fluid and dynamic. However, critical analysis of this new phenomenon is important because AI-generated feedback might lack the nuances of context. It could also diminish the educator's role as a mentor and reduce the learner's autonomy. Feedback is a relational experience between the educator and the learner, which the introduction of AI has the potential to disrupt.

3.4 Unleashing Creative Potential

Generative AI brings together technology and creativity in a way that promises a future where human creativity is not only improved but also transformed [de Cremer, 2023; Mikalef, 2021; Moruzzi, 2021]. This is seen in the production of texts and images. In the conventional sense, texts are created only by an individual's experience and intuition. However, generative AI can be seen as a collaborative tool. It can be used to help artists brainstorm new ideas and explore various styles and points of view. It can offer suggestions for alternative expressions, develop initial ideas, or create original texts with minimal prompts. The use of this technology does not diminish human creativity but enhances and complements it by using the vast potential of AI and its ability to create a rich and complex creative landscape.

Generative AI can be applied not only to text but also to the generation of visual content based on written descriptions or images uploaded by the user [Nah, 2023; Roose, 2022]. The functionality of this AI allows the instructional designer to enter the initial concept or sketch and generate a set of design options, visual themes, and color schemes in return. The role of generative AI is to assist language education as a collaborative partner. It provides educators, learners, and designers with new perspectives, original text, advanced translation tools, and adaptable visual media. The collaboration of human creativity with the power of AI is believed to expand the development of unique educational materials. It can also enhance learner resources beyond the limits of conventional educational methods [Horvati´, 2021, Peeters, 2021].

4. Navigating the Drawbacks of Generative AI

Despite the substantial promise of generative AI technology in language teaching, a balanced and critical assessment requires attention to its potential drawbacks and limitations. It is frequently described as an indispensable innovation. Generative AI can personalize instruction and challenge traditional pedagogical practices [Humble, 2019; Tzirides, 2023]. However, its promise must be weighed alongside a careful consideration of its inherent challenges.

4.1 Questioning AI Accuracy and Authenticity

A basic problem with AI and language generation is how it can be both accurate and authentic. Accuracy refers to the grammatical and structural aspects of language. Authenticity refers to the true essence and meaning of culture and humanity embodied in the words we use [Qadir, 2023]. Generative AI can handle the former with ease, as it can be trained on massive amounts of data. It can consistently produce grammatically correct sentences, which is a significant help for those learning the mechanics of a language [Brynjolfsson, 2023]. However, language is more than just the words we use and the way we put them together. It is a dynamic expression of culture, history, and our collective experience as humans, with all the nuances and complexities that come with it. And this is where authenticity really matters. Authenticity is the essence of communication. It reflects the difference between the literal meaning of the words we use, and the true meaning rooted in the culture and history behind them. The problem, therefore, lies in the gap between the two: the technical and the true essence and meaning of humanity and culture [MacDonald, 2006].

Whereas the generative AI may be able to correctly translate an idiom or phrase from a technical standpoint, it is often unable to translate the underlying cultural, historical, or social significance. This leads to a "meaning gap," where a shallow understanding of the language is achieved that is insufficient for truly effective communication. This poses a two-fold risk. First, a learner may gain a standardized, culturally vacuous version of the language, stripping it of its true richness and complexity [Kushner, 2003]. Second, it poses the risk of severe miscommunication. A learner may translate a phrase correctly from a grammatical standpoint but incorrectly from a cultural standpoint. To overcome this challenge, a two-fold strategy must be employed. While the generative AI may be a useful tool, human intervention is necessary to guarantee authenticity. A symbiotic relationship may be a viable solution. In this approach, the generative AI output is reviewed, placed within context, and supplemented by linguists or educators.

Therefore, as generative AI technology becomes more integral to language education, achieving a balance is critical. This balance must be maintained between its technological accuracy and cultural authenticity. In order to achieve a holistic approach to learning, it is critical that educators address this challenge. According to Borgmann's principle, technology should foster a sense of connection rather than distance [Borgmann, 2006]. Thus, AI technology should be utilized within a group-based, collaborative learning environment that is ethically bounded. It should also be richly supplemented with diverse cultural resources to ensure a human-centered approach to education.

