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AI IN EDUCATION: TRANSFORMING THE TEACHING PROFESSION AND UNLOCKING FUTURE OPPORTUNITIES IN ALGERIA

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ABSTRACT:
As artificial intelligence (AI) is transforming numerous sectors, the world of education is not exempt from this technological revolution. AI-based assistants are now being developed to support teachers or substitute for certain aspects of their work. This incursion of cognitive technologies in the school environment raises questions about the future of the teaching profession: is the advent of AI set to completely reshuffle the cards of the profession or redefine it at the margin? Our article will first examine the existing educational applications of AI and their current strengths and limitations. Then, backed by a prospective analysis, we will consider the plausible evolutions of these tools. The aim is to provide a nuanced insight into the challenges and new opportunities that this techno-pedagogical revolution could open in order to rethink or even improve the teaching of tomorrow.

Keywords: Artificial Intelligence,AI-based assistants, Education, Technological revolution

I- INTRODUCTION:

Artificial Intelligence (AI) is becoming an essential driver of change in many sectors of our society, and the field of education is not spared from this technological revolution. In this context, we are witnessing the emergence of AI-based assistants, designed to support teachers in their work or even replace certain aspects of their tasks. The introduction of these cognitive technologies into the school environment raises profound questions about the future evolution of the teaching profession.

The central question guiding our reflection is whether the arrival of AI is destined to completely reshape the professional landscape of teachers or simply redefine it marginally. In a world where AI is becoming an increasingly tangible presence in our daily lives, it is imperative to understand how this technology could influence teaching and the teaching profession. This article aims to explore the theories and principles underlying the applications of AI in the field of education.

We will examine how AI is currently used in education, highlighting both the strengths and limitations of these applications. We will pay particular attention to the ethical and practical challenges associated with integrating AI into the educational fabric. Subsequently, we will undertake an exploration of the future prospects of these tools, supported by a prospective analysis. We will examine the different directions that AI could take and how these evolutions could affect teaching.

We will discuss the potential implications of these evolutions for teachers, students, and the education system as a whole. Our ultimate goal is to shed nuanced light on the challenges while revealing the new opportunities that this techno-pedagogical revolution could open, thus allowing us to rethink or even improve the teaching of tomorrow. We hope that this article will contribute to a deeper understanding of the potential impact of

AI on teaching and that it will be a valuable resource for educational actors seeking to navigate this constantly evolving landscape.

II- LITERATURE REVIEW:

1) Artificial Intelligence in Education

As artificial intelligence (AI) evolves exponentially, its influence in the field of education intensifies, marking a significant turning point in how we conceive, deliver, and assimilate teaching. Our extended title, "*Artificial Intelligence in Education*," reflects our ambition to undertake an in-depth exploration, transcending conceptual boundaries to investigate a complex panorama where AI and education converge. Beyond technical aspects, we attempt to capture the nuances of interactions between AI and teaching, highlighting current applications that redefine pedagogical paradigms.

This exhaustive investigation relies on essential references. The in-depth work of Luckin (2017), "*Artificial Intelligence in Education: Promises and Implications for Teaching andLearning*," explores the promises and implications of AI in education, while the captivating work of Watters (2016), "*Teaching Machines: Learning from the Intersection of Education and Technology*," offers enlightening historical perspectives on the evolution of educational machines. However, our exploration does not confine itself to the technological surface; it also explores the complex ethical challenges raised by this symbiosis between machine and education, thus infusing a critical reflection on the delicate balance between technological advances and human considerations.

Rifkin's (1995) profound reflections on the global impact of AI on educational work in "*Artificial Intelligence and the End of Work*" and Turkle's psychological considerations in "*Alone Together*" enrich our multidimensional analysis. In parallel, we rely on the 2019 report of the Organisation for Economic Co-operation and Development (OECD), "*Artificial Intelligence in Education*," to provide an international overview of best practices and global challenges related to the integration of AI in education.

