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Volume 19 (2026), pp. 201-218
American Journal of STEM Education: Issues and Perspectives
eISSN 30.3-1190| Print ISSN: 3069-0072
Star Scholars Press
https://doi.org/10.32674/m8aa5648

Towards a New Education through AI: Didactic Study of an Intelligent Platform

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ABSTRACT

In this study, we examine the impact of artificial intelligence on the teaching process–learning through an empirical investigation of a smart platform developed by university students as part of a project designed to support all learners, including those with autism. To identify the characteristics of this new form of so-called smart education, six semi-structured interviews were conducted with engineering students who created the integrated AI platform. The designers highlighted the benefits of personalized, automated education tailored to individual needs. This approach paves the way for an educational system in which technology helps to maintain motivation while redefining teacher roles. Finally, we present the results and highlight both the limitations of AI and those of the study itself.

Keywords: Artificial intelligence, new smart education, platform, skills, teacher.

INTRODUCTION

Currently, Education 4.0 marks a new direction in the teaching-learning process, where « *technological power imposes its rhythm, logic and dynamics* » (Goulet, 2018, p. 231). The present study examines the influence of intelligent tools on educational practices. To this end, we analyzed the characteristics of a platform developed by final-year engineering students specializing in Artificial Intelligence. These features were identified through a discursive analysis of the designers' feedback, ensuring the authenticity and reflexivity of the study. Emerging from university research, the project has become a noteworthy accomplishment, implemented at an educational center serving learners with autism spectrum disorders, thereby providing a concrete framework for evaluating the impact of intelligent tools on teaching practices. The objective of this research is to highlight the characteristics and benefits of this innovative approach, while also examining the role of teachers in the era of AI integration in education. These issues particularly resonate in STEM education, which focuses its research and work on analyzing the link between educational innovation and its effects on learners. This orientation aims to encourage designers to anticipate future challenges by mobilizing appropriate pedagogical and technological approaches.

LITERATURE REVIEW

Based on scientific literature, the origins of artificial intelligence appear closely linked to advances in cognitive science (Vion Dury, 2024). AI derives its strength from understanding human mental processes and seeks to reproduce their effects within information systems. Its fundamental objective remains the creation of machines capable of intelligent behavior; learning, reasoning, problem-solving, perception, and creativity, as highlighted by Rainer et al. (2016). According to Zouiner (2020), *« the term AI refers to machines, algorithms, or programs inspired by, or attempting to replicate, human faculties*». This overview of the influence of research on human intelligence in the development of AI (Markauskaite et al., 2022) shows that, in the field of education, the transposition of cognitive modes of functioning to machines now aims to strengthen learners' skills (Garzón, Patiño, & Marulanda, 2025). Neuroscience and cognitive science have shed light on neural and cognitive functioning (Nadji Tehrani & Eslami, 2020), which is reproduced in artificial systems.

The reference to the origins of AI is not insignificant: by highlighting the relationship between neural mechanisms and human cognitive processes, it raises a central question: how can the transposition of these mechanisms into artificial systems transform learning? This historical and theoretical framework suggests that AI is not limited to imitating isolated functions; rather, it establishes feedback loops between machines and learners, simultaneously reshaping teaching methods

and the skills developed by students. Despite its emerging nature, this field has already produced concrete advances through machine learning (Rainer et al., 2016), intelligent tutoring, and adaptive learning, demonstrating positive effects on the progression of learners' skills (Chiu et al., 2023). AI provides a wide range of resources capable of generating activities, materials, exercises, and courses, thereby offering valuable support to teachers (Kohnke et al., 2023).

