2026, Cilt 3, Sayı 4, 302-307

OPEN ACCESS
ISSN: 3062-262X

Akademik Eğitim ve Sosyal Bilimler Dergisi
(AJESS Journal)

Towards a Humanistic Pedagogy of Artificial Intelligence: Preserving the Educational Relationship in a Technological Environment

Dr. Kameli Ibtissem, University of Constantine 2-Abdelhamid Mehri, LPPE: Algeria.
ibtissem.kameli@univ-constantine2.dz, https://orcid.org/0009-0004-6917-6247
Pr. Boulkamh Mohamed, University Abdelhamid Mehri – Constantine 2, Algeria.
mohamed.boulkamh@univ-constantine2.dz, https://orcid.org/0009-0003-0481-9865.

Article History
Received: 31/07/2026; Accepted: 10/08/2026; Published: 07/09/2026

Abstract
The rapid development of artificial intelligence is transforming educational practices and redefining the ways in which teachers and learners interact with knowledge. Artificial intelligence offers important opportunities for personalization, accessibility, feedback, and learning support. However, its increasing integration into education also raises fundamental questions concerning the human and relational dimensions of teaching and learning. This theoretical article examines the conditions under which artificial intelligence can be integrated into education without weakening the educational relationship. It argues that the main challenge is not to oppose technology and humanity, but to establish a pedagogical framework in which technology remains subordinate to educational purposes. From a humanistic perspective, artificial intelligence should support rather than replace teachers, encourage rather than reduce learner autonomy, and facilitate rather than weaken dialogue and critical thinking. The article proposes a humanistic pedagogy of artificial intelligence based on five principles: human agency, educational relationship, learner autonomy, critical thinking, and ethical responsibility. The article concludes that the future of AI in education should not be defined primarily by technological efficiency, but by its contribution to human development and meaningful educational relationships.

Keywords: artificial intelligence; humanistic pedagogy; educational relationship; learner autonomy; teacher role; human agency; critical thinking; educational technology.

1. Introduction

Artificial intelligence is becoming an increasingly important component of contemporary educational environments. Generative AI systems, intelligent tutoring platforms, adaptive learning technologies, automated feedback, and digital assistants are changing the ways in which learners access information and teachers organize educational activities.

These developments offer considerable opportunities. Artificial intelligence can provide rapid access to information, generate explanations, support individualized learning, assist with writing and problem solving, and help teachers design educational resources. For learners, it can provide additional support beyond the classroom and make certain forms of knowledge more accessible.

However, the growing presence of AI in education also raises a fundamental question: **what happens to the human dimension of education when increasingly sophisticated technologies become involved in teaching and learning?**

This question is particularly important because education is not limited to the transmission of information. Education is also a relational process through which learners develop knowledge, autonomy, identity, responsibility, critical thinking, and the ability to interact with others. The teacher does not simply provide information; the teacher guides, listens, encourages, questions, interprets, and creates conditions for meaningful learning.

Artificial intelligence can perform some of these functions at a technical level, but educational activity cannot be reduced to technical performance.

The central argument of this article is therefore that the integration of artificial intelligence requires a humanistic pedagogical perspective. Such a perspective does not reject technology. Instead, it seeks to ensure that technology remains a means of supporting educational purposes rather than becoming the purpose itself.

The main question addressed is:

How can artificial intelligence be integrated into education while preserving the human and relational dimensions of the educational process?

To answer this question, the article examines the transformation of the educational environment, the changing role of teachers and learners, and the risks associated with excessive technological mediation. It then proposes several principles for a humanistic pedagogy of artificial intelligence.

2. Artificial Intelligence and the Transformation of Education

Artificial intelligence is transforming the educational environment by changing access to knowledge and the organization of learning activities. Traditionally, teachers played a central role in transmitting knowledge, explaining concepts, correcting work, and guiding learners. Today, learners can obtain explanations, examples, summaries, translations, and feedback directly from technological systems. This shift necessitates a critical reassessment of the pedagogical landscape, as the delegation of these tasks to algorithmic systems risks decoupling knowledge acquisition from the essential human mediation that fosters deep understanding (Farida, 2025; Júnior et al., 2025).

This transformation creates new opportunities for learning. Students can receive immediate assistance, explore different explanations, and work at their own pace. Teachers can also use AI to support lesson preparation, generate educational materials, develop assessment activities, and provide differentiated learning opportunities.

