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THE USE OF ARTIFICIAL INTELLIGENCE IN DISTANCE EDUCATION: REFLECTIONS AND PROPOSALS BASED ON A LITERATURE REVIEW

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Abstract: This article presents a literature review from 2023 to March 2025 on the use of Artificial Intelligence in Distance Education, offering reflections and a pedagogical proposal. The proposal includes four stages: rule definition, digital competencies and authorship, comparison and reflection, and collaborative assessment. The results indicate the need to promote the critical and conscious use of Artificial Intelligence, contributing to quality education.

Keywords: Distance Education; Higher Education; Artificial Intelligence.

O USO DA INTELIGÊNCIA ARTIFICIAL NA EAD: REFLEXÕES E PROPOSTAS A PARTIR DE UMA REVISÃO DA LITERATURA

Resumo: Este artigo apresenta uma revisão de literatura realizada de 2023 a março de 2025 sobre o uso da Inteligência Artificial na Educação a Distância, propondo reflexões e uma intervenção pedagógica. A proposta inclui quatro etapas: definição de regras, competências digitais e autoria, comparação e reflexão, e avaliação colaborativa. Os resultados indicam a necessidade de promover o uso crítico e consciente da Inteligência Artificial, contribuindo para uma educação de qualidade.
Palavras-chave: Educação a Distância; Ensino Superior; Inteligência Artificial.

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EL USO DE LA INTELIGENCIA ARTIFICIAL EN LA EDUCACIÓN A DISTANCIA: REFLEXIONES Y PROPUESTAS A PARTIR DE UNA REVISIÓN DE LA LITERATURA

Resumen: Este artículo presenta una revisión de la literatura desde 2023 hasta marzo de 2025 sobre el uso de la Inteligencia Artificial en la Educación a Distancia, proponiendo reflexiones y una propuesta pedagógica. La propuesta incluye cuatro etapas: definición de reglas, competencias digitales y autoría, comparación y reflexión, y evaluación colaborativa. Los resultados indican la necesidad de promover un uso crítico y consciente de la Inteligencia Artificial, contribuyendo a una educación de calidad.

Palabras clave: Educación a Distancia; Educación Superior; Inteligencia Artificial.

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1 INTRODUCTION

Contemporary society is marked by significant advances, especially in the field of technology, which impact different spheres of human life, from personal relationships to the collective dynamics that govern the world of work, industry, and commerce. From micro to macro, these advances have been reconfiguring social, cultural, and economic practices, shaping a new way of living and relating to others and to the world. In this context, technology not only facilitates processes but also dynamizes and intensifies the circulation of information, people, and resources. Furthermore, "[…] technology serves for the permanent mobilization of people and things" (Lévy, 2001, p. 114).

Among these transformations, the increasingly intense use of the internet and digital platforms in carrying out everyday activities stands out. Online commerce has expanded exponentially, and banking services, transportation, accommodation, and entertainment have been reframed with the use of applications that replace in-person practices with digital solutions. Although these applications bring social effects and economic benefits, they also raise ethical questions that still lack reflection — questions that become increasingly urgent as humans and non-humans follow paths that are sometimes divergent and conflictual (Rosseti; Angeluci, 2021) and technologies advance at a much faster pace than human institutions (Klein, 2022).

In this scenario of intense technological evolution, Distance Education (DE) and Artificial Intelligence (AI), although not recent phenomena, gain prominence as they expand as a result of technological innovations. DE, for example, has more than a century of existence and has gone through several phases — from letters and radio transmissions to digital platforms that today enable synchronous interactions and increasingly sophisticated virtual learning environments, including AI. The latter, in turn, dates back to the 1950s, marked by the pioneering work of Alan Turing and the famous Dartmouth College conference in 1956, in which the term artificial intelligence was coined (Minsky, McCarthy, 1956).

Although AI has been present in different aspects of contemporary life for some time, it became part of everyday life more evidently from November 2022, with the launch of ChatGPT, which democratized access to so-called generative AI. ChatGPT is a natural language processing tool, developed by OpenAI, based on a neural network trained with millions of texts from the internet, allowing it to generate texts autonomously (OpenAI, 2022). Since then, a flood of new AI tools has emerged, bringing innovations and expanding possibilities in different contexts, including education.