The vast potential of artificial intelligence has led us to study its functioning and its effects on learners' skills in concrete terms through an intelligent platform created by Tunisian students, future AI engineers. By drawing on a theoretical framework combining cognitive, connectivist, and socio-cognitive foundations, we aim to demonstrate the effects of intelligent systems on skills development, determine the approximate contours of new teaching methods and new teacher roles, as we articulate them directly in relation to technical innovation tested in the field. The subject of this research, which has been little explored to date, evaluates the integration of intelligent tools developed by student engineers and measures their real impact on skills development. This rare empirical work sets out to study an internationally award-winning intelligent platform.

RESEARCH METHOD

We conducted a survey at a private university in Tunisia among a group of future AI engineers, 34 of whom had completed internships at global companies involved in AI in various fields. From these 34 university students, we selected a group of six. The only selection criterion was that these students were working on AI in education and had created an internationally recognized educational platform. We conducted six semi-structured interviews with the designers of the Cognipath platform, which is designed to facilitate learning for students with learning difficulties (including those with autism spectrum disorder). This internationally successful project has won three international awards to date: *the Google Cloud Gemini Hackathon, the Addis Ababa Award (A2SV Hackathon for Africa), and the Honoris Impact Competition.* These distinctions are further reinforced by the project's usefulness in a Tunisian school center teaching autistic learners. The participants in the semi-structured interviews were four men and two women, with an average age between 23 and 25. They are in their fifth year of AI engineering (a new discipline taught at a private international engineering school in Tunisia, which is training its second class of AI engineers), coded I1, I2, I3, I4, I5, and I6. The questionnaire consisted of 18 open-ended questions about personal experiences, motivations, and perspectives related to the development of the platform (stages, implementation, evaluation). It also explored the impact, benefits, and limitations of smart systems, as well as the role of teachers. The responses were analyzed using the thematic method developed by Mucchielli and Paillé (2021), which consists of grouping recurring and significant themes. The

continuous thematization approach made it possible to assign themes, merge them, and rank them according to their importance and frequency, then subdivide them into sub-themes for in-depth analysis. This study aims not only to present Cognipath, an educational platform that has proven its pedagogical effectiveness, but also to explore the characteristics of *Smart Education* and the evolving role of teachers. You can see details here (https://devpost.com/software/cognipath).

RESULTS

University Innovation: The Student Intelligent Platform

The CogniPath educational platform was designed by engineering students specializing in artificial intelligence as part of a university project aimed at helping students with autism. The students interviewed (I2, I4, I5, and I6) explain that their university education, which focused on mastering technical aspects such as neural networks, predictive model building, and chatbot development, formed the basis for this project. They applied these skills to a socio-educational purpose. However, I1 points out that « *the academic teaching received does not cover the basic concepts of educational design* ». As reported by I5, this encouraged them to « *make an extra effort in self-training and research*». Several steps were taken to bring the idea to fruition: the students visited the education center for autistic students to determine their needs and identify the shortcomings of traditional teaching methods based on the analysis of the statements of 80% of participants. They also interviewed the students' guardians and parents to gain an understanding of the specific needs of this population.

Thus, according to this experience, intelligent education is based on and rooted in the reality of the field. It also attests to the power of university teaching and the creative autonomy of students, who are capable of transforming their knowledge into an innovative platform. It has also revealed the characteristics of intelligent education based on the reality of the field and the immediate needs of the students. This is all the more important given that autistic students present unique situations, each with specific needs and skills to develop (I3). They generally encounter difficulties related to recognizing emotions, social interaction, and behavior (I4). To address these challenges, the platform was built on a robust infrastructure (Flask, Firebase), integrating AI tools (Gemini API, Vertex AI) and offering global accessibility via the cloud.