Nevertheless, technological capability does not automatically produce educational value.

The fact that AI can provide an answer does not mean that the learner has understood the answer. The fact that AI can generate a text does not mean that the learner has developed the ability to construct an argument. Similarly, the availability of immediate assistance does not necessarily strengthen learner autonomy. Instead, the systematic outsourcing of cognitive tasks to algorithmic agents may erode the critical reflection required for genuine intellectual development (Bauer et al., 2025).

This distinction is essential because education is concerned not only with **the result of learning**, but also with **the development of the learner's capacity to learn independently**.

The increasing use of AI may therefore create a paradox. Technology can facilitate learning while potentially reducing the cognitive effort required for learning. It can increase access to knowledge while encouraging dependence on external assistance. It can personalize educational content while potentially reducing learners to data and performance indicators. Consequently, these systems often obscure the underlying complexities of algorithmic decision-making, which may inadvertently diminish the agency of both students and instructors (Urmeneta & Roméro, 2024, p. 47).

Consequently, the educational value of AI depends less on what the technology can technically accomplish than on **how it is integrated into pedagogical practice**.

AI should not become an alternative to education. It should become a resource within education.

3. Preserving the Educational Relationship

The educational relationship is at the heart of teaching and learning. It involves communication, trust, recognition, dialogue, encouragement, and the construction of meaning.

Artificial intelligence introduces a new form of technological mediation into this relationship. Learners can now interact directly with systems that respond to questions and provide apparently individualized assistance. This raises an important distinction between **interaction** and **relationship**. While human interaction is grounded in empathy and the mutual recognition of social dynamics, algorithmic feedback remains confined to programmed responses that lack pedagogical context (Zawacki-Richter et al., 2019, p. 21).

Interaction can occur between a learner and an AI system. A learner asks a question and receives an answer. However, an educational relationship involves more than the exchange of information. It includes recognition of the learner as a person with particular experiences, emotions, difficulties, expectations, and developmental needs.

A teacher can observe that a learner is confused, discouraged, anxious, or disengaged. The teacher can modify an explanation, encourage the learner, ask a different question, or provide emotional support. Such actions are part of the educational relationship. Conversely, reliance on automated systems may prioritize standardized output over such nuances, potentially diminishing the role of human judgment and empathy in the learning process (Pisica & Zaharia, 2025, p. 144; Seo et al., 2021, p. 70).

For this reason, the increasing use of AI should not lead to a reduction in meaningful teacher–learner interaction. On the contrary, technological innovation should ideally create more opportunities for meaningful human interaction.

If AI reduces administrative or repetitive tasks, the time gained should be reinvested in activities that require human presence: discussion, mentoring, collaborative learning, individual support, feedback, and dialogue.

The principle is therefore simple:

Artificial intelligence should strengthen the conditions for meaningful educational relationships rather than replace them.

This principle places the teacher–learner relationship at the center of technological integration.

4. The Changing Role of the Teacher

The development of artificial intelligence challenges the traditional conception of the teacher as the primary source of information. When learners can access large amounts of information independently, the teacher's role can no longer be defined primarily by information transmission.

However, this does not make teachers less important. It changes their role.

The teacher increasingly becomes a **pedagogical and human mediator**.

The teacher helps learners interpret information, evaluate different perspectives, identify errors, formulate questions, connect knowledge to real situations, and develop critical judgment. Furthermore, educators are tasked with orchestrating the learning process, effectively leveraging these tools to foster analytical discussions and hands-on experiences that mere information delivery cannot provide (Çelik et al., 2022, p. 617; Huong, 2024, p. 104).

AI can generate information, but teachers provide educational meaning.

AI can offer possible answers, but teachers help learners understand why an answer may be relevant, incomplete, or inappropriate.

AI can personalize certain learning materials, but teachers understand the learner within a broader social, emotional, and educational context.

The teacher therefore remains responsible for pedagogical decisions.

A humanistic approach requires that technological tools be selected according to educational purposes rather than allowing technological possibilities to determine educational objectives. Furthermore, this human-in-the-loop approach necessitates that educators act as coordinators who supervise AI-driven processes to ensure that students remain engaged in deep, critical thinking rather than passive consumption (Fuchs & Aguilos, 2023, p. 1369).

The appropriate sequence is:

Educational purpose → pedagogical decision → technological support.