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In the specific case of DE — a modality that presupposes didactic-pedagogical mediation in teaching and learning processes occurs with the use of information and communication technologies and media, and thus, even in different places and times, teachers and students continue to develop educational activities (Brasil, 2017) — the use of AI deserves specific reflections. How can AI be integrated into teaching and learning processes mediated by technologies? In what ways are students using these tools to study? In this sense, it is fundamental to analyze how students are using AI in their academic routine and how this use is influencing their learning and academic performance (Arruda, 2024).

Given the timeliness, complexity, and relevance of the topic, the objective of this article is to conduct a literature review on the use of Artificial Intelligence in Distance Education, presenting reflections and a proposal on the integration of this technology into pedagogical practice. The review, which considered six scientific articles, was the starting point for discussing the topic. This discussion was expanded with a proposal aimed at qualifying the use of AI in favor of quality, more inclusive, and democratic DE.

To meet the proposed objective, this article is structured as follows: it begins with this introductory section, followed by a theoretical foundation that addresses DE and AI, and the connections between them. Next, the methodology is presented, which includes both the search process and a pedagogical proposal. The results and discussion bring the analysis of the information obtained, and finally, final considerations and bibliographic references are presented.

2 THEORETICAL UNDERSTANDINGS

The scenario of higher education in Brazil has undergone significant transformations in recent decades, with the expansion of DE being one of the most notable and impactful phenomena. The significant growth of this modality has reconfigured access, supply, and the student profile, becoming a central point of analysis for understanding contemporary educational dynamics in the country. The numbers demonstrate the significant evolution of the teaching modality that allows breaking geographical and temporal barriers (Aguiar, 2024).

Recent data from the Higher Education Census, released by the National Institute of Educational Studies and Research Anísio Teixeira (INEP), provides concrete evidence of this paradigmatic change. The latest available survey (Brasil, 2023), referring to the year 2023, revealed

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a historic milestone: the total number of students enrolled in undergraduate courses in distance education reached levels practically equivalent to those of in-person modality, with 4,913,281 in DE versus 5,063,501 in in-person. This near parity in the total number of enrollments signals the consolidation of DE as a robust and widely adopted alternative by students throughout the national territory.

However, a more in-depth analysis of the data on new students in the same period reveals an even more pronounced and predictive trend for the near future. The Census pointed out that, of the total number of new students who started a higher education course that year, slightly less than 5 million students, approximately two-thirds (3,314,402), opted for distance education, while only one-third (1,679,590) entered in-person courses (Brasil, 2023). This indicator is particularly revealing, as it demonstrates a majority preference for DE among new entrants, suggesting a trajectory of continuous and accelerated growth for this modality.

A substantial part of this exponential growth can be attributed to a more flexible regulatory environment, built over recent years. Changes in legislation and regulations that govern the provision of distance courses in Brazil have provided greater autonomy to educational institutions to expand their operations, diversify course offerings, establish in-person support centers more dynamically, and adopt diverse pedagogical models. This regulatory flexibility was an important catalyst, aligning regulations with growing demands for access to higher education and the possibilities opened by digital information and communication technologies (DICT).

In support of this context of flexibility, MEC Ordinance No. 2,117, of December 6, 2019, established guidelines for offering course load in the DE modality in in-person undergraduate courses offered by Higher Education Institutions (HEIs) belonging to the Federal Education System (Brasil, 2019). According to this regulation, HEIs can incorporate up to 40% of the total course load of in-person courses in the DE modality, provided that such inclusion is clearly outlined in the Course Pedagogical Project (CPP) and respects the pertinent National Curriculum Guidelines (NCGs). The ordinance specifies that this flexibility does not apply to Medicine courses and that all in-person activities must take place at the authorized address of the course offering.

The exponential growth of DE in recent decades, intensified by the digital transformations of contemporary society, has generated new demands and possibilities for teaching and learning processes. In this scenario, AI emerges as a disruptive technology capable of profoundly impacting educational practices. Its potential is revealed in different dimensions, such as learning

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personalization, automation of administrative tasks, and provision of real-time feedback (Santos; Santos; Santos, 2024). Such possibilities not only optimize teaching work but also favor an educational experience more adapted to the individual needs of students, contributing to engagement and permanence in the virtual learning environment.