Cognipath offers an interactive experience thanks to innovative tools. According to I1, Storyfy transforms drawings into personalized stories, while Expressify generates real-time dialogues with animated avatars. In practice, the platform allows learners to prepare their lessons by drawing or writing a text, even in their dialect. This content is then converted into a story « *enriched by Vertex AI, illustrated with images produced via Imagen 3* » (I4) and accompanied by « *immersive audio narration thanks to Google Cloud's speech synthesis*, » according

to the same participant I4. Artificial intelligence thus becomes a powerful educational tool. It promotes learning and skills development (I2, I4, I5) and gives priority to the learner in choosing their knowledge, which until now has been the preserve of program designers and decision-makers (I2, I3, I5). This platform mode of operation guarantees learner motivation and engagement, which are reinforced by the intelligent 3D avatar, capable of recognizing emotions through facial expressions and intonation (I5). This immersive and user-friendly environment promotes self-confidence and encourages autonomy, making learning more engaging and personalized.

Finally, this section briefly outlines the contours of smart education through a platform created by the ingenuity of students who are future artificial intelligence engineers. However, this experience has also demonstrated that university training for AI engineers remains insufficient. Beyond the technical skills taught, it is necessary to return to the field and the concrete needs of learners. Theoretical training through the acquisition of technical concepts must be supported by training in teaching methods. This is the case for the designers of *Cognitpath*, which has won three prestigious international awards. This success demonstrates that a university education that offers the freedom to experiment, integrate multimodal technologies, and innovate has an impact on social transformation. Support for students is another focus of smart education.

New smart tools: towards a new approach to education

Survey participants highlighted several differences between traditional methods and the new AI-based approach. As reported by I4, the advantages of the smart platform « *lie in its personalization and adaptability, thanks to AI that adjusts activities and content to the specific needs of each child* ». This approach differs from the traditional method, both in its objectives and in its general nature, which aims to develop collective skills. According to I4, in traditional schools, 70% of students do not develop the targeted skills due to the heterogeneity of levels within the same class. However, with the assistance of intelligent systems, integrated algorithmic programs, fostering problem-solving and skill development, and relying on data analysis and evaluation, thereby enable effective prediction. In this sense, the exercises proposed — intended for remediation in some cases and for the development of specific skills in others — are designed on the basis of a precise assessment of needs. Each learner progresses at their own pace. According to I1, personalized skill progression is an advantage made possible by AI: «wh*ich can personalize language learning, provide real-time feedback, and offer exercises tailored to the student's level* » as well as to the specific needs of each user. Conversely, in a traditional classroom, the teacher cannot respond to the needs of each student and must follow the official curriculum on the authority of instructions. In addition, as observed by I1, the traditional method is *« a generic, teacher-dependent approach,* » while the new method is characterized by*«*

personalization, flexibility, and interactive learning, » which, as noted by I1, « *favors AI-integrated methods because they better meet individual needs* ». Intelligent learning becomes more effective thanks to a 3D avatar designed by engineers to accompany and guide the learner in acquiring targeted skills. The designers describe the avatar they have created as exceptionally empathetic.

Thanks to intelligent systems, sensors, and algorithms capable of analyzing learners' nonverbal signals (gestures, facial expressions, smiles) in real time via the avatar, lessons are tailored to their specific needs according to I2 and I4. Conversely, the traditional method (I4), based on the classical transmission of knowledge and lectures, tends to devalue the learner by reducing them to a mere recipient, unable to develop skills autonomously. In this model, the teacher assumes full responsibility for the transmission of knowledge (I1, I2, I3, and I5). Consistent with the data collected, traditional teaching seems outdated in the face of AI innovations, particularly because of its difficulties in motivating students (I4). The lack of interaction inherent in this type of face-to-face teaching and learning is a limitation that is often criticized. Today's teachers favor games in their activities and multimedia in their teaching resources. As reported by I3, traditional teaching often relies on methods such as reading, written assignments, and exams. That is why these engineers have integrated smart tools into the platform, making learning more personalized, interactive, and adaptive. In addition, based on the data collected, this smart technology makes it possible to track each student's individual progress, tailor content to their specific needs, and provide instant feedback on their performance. On this subject, I2 states: « We have integrated intelligent AI systems into the platform's design, enabling us to offer targeted exercises to reinforce specific skills, such as reading comprehension, pronunciation, or mathematics ». Indeed, AI tools such as chatbots, gamification applications, and virtual assistants enable constant interaction and rapid, accurate monitoring of comprehension progress, as well as assessments after each lesson. This flexibility is beneficial because it promotes learner autonomy and the ability to take control of one's own learning.