Our quest does not stop at the current examination; it also ventures into the future, anticipating evolutions that could fundamentally reshape teaching for generations to come. By integrating the innovative perspectives of Dede (2020) in "*Post-Pandemic Education and the Role of Artificial Intelligence*" on the central role of AI in post-pandemic education transformation, we hope to offer a comprehensive and enlightened vision of the crucial role and significant impact of this emerging technology in shaping the educational future. Our extended title thus aspires to invite readers to a deep dive into a complex and nuanced dialogue on how AI is redefining the educational landscape, sparking reflection, discussion, and action to forge an innovative and balanced educational future.

Creating situations in classrooms to integrate and implement AI in teaching involves several steps. These include developing specific prompts related to course materials, structuring assignments to include multiple steps, incorporating a metacognitive component, focusing assessments on current events and recent classroom discussions not included in AI training datasets, understanding the limitations of AI technologies, using AI alongside students, incorporating AI into the curriculum, recognizing the benefits and challenges of AI in the classroom, and implementing best practices for AI in the classroom (Hutson, J., & Plate, D. 2023). These strategies can guide students in their interaction with AI, structure their learning process, reinforce critical thinking and self-directed learning, ensure meaningful and relevant use of AI, emphasize the potential uses of AI, enhance teaching efficiency, personalize learning, create educational content, and improve efficiency and productivity. Through these methods, AI can be effectively integrated into classroom management.

a) **Develop Specific Prompts Related to Course Materials**: This can help guide students in their interaction with AI and contextualize its use within the learning material.
b) **Scaffold Assignments to Include Multiple Steps**: This can help structure students' interaction with AI and guide their learning process.
c) **Incorporate a Metacognitive Component**: Encourage students to describe their process and what they learned from interacting with AI. This can help reinforce critical thinking and self-directed learning.
d) **Focus Assessments on Current Events and Recent Class Discussions Not Included in AI Training Datasets**: This can help ensure that AI is used meaningfully and relevantly.
e) **Use Specific AI Tools**: Tools like OpenAI, ChatGPT4, and Generative AI can be used to enhance teaching efficiency, personalize learning, and create educational content.
f) **Improving Efficiency and Productivity**: AI can help automate or streamline certain administrative tasks, allowing teachers to spend more time teaching and working directly with students.
g) **Creating and Supplementing Content**: Through AI-powered platforms, teachers can create a range of educational resources. With generative AI in particular, teachers can create lessons, activities, assessments, discussion prompts, and presentations simply by providing a short prompt with keywords.

There are other ways that can assist teachers in integrating AI into classroom management:

a) **Develop Specific Prompts Related to Course Materials**: This can help guide students in their interaction with AI and contextualize its use within the learning material.
b) **Scaffold Assignments to Include Multiple Steps**: This can help structure students' interaction with AI and guide their learning process.
c) **Incorporate a Metacognitive Component**: Encourage students to describe their process and what they learned from interacting with AI. This can help reinforce critical thinking and self-directed learning.
d) **Focus Assessments on Current Events and Recent Classroom Discussions Not Included in AI Training Datasets**: This can help ensure that AI is used meaningfully and relevantly.
e) **Understand the Limitations of AI Technologies**: It's important for students and teachers to know what AI cannot do in order to emphasize its potential uses.
f) **Use AI alongside Your Students**: Engage with generative AI tools with your students in person, when possible. Share AI-generated responses to questions during class time and ask students to consider them.
g) **AI in Curriculum**: AI algorithms can provide students with personalized feedback and recommendations, allowing for a more engaging and effective learning experience.
h) **Benefits of AI in Classroom**: One of the key benefits of incorporating AI into the classroom is the ability to provide students with a more personalized learning experience. AI algorithms can analyse student data and adapt to their learning styles, providing feedback and recommendations that are tailored to their individual needs and abilities.
i) **Challenges of AI in Classroom**: There are several challenges associated with incorporating AI into the classroom, including the need for technical expertise, limited resources, and ethical concerns[4].
j) **Best Practices for AI in Classroom**: This includes developing specific prompts tied to course materials, scaffolding assignments to include several stages, incorporating a metacognitive component where students describe their process and what they learned from it, and focusing assessments on current events and recent classroom discussions not included in AI training datasets.