4.2 The Problem of Linguistic Homogenization

The rapid adoption of advanced generative AI technology is transforming fields such as language teaching and learning [Köstler, 2022; Yu, 2023]; however, its capacity to accommodate diverse linguistic patterns remains an active area of research [Ahuja, 2023]. One of the major problems that has come to light as a result of this integration is the technology's propensity towards producing homogeneous or culturally centered languages. The problem lies in the very nature of how these technologies are designed. They are often built using massive datasets centered on the most prominent, and often Western, linguistic patterns. The end result is a technology that marginalizes the rich diversity of languages spoken around the globe. It fails to account for important regional dialects, local languages, and the distinctive features of their cultures. However, languages are more than just systems of communication. They represent the very essence of our cultural heritage, our personal identity, and our community's shared history. Language is more than its standardized form; its true essence lies in its diversity, which can never be standardized.

There is a risk that over-reliance on generative AI will expose learners solely to a "standard" form of a language. Although grammatically accurate, it may omit the distinctive features, flavors, and cultural idiosyncrasies of regional speech. English has a distinctly different flavor depending on local idioms, slang, and accents. With the advent of AI tools in language learning, there is a genuine risk that these unique characteristics will be lost, leading to a homogenization of languages worldwide. To prevent this, there needs to be a direct dialogue between AI developers, linguists, educators, and cultural experts. It is vital that training data becomes much more representative and goes beyond the current Western-centric biases. These biases, whether related to gender, ethnicity, economy,

or culture, must be addressed to capture the true richness of language variations across the globe. This might be achieved by incorporating specific modules on regional dialects and colloquial speech within language tools.

Although the scope of AI in the education of languages is substantial, it is imperative to be cautious of the standardization of language and the loss of local nuances. The preservation of linguistic diversity is key to keeping the language fresh, relevant, and intimately related to the culture. This is in complete alignment with Borgmann's proposition of keeping the community ties alive. Thus, the use of generative AI in the education of language should be to serve as a supporting framework to human interaction and cultural understanding, but without replacing it.

4.3 Risk to Critical Thinking and Creativity

A major concern is the risk of compromising the critical thinking and creative skills of the students because of overdependence on AI tools [Bown, 2012; de Vasconcellos, 2021]. At the core of all educational endeavors is the need to nurture intellectual curiosity by asking, critiquing, and creating using language. Critical thinking enables the student to evaluate information, comprehend the essential concepts, and draw their own conclusions. Creativity enables them to conceive, organize, and express new ideas. These cognitive skills are not only significant for academic achievement but also for participation in the digital world [Padget, 2013].

Excessive dependence on AI systems also tends to cultivate a passive mode of learning, in which students do not remain active participants in their learning process. For example, if a student is relying heavily on AI to solve complex problems, correct mistakes, or produce texts, he or she might not be engaging in the intense mental activity required to truly learn. As a result, he or she might be inclined to accept AI results unquestioningly as definitive answers. This occurs without engaging in further thought or exploring other possibilities. Therefore, with the growing use of generative AI, it is very important to cultivate human attributes such as critical thinking, in-depth scrutiny, and problem-solving.

Moreover, it has been found that "creativity thrives in environments where conventions can be safely challenged" [65]. If the AI-generated content becomes the new standard, students might not be encouraged to be creative. They may simply accept the AI's results as the only benchmark for creative work. This would be a dangerous path for the students to follow, as it would lead to a lack of originality and creativity. A balanced approach would be the best solution. The AI would be presented as a tool that would assist the students, rather than replace them. This would be done by using strategies such as collaborative discussions and brainstorming sessions. These approaches ensure that critical and creative skills remain the focal points for the students. AI is certainly a powerful tool for transformational change, and it should be used with caution so as to maximize, rather than minimize, human potential.

5. Principles for Ethical Integration

The use of generative AI in language learning raises serious ethical considerations. As this technology becomes increasingly integrated into educational contexts, it is crucial to examine the potential implications for learners, educators, and the broader academic ecosystem. These implications extend beyond technical performance, encompassing issues of fairness, equity, academic integrity, and cultural sensitivity. Moreover, the rapid advancement of AI tools necessitates ongoing reflection on how their deployment may influence critical thinking, creativity, and the development of autonomous learning skills. This section will discuss three major ethical issues, adding an important dimension to the technological and educational discourse presented above. It will also highlight the need for human oversight, responsible implementation, and informed policymaking.

5.1 The Question of Authorship and Originality

Generative AI has revolutionized the field of content creation, presenting new opportunities in education along with many complexities. The biggest challenge in this regard is the line between purely human creative works and those created in association with AI, especially in academia. As AI becomes proficient in generating unique content, the issue of ownership is increasingly important [Eshraghian, 2020]. The issues of originality, creativity, and fair use become particularly contentious in the realm of AI-generated content [Ganai, 2025]. Moreover, current intellectual

property rights (IPR) frameworks are increasingly inadequate in addressing the unique characteristics of AI-generated works. These challenges stem from AI's role in the creative process, which fundamentally disrupts conventional notions of creativity and originality [Ganai, 2025].