The personalization of learning processes is configured as one of the main contributions of AI to Education and, especially, to DE, by allowing the adaptation of content, strategies, needs, and styles of each student. Through advanced algorithms and continuous analysis of educational data, it becomes possible to identify specific difficulties, individual preferences, and performance patterns, in order to adjust the pedagogical offer responsively and dynamically. This personalization process favors more efficient learning trajectories, promotes greater engagement, and contributes to overcoming obstacles that, in traditional approaches, could compromise student permanence and achievement (Cotta et al., 2024).

According to Rienties et al. (2024), generative AI has the potential to radically transform distance education to the point of reconfiguring the roles of educators and higher education institutions. In this context, universities must continuously review their policies and regulations in order to keep pace with rapid technological evolution and promote ethical and responsible use of these tools by students (Naidu; Sevnarayan, 2023). This need for constant updating reinforces the urgency of broader pedagogical and institutional reflections, which consider not only the technical aspects of AI implementation but also its social, ethical, and formative implications in the context of DE.

While AI offers numerous opportunities for DE, its implementation involves significant challenges that require careful attention. Among these is the need for teacher training, who must not only master the technologies but also understand the pedagogical implications of their use. Furthermore, it is essential to ensure resources and technological infrastructure, ensuring that teachers and students have access to the necessary devices to use them efficiently. Studies point to a significant gap in the digital competencies of teachers and students, which compromises a critical and effective integration of generative AI tools in the context of higher education institutions (Maphoto et al., 2024).

Beyond the adoption of new technologies, it is fundamental that teachers play the role of active learning mediators. The simple use of technology in the classroom does not by itself guarantee improvement in the educational process. In this sense, teachers should guide students toward conscious and productive use of AI, ensuring that they are not merely used as quick and superficial resources, but as means to deepen understanding and meaningful learning. As Rienties et al. (2024)

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argue, it is the teacher's role not only to incorporate these tools into their pedagogical practices but also to educate students on how to use them ethically and align with the principles of deep and reflective learning.

In the same sense, higher education institutions and DE providers are called upon to critically monitor the possibilities and limitations of these technologies. The adoption of technological solutions in education should not occur hastily or without careful analysis of potential impacts. More than simply adopting ready-made technologies, it is essential that institutions invest time and resources to test, evaluate, and adapt AI tools to the specific educational contexts in which they will be applied. Each institution has unique characteristics, demands, and challenges, which require a personalized and flexible approach in implementing these tools (Loroño, 2024). Continuous criticism of the use of these technologies is essential to ensure that they contribute in a positive and efficient manner to pedagogical processes.

Despite growing academic interest in the use of AI in education, research investigating the perceptions of DE students themselves regarding the benefits and limitations of these tools in their learning processes remains scarce (Rienties et al., 2024). Listening to students — the primary beneficiaries of these innovations — is fundamental, especially given the increasingly prominent role of DE and the use of AI in teaching and learning processes. Understanding how these students perceive the use of AI in their educational trajectory can offer valuable insights for improving the application of these technologies, making them more effective and aligned with their real needs and expectations.

Finally, it is fundamental to remember that, although AI can offer important benefits, such as the possibility of creating more dynamic, interactive, and personalized content, it also raises ethical and social dilemmas that cannot be ignored. As Sorte et al. (2021) highlight, the implementation of these technologies in educational environments requires critical reflection on issues such as student data privacy, information security, and the potential impact of AI on student autonomy. Ensuring the security of student data and addressing the ethical issues associated with the use of AI are fundamental responsibilities of any educational project that proposes to use these technologies.

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3 METHODOLOGY

This research is characterized as having a qualitative approach and a theoretical nature. According to Creswell (2014), qualitative research is concerned with a level of reality that cannot be quantified, as it works with the universe of understandings, perceptions, motives, aspirations, beliefs, and attitudes. Furthermore, as this is a study that seeks understandings and comprehensions without the collection of empirical data directly in the field, this investigation also falls within the field of theoretical research, whose objective is to deepen critical reflection on a given phenomenon, based on already consolidated or under-construction contributions.

The methodology of this article is organized in two stages, the first being a search for research addressing the use of AI in DE. For this search, the Portal of Journals of the Coordination for the Improvement of Higher Education Personnel (CAPES) was chosen, as it is a broad and reliable database that brings together a diversity of national and international scientific publications. This database, in particular, is one of the largest virtual libraries in the country, housing national and international content validated by researchers from around the world, chosen based on quality criteria and specificities aimed at meeting the needs of each area (Silva; Felcher; Folmer, 2024).

