

**EXAME DE PROFICIÊNCIA EM LÍNGUA INGLESA
DOUTORADO EM LINGUÍSTICA**

Referência de Correção

Texto “**Artificial intelligence – an ally or a foe of foreign language teaching?**” de autoria de Oana BUȘE e Mihaela CĂBULEA, extraído de Land Forces Academy Review Vol. XXVIII, No. 4(112), 2023.

1. Com base no texto, cite quais as aplicabilidades da IA no aprendizado de línguas (1,5) e comente brevemente sobre cada uma delas? (2,5)

De acordo com o texto, as aplicabilidades da IA, no aprendizado de línguas, são as seguintes: a) como assistente de redação; b) como máquina de tradução; e c) como *chatbot*.

Os assistentes de redação auxiliam os usuários no aprimoramento de sua escrita, sugerindo melhorias na estrutura das frases, na escolha das palavras e no estilo geral de redação para aumentar a clareza e a coerência do texto. Ainda esse tipo de ferramenta permite que possíveis ocorrências de plágio sejam verificadas.

Já a IA como máquina de tradução é capaz de traduzir texto e fala em vários idiomas com rapidez e precisão, possibilitando a comunicação entre indivíduos ou empresas em diferentes idiomas. Nesse sentido, este tipo de ferramenta tem se tornado muito útil não apenas para estudantes de línguas estrangeiras, mas também para viajantes e empresários, por exemplo.

Por fim, como *chatbots*, a IA atua como um assistente virtual, oferecendo suporte em tempo real e também respondendo a perguntas e automatizando tarefas, como, por exemplo, o dispositivo *Alexa*, que é comercializado pela empresa Amazon. Nesse sentido, os *chatbots* que têm como base a IA podem, inclusive, também auxiliar no processo de aprendizagem de línguas estrangeiras, uma vez que propiciam aos alunos oportunidades de prática da língua que está sendo aprendida em situações reais de uso.

2. Segundo linguistas, quais preocupações éticas são levantadas em relação ao uso de IA na educação? (2,0)

A partir do posicionamento do linguista Noam Chomsky, citado no texto, há a sinalização de que a IA pode trazer, do ponto de vista ético, problemas relacionados ao plágio, uma vez que se tornaria mais difícil para os professores

atestar em que medida se trata de um texto autoral por parte dos alunos ou de uma situação de plágio.

3. Como a personalização do aprendizado por IA beneficia os alunos no estudo de línguas estrangeiras? (2,0)

No que tange ao ensino de línguas estrangeiras, a IA possibilita o desenvolvimento e a aplicação de técnicas que permitem atender pontualmente às especificidades apresentadas pelos alunos. Uma vez que estimula o pensamento crítico e também a criatividade dos alunos, a IA permite o estudo de línguas estrangeiras de acordo com as demandas apresentadas pelos alunos nos dias atuais.

4. Considerando a existência de argumentos a favor e contra o uso da IA no aprendizado de línguas, qual a opinião do autor e quais orientações são fornecidas aos educadores para um uso eficiente da IA? (2,0)

O autor destaca que, diante das vantagens e das desvantagens sinalizadas no texto acerca do uso da IA no aprendizado de línguas, o que deve haver é a busca de um equilíbrio justamente entre as vantagens e as desvantagens apontadas. Nesse sentido, segundo ele, a IA deve atuar como um meio para ajudar no processo de aprendizagem, não devendo, portanto, ser encarada como uma forma de substituição do papel do professor.

ARTIFICIAL INTELLIGENCE – AN ALLY OR A FOE OF FOREIGN LANGUAGE TEACHING?

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ABSTRACT

The rise of technological advancements and the extensive use of Artificial Intelligence (AI) in many domains of activity nowadays have triggered a paradigm shift in the educational field which seems to be facing multiple challenges in order to adapt to the newly emerged needs of a highly digitalized society. Online education has become a “revolution en masse” (Nikon, 2023) providing a fertile ground for a seamless blend between Artificial Intelligence and language studying. Foreign language trainers have become aware of the benefits of this transformational process and have been trying to take advantage of the new opportunities by implementing them into the educational process and tailoring them to the real needs of the learners. While AI has been constantly acclaimed for its potential to improve learning outcomes, there are voices who contend against its use, stating that the negative implications outweigh by far the benefits. This paper aims at analysing the advantages and disadvantages of an AI-powered teaching-learning process and at highlighting specific applicability when it comes to foreign languages.