Not:

Technological possibility → technological adoption → pedagogical adaptation.

This distinction protects teacher agency and professional judgment.

The future teacher is therefore not necessarily a teacher who uses more technology, but a teacher who knows when technology is pedagogically useful and when human interaction must remain central.

5. The Learner: From Technology User to Autonomous Subject

Artificial intelligence also transforms the position of the learner.

The learner can now use AI to obtain information, generate ideas, solve problems, produce texts, or receive explanations. These possibilities can support learning, but they can also encourage cognitive dependence.

The fundamental educational objective should therefore be to develop learners who can use AI critically and autonomously.

Autonomy does not mean learning without assistance. Learners have always depended on teachers, books, peers, and educational resources. Autonomy means being able to make informed decisions about when and how assistance should be used. This involves developing the AI literacy skills necessary to navigate human-machine collaboration while discerning the limitations of automated outputs (Bower et al., 2024, p. 5).

An autonomous learner should be able to ask:

- Why do I need AI for this task?
- What should I do myself?
- How can I verify the information generated?
- What are the limitations of the response?
- Can I explain the answer independently?
- What have I actually learned from using AI?

These questions transform AI use from passive consumption into reflective learning.

The distinction between **assistance** and **substitution** is therefore fundamental.

AI can assist the learner by providing an explanation or suggesting alternative perspectives. However, when the learner delegates the entire cognitive process to the system, the educational value of the activity may be reduced.

The objective is consequently not to eliminate AI assistance, but to ensure that assistance contributes to the development of learner autonomy.

6. Critical Thinking in an AI-Mediated Educational Environment

The expansion of artificial intelligence makes critical thinking more important, not less.

AI systems can produce fluent and convincing responses, but fluency does not necessarily guarantee accuracy, relevance, or appropriateness. Learners therefore need to develop the capacity to question information, identify assumptions, compare perspectives, verify evidence, and recognize limitations.

This changes the meaning of digital competence.

Knowing how to use AI is insufficient. Learners must also know how to question AI.

Educational activities can therefore transform AI-generated content into an object of critical inquiry. Instead of simply accepting an AI-generated answer, learners can compare it with their own reasoning, identify possible weaknesses, verify claims, and propose alternative interpretations. This iterative process forces students to move beyond passive

consumption, fostering the cognitive skills of analysis and evaluation necessary to navigate an landscape increasingly saturated with automated content (Zhai et al., 2024, p. 27).

In this approach, AI becomes not the final authority but a **resource for intellectual inquiry**.

The educational objective is consequently not simply to teach learners how to obtain answers more efficiently. It is to teach them how to determine whether an answer deserves to be accepted.

This is one of the most important contributions that education can make in an AI-mediated society.

7. Towards a Humanistic Pedagogy of Artificial Intelligence

The preceding discussion suggests the need for a pedagogical framework that places human beings at the center of AI integration.

A humanistic pedagogy of artificial intelligence can be based on five fundamental principles.

7.1 Human Agency

Teachers and learners must remain the primary decision-makers in the educational process. AI can support decisions, but it should not determine educational purposes or replace human judgment.

7.2 The Educational Relationship

Technology should not eliminate dialogue, trust, recognition, empathy, and interpersonal interaction. The teacher–learner relationship must remain a central component of education.

7.3 Learner Autonomy

AI should help learners become more capable of acting independently rather than making them increasingly dependent on technological assistance.

7.4 Critical Thinking

Learners must be encouraged to question, verify, compare, interpret, and evaluate AI-generated information rather than accepting it automatically.

7.5 Ethical Responsibility

The use of AI requires responsibility from teachers, learners, and institutions. Questions concerning privacy, fairness, transparency, responsibility, and appropriate use must remain part of educational reflection.

These five principles can be summarized in the following conceptual sequence:

Artificial Intelligence
↓
Pedagogical Mediation
↓
Educational Relationship
↓
Learner Agency and Autonomy
↓
Critical and Ethical Engagement
↓
Human Development

This model places AI within the educational process without allowing it to become the center of that process.

The ultimate objective is not to create learners who are simply efficient users of artificial intelligence. It is to develop individuals who can use technological resources intelligently while retaining the capacity to think, decide, communicate, create, and act responsibly.

8. Discussion

The integration of artificial intelligence into education should therefore be understood as a pedagogical and human question rather than merely a technological one. This entails transitioning from a model of automated substitution toward a co-evolutionary framework where human and machine intelligences operate in concert (Jose et al., 2025, p. 3).