Chart 1: Descriptors and Boolean operators

DESCRITORES E OPERADORES		
Portuguese	English	Spanish
"Educação a distância" ou EaD e Inteligência Artificial	distance education and artificial intelligence	educación a distancia e inteligencia artificial
	distance education and AI	

Source: the authors (2025)

In this portal, descriptors combined with Boolean operators were used in three languages — Portuguese, English, and Spanish — as demonstrated in Chart 1, considering linguistic specificities to expand the number of results. Given the number of works found, two inclusion criteria were defined and, as a consequence, the exclusion of texts that did not meet them. The first inclusion criterion consisted of applying the filters available in the portal itself, in a combined manner: only scientific articles with open access, published between 2023 and 2025 (March, the date of the search), in Portuguese, English, and Spanish languages, according to the descriptors used, were selected.

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Furthermore, the filter was activated so that the texts would be peer-reviewed.

The second inclusion criterion was applied manually by the authors through reading the abstracts of the articles resulting from the initial filtering. When reading the abstract did not allow identifying adherence to the research objective — the use of AI in DE — the full text was consulted. Only articles with a direct relation to the central theme were retained for analysis, as systematized in Chart 2.

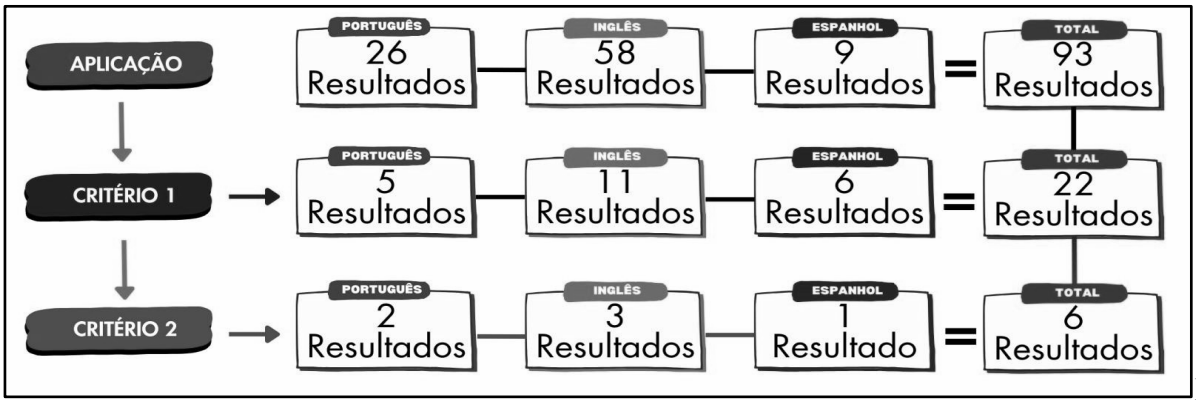
Chart 2: Descriptors and Boolean operators

INCLUSION
(01) article, open access, 2023 to 2025 (March), specific language of the descriptors, and peer-reviewed.
(02) meet the research objective, which is the use of Artificial Intelligence in Distance Education

Source: the authors (2025)

Figure 1 presents the results of applying these criteria. Initially, the search returned 93 texts, distributed as follows: 26 in Portuguese, 58 in English, and 9 in Spanish. With the application of the first inclusion criterion (portal filters), the number of texts was reduced to 5 in Portuguese, 11 in English, and 6 in Spanish, totaling 22 texts. After reading the abstracts and, when necessary, the complete articles (criterion two), 2 texts in Portuguese, 3 in English, and 1 in Spanish were selected, resulting in a total of 6 research studies.

Figure 1: Application of the criteria



Fonte: Source: the authors (2025)

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It is important to mention that, among the articles found after applying criterion 2, four articles in English proved to be pertinent to the topic. However, one of them was excluded after reading a page before the beginning of the article, available in the complete file, which presented reservations regarding data reliability. Given this, it was decided to exclude it, resulting in a total of six articles that fully meet the established criteria. Naidu and Sevnarayan (2023) point out that there are few peer-reviewed articles for reference in DE, because ChatGPT is a recent phenomenon, evidence that they relate to the small number of articles considered in this review.