KEYWORDS: advantages, applicability, artificial intelligence, disadvantages, technology

1. Introduction

Artificial intelligence (AI) represents a branch of computer science involving smart machines able to perform tasks that would typically require human intelligence. Since AI is an interdisciplinary science with multiple approaches, all the subsequent advancements have triggered a paradigm shift in various fields of activities.

Typically, AI systems operation relies on large amounts of data input that are analyzed for correlations and patterns, and on using these patterns to make predictions

about future behaviour. For example, a chatbot makes use of text input to generate real life interactions with people while other generative AI techniques can create realistic text, images, or media content.

According to Ed Burns (2023), AI programming involves human-like cognitive skills such as learning, reasoning, self-correction and creativity in order to generate the appropriate algorithms for the desired outcome. When it comes to the educational field, these skills translate into detailed descriptions of natural languages and a

better understanding of the mental processes that occur in the human brain while communicating. As a result, AI-powered instruments have been created and seem to have become more of an ally and less of a foe for students and teachers alike. Artificial Intelligence “*offers the possibility of learning that is more personalised, flexible, inclusive, and engaging. It can provide teachers and learners with the tools that allow us to respond not only to what is being learnt, but also to how it is being learnt, and how the student feels. It can help learners develop the knowledge and skills that employers are seeking, and it can help teachers create more sophisticated learning environments than would otherwise be possible*” (Luckin, Holmes, Griffiths and Forcier, 2016, p. 11).

2. Advantages

Teaching foreign languages with the use of technology involves working and improving the teaching techniques, adapting them to the specificity of the present times. Advancements in technology provide digital resources which significantly contribute to language learning. As Bacton Loveless, quoted by Turayeva and Kholmurodova (2002), said: “*Traditional classroom settings restrict the time of students’ capabilities. When you offer technology tools, it opens the door to the whole universe*”. It offers endless learning opportunities and benefits, like the ones mentioned in what follows:

- **Personalized learning**

Personalizing the learning experience represents the first benefit of using AI in the teaching process. It is a versatile and flexible approach, as the needs of all students can be fulfilled, which is hard to achieve in traditional classes. Starting from the students’ input while learning, AI-generated tools customize content, providing materials to meet their specific needs, and offering the opportunity to study at their own pace and level. Moreover, teachers themselves can collect specific data about the learners, like

their interests or learning styles, which can be used for predicting future performances, enhancing personalized instruction and fostering students’ involvement in the learning process.

- **Instant feedback**

While guiding learners throughout the personalized journey of learning, AI can easily spot the weak areas in their performances and assist them with additional materials and support to improve. AI language platforms or apps provide instantaneous feedback automatically, contrary to traditional type of feedback which may be given after a while. Besides the fact that waiting for a long time for a certain test result can be emotionally exhausting, it can also be less effective, since students may not accurately remember the entire context. With the instant feedback offered by AI tools, errors are promptly identified and explained in detail. Additional guidance is then provided, so that students fix the identified errors and avoid them in their future performances.

- **Objective, efficient assessment**

Another advantage provided by the use of AI tools is that assessment is more consistent and gives more objective feedback than other types of grading methods. In the traditional type of grading, there may be some subjective factors, like teacher’s biases, feelings or emotions, which are more likely to influence the evaluation process and a student’s performance. Due to the fact that AI works on some predefined criteria when it comes to evaluation, the assessment process is completely unaltered by factors that may typically affect objectivity in traditional contexts (e.g. halo effect). Moreover, AI does not experience exhaustion. It can assess a high number of students, in a small amount of time, without losing its objectivity and ensuring equity in evaluation.

- **Motivation boost**

As it has been mentioned above, with the help of AI tools learners find it easy to study by themselves, at their own pace and

in their own style. It is a great advantage especially for less confident students that most of the times feel uncomfortable or embarrassed when performing in the traditional learning environment, for fear that, should they make mistakes, they might face their peers' and teacher's judgemental opinions. This represents an important motivational boost which will definitely have a positive impact not only upon students' learning outcome but also on the development of their personality in general.