The major challenge is not whether AI can perform tasks traditionally associated with teachers or learners. In many cases, it clearly can. The more important question concerns whether delegating these tasks contributes to or undermines educational development.

This requires distinguishing between technological efficiency and educational quality.

A technologically efficient system may provide rapid answers, automated feedback, and personalized content. Yet educational quality also depends on factors that cannot be reduced to efficiency: meaningful relationships, learner agency, critical thinking, emotional support, ethical development, and the construction of meaning. Consequently, institutions must establish robust frameworks that prioritize human oversight to ensure that these intangible pedagogical values remain safeguarded amidst technological advancement (Nagaraj et al., 2023, p. 12).

From this perspective, the success of AI in education should not be measured exclusively by productivity or performance indicators.

A broader question should be asked:

Does the use of artificial intelligence help learners become more autonomous, critical, responsible, and capable of meaningful relationships?

If the answer is yes, AI can become a valuable component of human-centered education.

If the answer is no, technological innovation may be increasing efficiency while weakening the deeper purposes of education.

A humanistic pedagogy therefore does not advocate less technology by principle. It advocates **more intentional technology**.

It recognizes that some educational functions can appropriately be supported or partially automated. At the same time, it insists that certain dimensions of education should remain strongly human: dialogue, recognition, ethical judgment, emotional support, relational presence, and responsibility. By centering these interpersonal dynamics, educational systems can foster a symbiotic relationship where technology amplifies human potential rather than reducing learners to passive recipients of automated output (Chan & Colloton, 2024, p. 110; Kim et al., 2024, p. 1284).

The challenge is thus to establish a balance between technological assistance and human presence.

The future of education should not be conceived as a competition between teachers and machines. It should be conceived as a process of determining how technological capabilities can be integrated into educational environments while preserving the human purposes of education. This requires an ongoing commitment to educational philosophy that refuses to reduce learning outcomes to mere technical metrics or algorithmic outputs (Bouakaz & Khalid, 2025, p. 4; Guilherme, 2017, p. 53).

9. Conclusion

Artificial intelligence is transforming education by changing access to knowledge, learning practices, pedagogical resources, and interactions within educational environments. These transformations offer important opportunities, but they also create significant challenges concerning autonomy, cognitive engagement, teacher agency, and the educational relationship.

This article has argued that the central challenge is not to choose between technology and humanity. Rather, it is to establish the conditions under which technology can remain genuinely at the service of education.

A humanistic pedagogy of artificial intelligence places the human being at the center of technological integration. It considers AI a support for learning rather than a substitute for teachers or learners. It emphasizes the importance of educational relationships, learner autonomy, critical thinking, ethical responsibility, and human agency.

The teacher remains essential not because teachers are the only source of knowledge, but because education requires mediation, interpretation, dialogue, recognition, and human judgment. Similarly, the learner should not become a passive consumer of AI-generated content, but an autonomous subject capable of questioning, evaluating, and responsibly using technological resources.

The fundamental principle can therefore be stated clearly:

Artificial intelligence should augment educational possibilities without replacing the human relationships through which education acquires its meaning.

The future of AI in education should consequently not be defined by the question of how much technology can be introduced into classrooms, but by a more fundamental question: what kind of human beings do we want education to help develop in an increasingly technological world?

A humanistic pedagogy of artificial intelligence provides one possible answer. It calls for an education in which technology is powerful but not dominant, intelligent but not autonomous from human purposes, and innovative without abandoning the relational foundations of education.

Ultimately, the challenge is not to humanize artificial intelligence itself, but to ensure that education remains human in an age of artificial intelligence.

References

Bauer, E., Greiff, S., Graesser, A. C., Scheiter, K., & Sailer, M. (2025). Looking Beyond the Hype: Understanding the Effects of AI on Learning. *Educational Psychology Review*, *37*(2). https://doi.org/10.1007/s10648-025-10020-8

Bouakaz, L., & Khalid, S. (2025). AI in education: a sociological exploration of technology in learning environments. *Frontiers in Education*, *10*. https://doi.org/10.3389/feduc.2025.1700876

Bower, M., Torrington, J., Lai, J. W. M., Petocz, P., & Alfano, M. (2024). How should we change teaching and assessment in response to increasingly powerful generative Artificial Intelligence? Outcomes of the ChatGPT teacher survey. *Education and Information Technologies*. https://doi.org/10.1007/s10639-023-12405-0