Based on the selection of these six articles, the second stage of the methodology begins, which consists of analyzing the proposals and experiences regarding the uses already made of AI in DE, the problems evidenced, and future possibilities. Based on these findings, the authors propose reflections and suggestions for the use of AI in this educational context, presenting proposals and reflections on the integration of this technology in planning and pedagogical practice. The detailed results of this analysis will be presented in the next section, entitled Results and Discussion.

4 RESULTS AND DISCUSSION

Based on the criteria and selection process described in the previous section, six scientific articles were identified that comprise the corpus of this review. Chart 3, below, presents these articles, organized in four columns: the first indicates the numbering assigned to each study; the second presents the title (with its translation, when necessary) and the language in which it was published; the third provides the names of the authors, and finally, the fourth indicates the year of publication. In the sequence, each of the articles will be briefly presented, highlighting their objectives, the methodological approach adopted, and the main results identified.

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Chart 3: Article data

Nº	Author, language and year	Title, objective and methodology
01	Júlio César Parra de Almeida Português 2023	The article "Texts Generated by Artificial Intelligence and their Implications in Distance Education" aimed to present concepts of artificial intelligence, describe text-generating programs, the implications of this practice, as well as tools capable of identifying such texts. The methodology consisted of applying a questionnaire, answered by one hundred participants in Distance Education courses.
02	Uedson Chagas de Arruda Português 2024	"Contributions of artificial intelligence to the learning of Pedagogy and Administration students in a Distance Education center of a private HEI in Recife-PE" is the title of the article that aimed to identify the main AI applications used by Distance Education students and verify the contributions to learning and academic performance. Data collection was conducted through semi-structured interviews.
03	Katharine Naidu, Kershnee Sevnarayan Inglês 2023	With the title "ChatGPT: The progressive advancement of artificial intelligence in online assessments of distance education," the article aims to problematize the validity of online assessments in a Higher Education Institution. Data production was conducted through the application of forms.
04	Kgabo Bridget Maphoto *et al.* Inglês 2024	The article "Advancing academic excellence of students in distance education: exploring the potential of integrating generative AI to enhance academic writing skills" aims to explore the potential of integrating generative AI to improve academic writing skills and advance student academic excellence. Data production was conducted through interviews, a focus group, and a WhatsApp group discussion.
05	Bart Rienties *et al.* Inglês 2024	The article titled "What distance education students expect from a digital assistant with AI" aims to explore what distance education students think about a digital assistant with AI and how it can address some of their teaching, learning, and support needs. The research was developed in two stages; in the first, around 400 students answered a form, and then 10 of them participated in an interview.
06	Michael Deivi Valderrey Loroño Espanhol 2024	"Algorithmic Artificial Intelligence: an approach for university education actors" aims to generate a theoretical approach to Algorithmic Artificial Intelligence. The methodology had as its starting point a literature review and subsequently interviews with managers, facilitators, and participants of an educational program at the National Experimental University Simón Rodríguez.

Source: the authors (2025)

Based on the analysis of the six articles, it is possible to identify three main axes. The first axis, centered on production and writing, relates more directly to texts 1 and 4. The second axis addresses assistance and personalization of learning, being composed of texts 2, 5, and 6. The third axis deals with online assessment, based on Article 3. Figure 2 presents the articulation between these axes and the analyzed articles, highlighting the discussions that emerge from each thematic group and that contribute to reflections and proposals on the use of AI in Distance Education.

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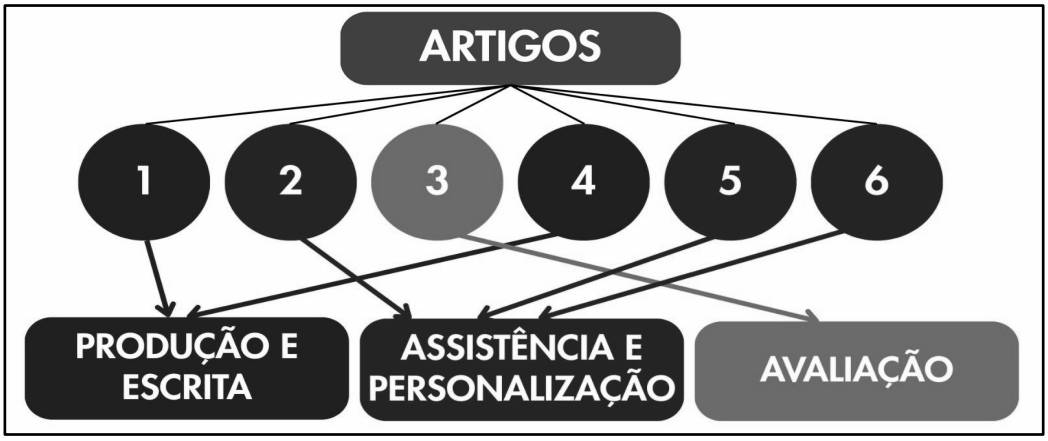
Figure 2: Articles organized by axes