Finally, it should be noted that the students chose to promote a teaching method that involves parents in their children's learning process. They enhanced the *CogniPath* platform by adding a dashboard featuring interactive graphs and activity logs, allowing users to track learners' daily, weekly, and monthly progress. Access to this dashboard is available via the link: CogniPath | Devpost.

As a result, the emerging contours of the new education system, centered on automation, personalization, big data, and entertainment, call for an overhaul of the university system. The university of tomorrow will not only have to integrate these technological dynamics, but also adapt to more specific needs related to learner diversity, changing skills, and the demands of a constantly changing society.

Towards a new status for teachers

Defining the new status of teachers in the age of artificial intelligence is a key issue. The emerging functions identified in the platform study and discourse analysis of students' responses to this question are classified according to frequency and importance as assigned by participants. 80% of respondents consider artificial intelligence to be a facilitator of the tasks required of teachers. The database offered differs from traditional resources (textbooks and Google). AI has the power to suggest solutions and generate activities, exercises, reading lists, and even lesson plans. It is a database offering a wealth of information that lightens the teaching load. Many routine, challenging, mechanical, exhausting, and tedious tasks can be delegated to machines. According to I4: « *The introduction of AI frees teachers from administrative tasks, such as grading homework or managing the classroom, allowing them to focus on human interaction, which is essential for motivating students and nurturing their curiosity* ».

By introducing smart tools and educational chatbots, teachers will save time. They will be able to complete the curriculum without having to organize remedial sessions. As reported by I3, this represents *« to reflect on their profession and cultivate strong relationships with their students a considerable time saving that will lighten teachers' workloads, finally allowing them* ». From this perspective, the role of the teacher will be that of a *« guide* » and *«facilitator*» of information for their students. Thanks to AI, they will be able to focus more on the human and interactive aspects of teaching, such as personalized support, emotional guidance, and building trusting relationships with students. According to engineers, the profile of the teacher of the future seems to be that of a thoughtful, wise, and philosophical teacher with two missions: the first is to ensure the well-being and psychological support of their students by cultivating an empathetic relationship with them. The second is to reflect on the teaching/learning process, their areas of interest, and the direction of their courses. This approach is becoming increasingly important in the current context of globalization, where the acquisition of new sociocultural, personal, and communication skills is essential for successful integration into an increasingly demanding and competitive job market, as highlighted by I3 and I6.

Therefore, training in computer skills and critical thinking is necessary to enable knowledge facilitators to keep pace with AI-driven advances in technology and education. In the near future, teachers will be, among other things, philosophers and key players in their disciplines, helping to guide training centers, schools, and universities, and offering insightful perspectives on future directions. AI will be their assistant, taking on tasks such as grading exams. I5 points out that « *entrusting exam grading to artificial intelligence is an advantage that will spare teachers from being labeled as evaluators. Evaluators are perceived as a source of apprehension. However, it is preferable to establish relationships based on empathy towards the learner* ». Furthermore, in overcrowded classrooms where it

is sometimes difficult to assess all levels, artificial intelligence helps to determine each student's level with remarkable accuracy and offers remedial solutions tailored to each student's specific difficulties.

In the age of AI, 70% of respondents believe that education, knowledge, and skills will no longer be transmitted entirely by teachers. This role will be largely taken over by machines, algorithms, platforms, and websites. Teachers will be responsible for ensuring that learners successfully acquire the targeted skills, following a logical progression and at each learner's own pace. This is particularly important because learners, whether children or teenagers, cannot progress without professional guidance. This requirement is all the more pressing given the risk of demagogic influence among teenagers exposed without supervision to dubious networks and platforms. According to engineer I3, the transmission of knowledge « *is the ethical responsibility of the teacher* ».