Motivation is also fostered through the fact that, with the help of AI instruments, an element of gamification is added to the learning process. AI makes it easy for teachers to develop interesting games, quizzes, and other interactive activities which deepen students' involvement, make the learning experience highly enjoyable and add the prospect of fulfilment, which leads to increased self-esteem and higher motivation.

- **Availability and accessibility**

AI breaks barriers and goes beyond the physical setting of the learning environment as it provides a vast database of learning materials that can be easily accessed by anyone, from anywhere, at any time. This is particularly suitable for students who may find it difficult to involve in the traditional learning process because of various factors or limitations, like physical disabilities or other family or work commitments. Thus, fair chances are given to all learners, since they all may benefit from a wide array of resources, valuable for their academic pursuit and learning outcomes.

3. Disadvantages

Technology has definitely changed the way education is conducted nowadays but we should be aware of the fact that not all that glitters is gold. Despite its undeniable usefulness, there is a high level of reluctance and concern when it comes to using AI in the teaching-learning process. It is highly important that we not overlook

its downsides and take them into account when developing a certain learning strategy. Among the possible drawbacks of AI usage for educational purposes we can point out the following:

- **Ethical issues concerns**

In an article analysing the pros and cons of using Chat GPT for education, Hayden Horner (2023) quoted Noam Chomsky, who, in an interview, voiced his contempt against the use of AI in education: "*ChatGPT is high-tech plagiarism; it undermines education. For years there have been programs that have helped professors detect plagiarized essays. Now it's going to be more difficult because it's easier to plagiarize*", said Chomsky. The linguist voices the concerns of all educators that regard AI tools as a way of limiting the production of original content and of encouraging taking credit for somebody else's work.

- **Limitation of creativity and critical thinking**

The employment of AI technology in foreign language teaching and learning stifles students' creativity and critical thinking. Learners no longer study by themselves and independent learning is dramatically limited, being heavily replaced by machines which provide the learning output while students fail to go through the entire cognitive and linguistic process. Thus, overreliance on AI tools leads to a lack of active involvement and a decrease in the development of critical thinking and other skills that students need in order to analyze information, and solve problems independently. For example, a student may insert a prompt and ask ChatGPT to generate an answer to a complex problem without fully understanding the underlying concepts. Upon receiving the answer, the student will not only miss the opportunity to develop problem-solving skills and strategies but also to fail and learn from possible mistakes, which has proven to be an efficient way to improve performance.

- **Lack of physical interaction**

While it has been demonstrated that AI can replace teachers as far as support and assistance are concerned, one should be aware of the fact that it cannot fully substitute the ‘human’ touch, the teachers and peers. Feelings and emotions are part and parcel of the learning process and students need permanent human interaction and emotional support from teachers and colleagues alike. What AI provides is an arid environment which lacks emotional comfort and intelligence, the result being a sense of alienation, disconnection from the learning process and from the active engagement, and hindrance to academic success.

- **Technological limitations**

Any AI learning tool functions based on a set of predefined data it has been trained on. No matter how large the amount of data is and how coherent and cohesive the responses are, an AI instrument is not able to sense the linguistic, cultural and topical subtleties. Consequently, the generated responses may be inaccurate, inappropriate or even misleading, which results in misunderstandings and faulty linguistic performances.

Another aspect that should be taken into account is the accessibility of AI-governed learning in close connection with technology knowledge and financial resources. Overlooking it may create a gap that might lead to learning inequity. On the one hand, some categories of students may not be technologically knowledgeable or skilful enough to use the learning apps, and, on the other hand, some may come from socioeconomic environments that do not ensure them access to digital equipment.

- **Dependence on technology**

As the use of AI-powered learning instruments increases, students are becoming more interested and reliant on technology and less interested in learning by themselves. Concerns are raised that overdependence on apps and programs that substitute human critical thinking skills

may have a long term impact, resulting in students not developing the necessary cognitive skills or academic success, which will certainly affect their personal growth and future professional accomplishments.

With AI we are 100 % dependent on technology and this entails a series of possible technical issues we may have to deal with. First of all, AI tools include most of the time some apps or software that are not foolproof. Even if they seem to run smoothly, there are some internal or external factors (e.g. software compatibility issues, failure to upgrade, system crashes, etc.) that may impact their functionality. Sometimes, these instructional programs go through updating sessions that can cause changes in their operation. As a result, users may be confronted with compatibility issues, impossibility to get the updated versions or even difficulty of accessing and using the apps themselves because the hardware itself is outdated or deteriorated. Fixing these problems requires expertise in the field and financial resources that not everybody possesses, which may restrict the usage to a limited number of people.