Source: the authors (2025)

Texts 1 and 4, by Almeida (2023) and Maphoto et al. (2024), respectively, address, from complementary perspectives, the impacts of AI on text production, especially in Distance Education. Almeida (2023) highlights the advancement of generative technologies, such as ChatGPT, which is capable of producing texts from multiple internet sources with remarkable effectiveness. Although recognizing the benefits, the author also draws attention to the risks, such as the loss of learning opportunities, indiscriminate use of the tool, and the dissemination of false information. In the research conducted by the author, more than 70% of students admitted to submitting texts, evaluative tasks entirely produced by AI, which raises important ethical and pedagogical questions.

The study by Maphoto et al. (2024) brings perceptions from teachers and students about the use of AI in academic writing, especially at an early moment of ChatGPT's popularization. The authors emphasize that many students face writing difficulties even at the higher education level, and that AI could be an ally in this process — provided its use is guided. One of the central points of the text is the defense of conscious integration of AI as support for learning, not as a substitute for student authorship. The interviewees suggest, for example, that students write their texts, use AI for revisions, and subsequently compare versions to improve their production. In this context, the teaching role is essential, both to mediate the process and to propose evaluative strategies more coherent with this new reality.

When articulating texts 1 and 4, a highlight is the debate around AI writing detection software. Almeida (2023) mentions various tools that promise to identify whether a text was written by humans

or by AI, indicating growing concern with the authenticity of academic work. Meanwhile, the text by Maphoto et al. (2024) presents a critical analysis by highlighting software used in approximately 140 countries and 15,000 higher education institutions, but which still raises doubts about its effectiveness. This discussion is fundamental, especially given the scenario evidenced by text 1, in which there is widespread adoption and student satisfaction with AI use, while in text 4, students demonstrate more doubts and hesitations.

Studies 2, 5, and 6, by Arruda (2024), Rienties et al. (2024), and Loroño (2024), explore different facets of AI use in Distance Education, but converge on central issues such as learning personalization and virtual assistance, as well as intensive data use and the ethical dilemmas involved in this process. Arruda (2024), when investigating students of Pedagogy and Administration at a private university, reveals unanimous use of AI tools, used mainly for summaries, transcriptions, reading recommendations, deadline organization, and information improvement. Participants point out as advantages the time savings, facilitated access to knowledge, and even improvement in academic performance, indicating that AI has integrated significantly into learning routines.

The study by Rienties et al. (2024), in turn, expands this debate by questioning what Distance Education students expect from a digital assistant with AI. Beyond reinforcing the importance of personalization — especially from the so-called "Bloom's dream" — the article highlights the majority interest in continuous support, immediate feedback, and assistance in academic activities. A singular point of this study is the discussion about emotional and social support offered by digital assistants, an issue that divided opinions among participants and revealed concerns about the artificialization of subjective aspects of the educational experience. While students recognize the potential of AI, fears emerge regarding algorithmic labeling, excessive use, and the homogenization of educational trajectories.

These concerns are highlighted in Loroño's (2024) article, which addresses the transformation of universities through AI use, with emphasis on algorithms and the need to balance innovation with fundamental values of teaching. For the author, the integration of intelligent tools should enhance human development, respecting the singularities of subjects and avoiding the replacement of human capacities with automated systems. There is, therefore, a clear defense that AI should be used as a means to improve the educational experience, not as an end in itself.

In dialogue with the other texts, Loroño (2024) also emphasizes the risks of data-based personalization, especially when it compromises student autonomy or reinforces pre-established

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patterns through algorithms. This tension between AI's promises and its ethical challenges appears transversally across the three studies. While Arruda (2024) and Rienties et al. (2024) demonstrate student enthusiasm with the practical benefits of AI — such as immediate feedback and individualized support — all authors warn of the limits of this technology, pointing to the need for careful pedagogical decisions that consider both the potential and the risks involved in its adoption in distance education contexts.