When educators or students use AI tools in creating or improving content, it leads to a redefinition of traditional notions of creativity or originality. The fundamental question that comes up is, who is the actual creator or author, the educator or student who gave the prompt, or the AI that produced it? This goes beyond ethics; it touches on the value or authenticity of produced work, especially in academia or education, including language learning.

However, as language education incorporates AI into the creative process, it is important to define and adhere to ethical standards. It is important to recognize the collaborative process of human-AI creation in order to promote transparency and respect the concept of human authorship. However, there is an ongoing debate about whether AI-assisted creation can be considered truly authored: "Can work co-created with AI be said to be authentically authored?" [Nah, 2023]. For Borgmann, authenticity and human connection are critical in maintaining human values and enhancing our lives. Therefore, as we live in an era dominated by generative AI, it is critical to sustain our humanity.

5.2 Human-AI Collaboration in Creative Work

The application of artificial intelligence in the development of learning content triggers a rather complex discussion on the issue of originality and ownership [Su, 2023]. In the event that teachers and learners choose to use AI as a tool in their creativity, there is a rather blurred line between human creativity and the output of AI [Creely, 2022]. In the past, creativity was always seen as the sole preserve of human beings. However, with the application of AI, this is no longer the case. A rather complex question is raised in the event that human beings and AI work together in the creation of a piece of work: Who is the owner of the work, human beings or AI, or is it a hybrid?

5.3 Ensuring Integrity and Transparency

In light of the increasing application of AI in language education, there is a need for a strong commitment to transparency [Zhuo, 2023]. Indeed, as language education increasingly applies generative AI, there is a pressing need for educators to clearly explain their application of AI. This is a critical step in promoting a shared awareness and critical judgment among educators and students about AI. However, it is worth noting that achieving such a high level of transparency is a major challenge, given the dynamic nature of technology.

Moreover, a clear assessment framework can help ensure the authenticity of students' work. It does this by distinguishing between the students' original work and AI-assisted work [Crawford, 2023]. The educational institutions that support these clear and ethical norms of AI can ensure the academic integrity of students in this era of digital transformation [Mhlanga, 2023]. Nevertheless, the challenge of separating AI-assisted work from human work is a complex task, and in many cases, it is impossible to make a clear distinction.

6. Conclusion

The emergence of generative artificial intelligence marks a decisive turning point in the evolution of language education. It extends a long trajectory of technological innovation into a new paradigm of dynamic, adaptive, and co-creative learning. As this study has demonstrated, generative AI holds significant transformative potential. It enables highly individualized learning pathways and supports the development of interactive and immersive materials. Additionally, it redefines feedback as an immediate and continuous process and expands the creative possibilities available to both learners and educators. These affordances position AI not merely as a technological enhancement, but as a catalyst for rethinking fundamental pedagogical practices in English Language Teaching.

At the same time, this transformation is accompanied by profound pedagogical and ethical challenges. The tension between linguistic accuracy and cultural authenticity remains a central concern. AI-generated language may lack the sociocultural depth necessary for meaningful communication. Similarly, the risk of linguistic homogenization threatens the diversity and richness that define authentic language use. Equally critical is the potential erosion of

learners' cognitive engagement. Over-reliance on AI may weaken the development of essential skills such as critical thinking, creativity, and independent meaning-making. These capacities lie at the heart of language learning.

The study further highlights the urgent need to address ethical complexities related to authorship, originality, transparency, and academic integrity. As generative AI blurs the boundaries between human and machine-generated content, traditional assessment models require careful reconsideration. Intellectual property frameworks also need to be re-evaluated in this context. The role of educators, institutions, and policymakers becomes pivotal. They are responsible for establishing clear guidelines that promote responsible, transparent, and equitable use of AI technologies.

Drawing on Borgmann's concepts of the device paradigm and focal practices, this study argues for a human-centered approach to AI integration. Rather than allowing technology to obscure or diminish meaningful engagement, generative AI should be deliberately embedded within pedagogical practices. These practices should foster interaction, cultural awareness, and reflective learning. In this sense, AI must function as an augmentative partner, enhancing human agency rather than replacing it.

Ultimately, the successful integration of generative AI in language education depends on achieving a careful balance between innovation and humanistic values. This requires not only technical adoption but also pedagogical redesign, critical awareness, and ethical responsibility. By aligning technological capabilities with the core aims of language education, including communication, cultural understanding, and intellectual growth, educators can harness the potential of AI. This approach helps preserve the fundamentally human nature of language learning.

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