Çelik, İ., Dindar, M., Muukkonen, H., & Järvelä, S. (2022). The Promises and Challenges of Artificial Intelligence for Teachers: a Systematic Review of Research. *TechTrends*, *66*(4), 616–630. https://doi.org/10.1007/s11528-022-00715-y

Chan, C. K. Y., & Colloton, T. (2024). *Generative AI in Higher Education*. https://doi.org/10.4324/9781003459026

Farida, I. (2025). Being a Teacher in the Age of AI: Between Technology, Values, and the Humanisation of Education. *Journal of Islamic Studies and Civilization*, *3*(2), 137–168. https://doi.org/10.61680/jisc.v3i2.47

Fuchs, K., & Aguilos, V. (2023). Integrating Artificial Intelligence in Higher Education: Empirical Insights from Students about Using ChatGPT. *International Journal of Information and Education Technology*, *13*(9), 1365–1371. https://doi.org/10.18178/ijiet.2023.13.9.1939

Guilherme, A. A. (2017). AI and education: the importance of teacher and student relations. *AI & Society*, *34*(1), 47–54. https://doi.org/10.1007/s00146-017-0693-8

Huong, X. V. (2024). THE IMPLICATIONS OF ARTIFICIAL INTELLIGENCE FOR EDUCATIONAL SYSTEMS: CHALLENGES, OPPORTUNITIES, AND TRANSFORMATIVE POTENTIAL. *The American Journal of Social Science and Education Innovations*, *6*(3), 101–111. https://doi.org/10.37547/tajssei/volume06issue03-17

Jose, B., Verghis, A. M., Varghese, S., Mumthas, S., & Cherian, J. (2025). From tools to co-learners: entangled humanism and the co-evolution of intelligence in AI education. *Frontiers in Education*, *10*. https://doi.org/10.3389/feduc.2025.1632990

Júnior, J. F. C., Santos, I. B. dos, Rodrigues, M. B., Soares, G. de A., Nascimento, C. O. S. do, Ruas, G. C. R., Machado, L. M. M. de A., Arcanjo, C. F., Souza, A. F. D., Santos, M. M. de O., Freire, A. I., Santos, M. W. dos, Godinho, C. E. R., & Amorim, L. M. (2025). EDUCATION IN THE ERA OF ARTIFICIAL INTELLIGENCE: BETWEEN INNOVATION AND THE DEHUMANIZATION OF EDUCATION. In *Seven Editora eBooks*. https://doi.org/10.56238/sevened2025.026-016

Kim, J., Yu, S., Detrick, R., & Li, N. (2024). Exploring students' perspectives on Generative AI-assisted academic writing. *Education and Information Technologies*, *30*(1), 1265–1300. https://doi.org/10.1007/s10639-024-12878-7

Nagaraj, B., Kalaivani, A., R, S. B., Akila, S., Sachdev, H. K., & Kumar, N. K. S. (2023). The Emerging Role of Artificial Intelligence in STEM Higher Education: A Critical Review. *International Research Journal of Multidisciplinary Technovation*, 1–19. https://doi.org/10.54392/irjmt2351

Pisica, A. I., & Zaharia, R. (2025). What Artificial Intelligence Means to Us – Students' Insights. *European Journal of Interdisciplinary Studies*, *17*(1), 142–152. https://doi.org/10.24818/ejis.2025.09

Seo, K., Tang, J., Roll, I., Fels, S., & Yoon, D. (2021). The impact of artificial intelligence on learner–instructor interaction in online learning. *International Journal of Educational Technology in Higher Education*, *18*(1), 54. https://doi.org/10.1186/s41239-021-00292-9

Urmeneta, A., & Roméro, M. (2024). Creative Applications of Artificial Intelligence in Education. In *Palgrave studies in creativity and culture*. https://doi.org/10.1007/978-3-031-55272-4

Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? *International Journal of Educational Technology in Higher Education*, *16*(1). https://doi.org/10.1186/s41239-019-0171-0

Zhai, C., Wibowo, S., & Li, L. D. (2024). The effects of over-reliance on AI dialogue systems on students' cognitive abilities: a systematic review. *Smart Learning Environments*, *11*(1). https://doi.org/10.1186/s40561-024-00316-7