Text 3, by Naidu and Sevnarayan (2023), although it is the only one that specifically addresses the assessment theme, dialogues with discussions present in other analyzed works. It starts from the recognition of the limitations of assessment conducted exclusively by humans, highlighting issues such as limited availability of evaluators, the possibility of errors, and the high costs involved. In this sense, it argues that AI can contribute to making assessment processes more efficient and accessible. Although it brings this focus on efficiency and cost, the text also points to broader implications, such as possible impacts on the employability of human evaluators. Furthermore, it highlights ChatGPT's high performance in English proficiency assessments, MBA exams, and medical exams, which reinforces concerns about the reliability of assessments conducted in online environments without in-person supervision.

In this context, text 3 presents a dual view on the use of AI in assessment. On one hand, there is the fear related to academic dishonesty, plagiarism, and the weakening of traditional assessment processes; on the other, the potential of AI to enrich students' educational experience is emphasized. For example, ChatGPT's reduced response time could allow students to make better use of study time, deepening engagement in other formative activities. Although the text is centered on ChatGPT, its reflections are expandable to AI use more generally. As in the other analyzed texts, the need for ethical, balanced, and learning-oriented use is highlighted, which demonstrates a common concern in ensuring that digital technologies, especially AI, are used responsibly in the educational context.

Although the analyzed articles have been organized into three thematic axes, it is possible to identify transversal articulations that reveal new dimensions of the discussion. A significant example is the report of a student mentioned in Arruda's (2024) article, who states that he began producing more precise and higher-quality work after starting to use artificial intelligence, which resulted in better grades. Although this study is not directly inserted into the assessment axis, it raises reflections on how AI is impacting the ways of assessing and being assessed in distance education. In this sense, Article 3 contributes to the discussion by raising an essential ethical question: are students using AI

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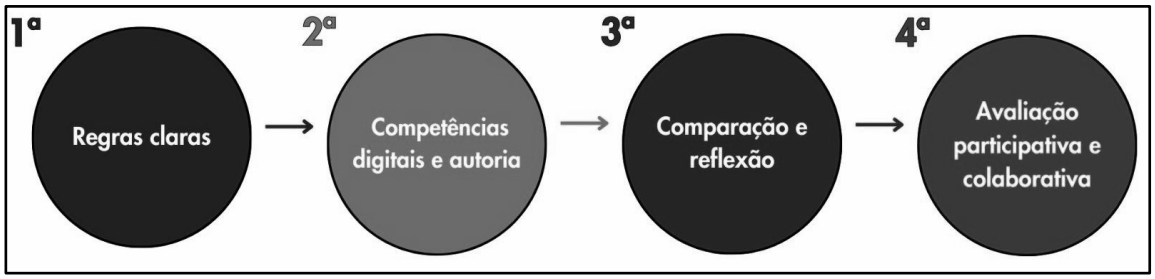
to learn or merely to obtain better grades? The ambivalence of AI — capable of meeting both the demand for meaningful learning and the desire for performance — requires rethinking assessment practices, seeking strategies that value processes and not just products.

It is necessary that students understand the potential of AI, know what is permitted, and recognize its limits, avoiding automatic and unreflective use. At the same time, it is fundamental to create formative spaces for teachers and students to explore together the resources of AI as support for authorship, criticism, and creativity. From the articulation among the six texts, it becomes evident the importance of proposing a pedagogical use of AI based on four pillars: the establishment of clear rules, the development of digital competencies and authorship, comparison and reflection, and collaborative and participatory assessment (Figure 3), which are described in the sequence.

Figure 3: Stages of the AI use proposal



Source: the authors (2025)

1. Clear rules: In a dialogical presentation (synchronous moment), discuss what AI is, what it can do, and what the limits of its use are in the educational context. Present examples of good and bad uses of AI, and, together with the class, develop a small "AI Ethical Use Agreement" in the discipline. This can be done on a collaborative Padlet, for example. At this stage, it is important to know and consider documents developed and/or considered by the Institution on this topic, if any exist.