4. Applicability

The Artificial Intelligence has made significant advancements in various learning applications and it can successfully serve as an efficient writing assistant, an accurate translating machine, and a conversational partner (chatbot).

4.1. AI as a Writing Assistant

Writing assistants such as *Grammarly*, *ProWritingAid*, *ChatGpt* or *Hemingway Editor* possess important features that help users improve their writing, making it suitable for both students and educators, having various usages, like checking grammar and spelling, improving clarity and coherence, generating content, and detecting plagiarism. AI-powered writing assistants can detect and correct grammatical errors and spelling mistakes,

providing users with error-free content. They can also suggest improvements for sentence structure, word choice, and overall writing style to enhance the clarity and coherence of the text. Some AI tools are able to generate content, including articles, reports, or summaries, based on user-provided prompts or keywords. An even more important feature is that AI can identify instances of potential plagiarism by comparing text against a vast database of existing content.

4.2. AI as a Translating Machine

AI as a translating machine facilitates communication between individuals or businesses in different languages, promoting global collaboration and understanding, as it uses specific techniques to provide high-quality translations. AI-driven translation services are capable of translating text and speech in multiple languages quickly and accurately. Some AI applications offer real-time translation for conversations, making them valuable tools not only for language learners but also for travellers, business people, and global communication in general. AI can also be fine-tuned for specific industries or domains, ensuring more accurate translations in technical or specialized fields. The most popular translation services are *Google Translate* and *DeepL*. *Google Translate* supports translation between any pair of more than 100 languages and it enables translations of text, speech, and even images, making it a versatile tool for language translation needs. *DeepL* is known for its high-quality translations, especially in European languages and it uses neural networks to provide accurate and natural-sounding translations, making it a preferred choice for professional translators.

4.3. AI as a Chatbot

AI as a Chatbot serves as a virtual assistant, offering real-time support, answering inquiries, and automating tasks

in various fields of activity. Amazon's *Alexa* is a widely used chatbot that operates through voice commands, answers questions, and performs various tasks, making it a versatile dialogue partner. When it comes to foreign language learning it can be an effective conversational partner in the target language, as is it designed to engage in natural conversations with users, offering a personalized, and interactive, real life experience. Generally, chatbots enhance language learning by providing students with opportunities for real-world language practice, immediate feedback, and interactive engagement. For example, *Duolingo* is a popular language learning platform that includes a chatbot feature called "Duolingo Chatbots". These chatbots engage users in text-based conversations in the target language, helping learners practice their speaking, listening, and comprehension skills. *Babbel*, another language learning app, offers a chatbot component that simulates real-life conversations which covers various topics and encourages learners to respond in the target language. *Rosetta Stone*, another well-known language learning platform, includes a chatbot named "TruAccent" that helps learners improve their pronunciation by providing feedback on spoken language. Last but not least, *ChatGPT*, like other AI-based language models, can be highly applicable in language learning due to its natural language processing capabilities and versatility. It can serve as a virtual conversation partner for language learners as they are given the opportunity to engage in text-based conversations in their target language and improve their comprehension skills.

These AI applications continue to evolve and improve, providing valuable assistance and services in the educational field. However, it's important to note that while AI can assist and automate many tasks, human oversight and fine-tuning are always necessary and highly important in order to ensure accuracy and quality in these applications.

5. Conclusions

Undoubtedly, Artificial Intelligence has proven its potential to revolutionize learning, with unexpected and challenging opportunities open to both students and teachers. However, there are concerns regarding the prospect for AI to deeply affect the development of learners' critical thinking skills and to limit the human interaction, guidance, and support, which are crucial for students' development. The key is to strike a balance between the advantages and disadvantages of using

AI in the teaching – learning process, by admitting that AI-powered tools are a means to boost learning, being a complementary virtual facilitator; a partner, not a replacement for teachers. Educators should carefully consider all the implications when implementing AI in learning and make sure that it is used in a way that benefits students. The ultimate common goal of both learners and instructors should be to improve the learning outcomes and keep AI on their side, as an ally, not to turn it into a foe.

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