Finally, as reported by I2, « *the teacher remains at the heart of the educational process. AI is the compass* ». The new responsibilities of course designers require vision and foresight. However, in the absence of specific training in so-called « *smart* » education, engineers are stepping in, as evidenced by the artificial intelligence specialists who designed the *Cognipath* platform.

DISCUSSION

The analysis of the results shows that the university training of engineers, by integrating AI skills and intelligent tools, contributes to a new personalized, fun, and automated education, whose success depends on the digitization of content and the effectiveness of educational technologies.

Smart educational technologies for skills development

Generation Z, or the digital natives according to the expression of Cormerais, Le Deuff, Lakel and Pucheu (2017) are familiar from an early age with digital tools. The design of an intelligent platform meets the expectations of this generation and « *represents a learning model that takes into account the profound transformations of society, where learning is no longer an internal and individual activity [...]. Learning (defined as the acquisition of usable knowledge) can take place outside oneself (within an organization or in a database*) » (Siemens, 2005). Among the defining features of this emerging education, highlighted both by the results of the study and the scientific literature, are the integration of smart technologies (Chen, Lin, & Chien, 2022), the metaverse (Centi, 2024), and the use of augmented reality (AR) and virtual reality (VR) in learning activities and classrooms(Gwo-Jen Hwang & Shu-Yun Chien, 2022; Popenici & Kerr, 2017). A new seductive educational world, distinguishing itself from the traditional system (Nura Jabagi and Anne-Marie Croteau, 2025) by the

immersive and interactive spaces that these technologies make available to these users (Díaz et al., 2020; Rospigliosi, 2022).

The university is thus called upon to rethink, in an ad hoc manner, its spaces, practices, and objectives so as to align with contemporary expectations (Lakhal & Boumahdi, 2024). In doing so, it must also facilitate the integration of students into the evolving requirements of the new market, positioning itself as a dynamic institution capable of anticipating and responding to future societal and professional needs. These are, in the past, new skills required that educational actors and decision-makers are invited to deal with. The smart platform project developed by students illustrates the ability of higher education to meet society's educational needs. In this structured and forward-looking system, the teacher takes on a role of guidance and support, mobilising the resources integrated into intelligent systems and meeting the expectations of a connected generation.

Indeed, new educational technologies contribute to the development of students' skills (Miras, Lefevre, Arbach, Rapilly, & Dumarski, 2019). Among these are machine learning, allowing to process huge amounts of data and making very reliable predictions (Newman, Fast & Harmon, 2020), natural language processing (NLP), generating texts whose quality is comparable to that of humans, and adaptive learning, allowing skills development in record time. According to Karsenti (2018: 11), « *adaptive learning is a pedagogical technique that uses AI to organize learning according to the individual skills or needs of each learner* ».

Playfulness is also another strong point of this new education through quizzes, games, intelligent characters in immersive spaces, making learning pleasant and stimulating. However, AI implementation in traditional classrooms remains complex due to infrastructure and time constraints (Sanchez & Lama, 2008).

In addition to these characteristics, software agents that help them achieve their learning goals (Sanchez & Lama, 2008) help strengthen learner motivation and effectively overcome obstacles. Zhang and Han (2021) state that « *the robot uses attractive sound and visual effects to arouse children's interest in learning content. In addition, educational robots serve as conversational agents for linguistic conversation exercises or participate in discussions with students, thus promoting learner autonomy through personalized methods* ».

Based on these data, and in order to broaden the reflection to the academic field, it appears, as highlighted by Zawacki Richter et al. (2019), that the introduction of artificial intelligence can transform four main areas of intervention: profiling and prediction, intelligent tutoring systems, measurement and evaluation, as well as adaptive and personalization systems. This shows that the potential of AI in education is immense; the university is called to seize it to strengthen its influence, redefine its missions, and channel the multiple possibilities offered in terms of administration, training, and pedagogical innovation.