2. Digital competencies and authorship: Ask students to write a short text on a study topic in the discipline (it can be an opinion article, a review, or an essay) without using AI. Then, propose that they consult a tool (such as ChatGPT) to review, expand, or rewrite sections of their own text. The important thing here is that they use AI actively and critically, not to write for them, but with them. Fundamentally, students present different versions of what was produced by AI.

3. Comparison and reflection: Ask students to compare the original version with the version modified with AI assistance, highlighting what was maintained, what changed, and why. They can do

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this in the form of a short reflective report or an explanatory video. Evaluate the process, the quality of reflection, the justification of choices, and respect for the ethical rules agreed upon at the beginning. Fundamentally, students present different versions of what was produced by AI.

4. Participatory and collaborative assessment: Conclude with a collective activity where students share their perceptions about the use of AI in this proposal. What did they learn? What would they do differently? At this stage, the teacher can also provide feedback on the process, considering that they have already had access to what was produced by the students.

The pedagogical proposal presented can itself function as an assessment instrument. It is an adaptable proposal that can be applied to different themes and disciplines, and that does not need to be limited to text production. It can involve, for example, problem-solving, creation of audiovisual content, or other forms of expression and knowledge construction. This flexibility allows the teacher to evaluate not only the final product but the entire learning process, encouraging ethical and qualified use of AI tools. This proposal aligns with the perspective of change in assessment instruments beyond simple submission, valuing reflection, process, and interaction with technology.

In this sense, it is important to highlight that the use of AI tools in the educational context does not necessarily imply academic misconduct or plagiarism (Naidu; Sevnarayan, 2023). As the authors point out, responsibility lies in how these tools are used: their use must be transparent and appropriately communicated. The proposal presented collaborates with this perspective by integrating AI as part of the learning process and not as its substitute. Just as resources like Google or YouTube were already used to expand understanding of content, AI can be an ally in knowledge construction, provided it is used with intentionality and criticality.

In this perspective of intentional and critical use of technologies, participants in the research by Oliveira, Lopes, and Felcher (2024) point out that AI can positively impact learning, especially by acting as an ally in knowledge construction and in optimizing repetitive tasks. However, they emphasize that benefits depend on qualified use of the tool, mastery of prompts, and understanding of its limitations. Similar concerns appear in the research by Rienties et al. (2024), whose participants — Distance Education students — highlight the ethical and social impacts of AI and reinforce that its presence in education should enhance teaching experiences without replacing human interaction, seen as essential in the formative process.

Finally, the proposal contributes to the development of student autonomy and reflection. As Loroño (2024) emphasizes, it is essential to implement AI in an ethical and responsible manner so

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that it can improve human capacities and not replace them. Furthermore, when AI is integrated consciously and in a guided manner, as in this proposal, it contributes not only to knowledge construction but also to academic integrity. By making its use clear and contextualized, dishonest practices are avoided, and a culture of ethical and formative use of technology in the educational environment is reinforced.

5 FINAL CONSIDERATIONS

Upon returning to the objective of this study, it was possible to identify that higher education students in Distance Education already use AI, albeit at different levels, as indicated by the analyzed studies. Regarding student satisfaction, varied results were also observed. Despite these differences, the potential of AI for personalizing the learning process stands out recurrently in the literature, acting as individualized support and promoting greater student autonomy. However, the studies also converge on a central concern: the use of AI in an insufficiently qualified manner, without pedagogical monitoring or critical reflection.

Given the growing presence of AI in the daily lives of Distance Education students, it becomes necessary to rethink its integration into formative processes. In light of this, this study proposed a pedagogical proposal structured in four stages — definition of rules, development of digital competencies and authorship, comparison and reflection, and collaborative assessment — with potential to be incorporated as an assessment activity. This proposal is flexible and adaptable to different areas of knowledge, offering a path for students to develop more conscious and critical use of AI. The intention is not to prevent use, but to promote practices that lead to the development of digital competencies, understanding assessment not as an end, but as a learning process.

As a limitation of this study, the reduced number of articles analyzed is acknowledged, which stems, in part, from the timeliness of the topic and the scarcity of consolidated empirical research on AI in Distance Education. Nevertheless, the data gathered offer important clues about current practices and emerging challenges. Thus, the need to expand studies on the topic is reinforced, especially those involving listening to higher education students and teachers, to deepen understanding of the impacts of AI on academic training and to foster proposals that combine technological innovation and pedagogical commitment.

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