The Professor and the Robot

The status of the teacher in view of emerging data will change. Following the successful use of AI in education, notably thanks to personalization, adaptive teaching, and the responsiveness of chatbots, the role of the teacher (Celik et al., 2022) has become a topic of debate. Two questions arise: will the teacher be replaced by artificial intelligence? Otherwise, what new functions will be assigned to them?

Some researchers, such as Holmes and Tuomi (2022), believe that AI is a valuable tool to help teachers and facilitate their work while offering more personalized teaching (Sijing and Lan, 2018). Other researchers, such as Casamayor, Amandi, and Campo (2009), consider the teacher as a guide ensuring the acquisition of knowledge and a mediator making this knowledge more accessible. The teacher has a new status of reflective teacher (Alexandre, 2023) that takes into account the well-being of learners and monitors the acquisition of skills, while striving to adjust the overall approach at each step.

Reflecting on the role of the teacher in the era of intelligent education systems raises questions about the emergence of a new taxonomic model of learning, as well as methods of internal didactic transposition of knowledge, that is to say, the way in which content is presented to students according to the degree of integration of artificial intelligence.

Regarding the taxonomic model, it is important to emphasize that the revision of the six levels of learning of the Bloom Taxonomy, in light of the thoughtful introduction of intelligent tools, pushes teachers to rethink their teaching methods. In this context, Munn (2023) presented a revised taxonomic model where each level is presented in terms of the reasoned introduction of intelligent tools. According to him, teachers must be trained in the use of AI, while remaining aware of the risks and limits of these tools. He believes that the use of AI must be moderate. Excessive use of intelligent systems can hinder the development of critical thinking and reasoning. Munn (2023) specifies that « *AI can support all levels of taxonomy, but it should never replace pedagogical intention or human reflection* ». Thus, within the university context, the issue of teacher training becomes crucial. Faced with the abundance of information and resources, universities must ensure the targeted transfer of knowledge, namely, the transition from purely academic knowledge to knowledge that is transmissible and applicable in practice. According to Villani (2018), training teachers to make the most of these systems to complement their pedagogical practices represents a major challenge, especially with the inequalities identified between countries. In Africa, for example, infrastructure deficiencies and the economic crisis make it difficult to introduce AI. In these countries, the problems are related to inequalities in Internet access and teacher training in AI (Mienye, Sun, Ileberi, 2024). The urgency to implement a training program allowing students to improve their skills in order to

reduce the gap between developed and developing countries was the subject of a study conducted by Adetiba (2024).

In the era of artificial intelligence, universities are prompted to reexamine some of the fundamental concepts of didactics, reconsidering their relevance and application in light of emerging technologies and new educational paradigms. The traditional didactic triangle, composed of knowledge, the teacher, and the learner, is today being transformed into a tetrahedron with AI at the top (Lepage & Roy, 2023). This model is inspired by that proposed by Faerb (2003), who highlighted the transversal role of ICT linking the three poles. In the recent version of Lepage and Roy (2023), AI occupies a central place: it influences interactions and becomes a structuring element of educational dynamics. In this model, AI assumes key functions: defining the content to be taught, clarifying learners' expectations, organizing learning environments, and contextualizing digital practices. This role helps to lighten the workload of teachers while redefining the balance of the education system.

It should also be noted that, thanks to the intervention of AI, evaluation methods and functions are evolving. This notably involves assessing students' level of knowledge, their overall skills (Niu, 2022), and their attitude towards learning (Chen et al., 2007). Thus, AI will allow teachers to free themselves from routine tasks and focus on other dimensions inherent in the act of teaching.

Finally, the results of this study, combined with the analysis of the platform designers' verbatim comments on the new roles of teachers, are consistent with the conclusions of several research studies conducted worldwide. With this in mind, we define the emerging role of the teacher as that of an intelligent, visionary, and empathetic tutor, equipped with new skills and called upon to transform their practices thanks to the emergence of multiple tools.

The limits of AI

Although AI has spread rapidly and is generating enthusiasm among these designers in this study, it is worth briefly discussing its limitations since it has also raised concerns about its disadvantages. Firstly, as mentioned previously, the unequal access to artificial intelligence for teachers and students is a risk that must be taken into account. «*The unequal social relations underlying the marginalization and vulnerability of certain school groups* » (Collin, Lepage, and Nebel, 2023, p. 4) constitute a major factor likely to « *hinder [...] the implementation and use of AI in education, to the detriment of these same marginalized and vulnerable school groups* » (Ibid.). In this context, the university is called upon to critically address such inequalities, ensuring that the integration of AI fosters equity rather than exclusion.

Furthermore, it is essential to remember that the systematic use of intelligent tools will also decrease learners' abilities to think, criticize, and self-regulate (Parong & Mayer, 2018).

Moreover, regarding interculturality and in view of the results of the present study, cultural otherness is apprehended through a factual approach that highlights clichés shared by all. This representation remains limited because it does not allow for the consolidation of a true relationship with others. However, the intercultural is built on an approach of intercomprehension (Hmissi, 2022). Artificial intelligence, despite its potential, cannot be a substitute for the human dimension. In this perspective, the university must remain a privileged space for contact and dialogue, where students are not isolated but enriched by the diversity of exchanges. The teacher plays an essential role: that of correcting misconceptions and facilitating contact with others within an intercultural dynamic. That is why the educational process must remain fundamentally human: excessive or inappropriate use of AI would risk dehumanizing education (Alam, 2021; Anctil, 2023). Human presence in the classroom and at university is essential for transmitting noble and authentic values and ideas such as empathy, patience, and otherness.

Finally, it remains essential to specify that with the proliferation of intelligent tools, problems related to intellectual property, plagiarism, and scientific integrity have emerged. The opacity of sources and data raises serious ethical questions (King, 2023; Grassini,2023).

Certainly, smart platforms demonstrate a real ability to develop transversal skills such as communication, understanding, and expressing emotions, in a fun, interactive, and engaging approach. However, they cannot replace the human dimension in the transmission of knowledge nor the supports promoting interculturality. In this context, the university must remain a living space of encounter and dialogue, where human contact and the diversity of exchanges enrich the educational experience. It has the responsibility to preserve this human dimension, ensuring that technologies remain complements and not substitutes. This reflection echoes the remarks of Taddei (2018), who insists on the need to establish clear, transparent, and democratically validated regulations regarding the use of personal data, in order to preserve the freedom of research and the autonomy of individuals in fields as varied as sleep, nutrition, education, health, or physical activity.

CONCLUSION

In summary, through an analysis of the platform, internationally recognized and developed within university research, we mapped out the contours of intelligent education, grounded in multimodal computer systems and characterized by personalization, automation, and predictive efficiency to support decision-making. Experience also shows that the participation of AI engineers in the design of programs, platforms, as well as in the development of classrooms in immersive universes is possible. Nevertheless, the teacher will have other functions and will

be led to develop specific skills. However, it is important to clarify that this study remains limited since it is based on a single experimentation and the analysis of the discourses of the platform's designers. Consequently, the results obtained cannot be generalized or transferred to other fields, but they have the merit of illuminating several dimensions related to the introduction of AI in education. Finally, this investigation opens avenues for future research: it is necessary to question the relevance of such a platform in higher education and its effects within the university system. The question of the status of the research teacher is also acute: what skills will he have to develop to meet the requirements of a new form of emerging education? Ethics, in its relationship with AI, constitutes another dimension that the university is invited to frame by clear and shared charters.

*In the context of this article, I used two smart tools, Reverso and Copilot, to check certain sentence structures in English and to translate certain sentences.

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