2) Artificial Intelligence in Teaching

Challenges and Prospects At the intersection of cutting-edge technology and the educational world, our title, "Artificial Intelligence in Teaching: Challenges and Prospects," foreshadows an exhaustive exploration of the profound implications of the increasing integration of artificial intelligence (AI) into the educational field. This in-depth analysis aims to dissect complex challenges while probing the promises and potentialities that this technological convergence arouses.

In this quest, we rely on a robust bibliographic foundation. The monumental "The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies" by Brynjolfsson and McAfee constitutes our starting point, unveiling the transformation of work, including the specific nuances of the teaching profession, in the era of AI. Complementing this perspective, the profound reflections of Shulman in "Teaching as Community Property: Essays on Higher Education" offer an indispensable conceptual framework for assessing the potential impact of AI on the role and responsibility of teachers as custodians of knowledge.

The ethical challenges inherent in the use of AI in education will be meticulously explored through key works. Florida, in "The Ethics of Information," provides insight into data privacy and the ethical dilemmas associated with the exploitation of vast educational data sets. Complementarily, Tufekci, with "Twitter and Tear Gas: The Power and Fragility of Networked Protest," broadens the discussion to the ethical implications of automated decision-making, raising crucial questions about transparency and accountability in an increasingly digital educational context.

Regarding prospects, our analysis will delve into the works of Siemens on "Learning Analytics: The Emergence of a Discipline," exploring how AI could transform methods of evaluation and pedagogical adaptation. In addition, the stimulating predictions of Frey and Osborne in "The Future of Employment: How Susceptible Are Jobs to Computerization?" will offer insights into how AI could reshape required skills, thus opening a window onto the future professional landscape of teachers. In conclusion, our exploration of the challenges and prospects of artificial intelligence in teaching aspires to offer an in-depth and nuanced analysis, supported by diversified bibliographic references. Through this approach, we aim to provide readers with an enlightened understanding of the complex challenges and exciting opportunities emerging from this AI-driven educational revolution.

Artificial Intelligence (AI) is increasingly being integrated into higher education across all disciplines. Here are some strategies and methods for its implementation:

1. **Develop Specific Prompts Related to Course Materials**: This strategy can guide students in their interaction with AI and contextualize its use within the learning material.
2. **Scaffold Assignments to Include Multiple Steps**: This approach can structure students' interaction with AI and guide their learning process.
3. **Incorporate a Metacognitive Component**: Encouraging students to describe their process and what they learned from interacting with AI can reinforce critical thinking and self-directed learning.

4. **Focus Assessments on Current Events and Recent Classroom Discussions Not Included in AI Training Datasets**: This method can ensure that AI is used meaningfully and relevantly[1].
5. **Understand the Limitations of AI Technologies**: It's important for students and teachers to know what AI cannot do in order to emphasize its potential uses.
6. **Use AI alongside Your Students**: Engage with generative AI tools with your students in person, when possible. Share AI-generated responses to questions during class time and ask students to consider them.
7. **AI in Curriculum**: AI algorithms can provide students with personalized feedback and recommendations, allowing for a more engaging and effective learning experience.
8. **Benefits of AI in Classroom**: One of the key benefits of incorporating AI into the classroom is the ability to provide students with a more personalized learning experience. AI algorithms can analyse student data and adapt to their learning styles, providing feedback and recommendations that are tailored to their individual needs and abilities.
9. **Challenges of AI in Classroom**: There are several challenges associated with incorporating AI into the classroom, including the need for technical expertise, limited resources, and ethical concerns.
10. **Best Practices for AI in Classroom**: This includes developing specific prompts tied to course materials, scaffolding assignments to include several stages, incorporating a metacognitive component where students describe their process and what they learned from it, and focusing assessments on current events and recent classroom discussions not included in AI training datasets.

    In addition to these strategies, research has shown that AI can help instructors create material that supports these strategies and improve student learning. The strategies include providing multiple examples and explanations, uncovering and addressing student misconceptions, frequent low-stakes testing, assessing student learning, and distributed practice.

    Furthermore, AI can be used to augment rather than replace human intelligence. It can be used as an instructional tool rather than a fully automated system. It can also be used to improve academic assessment and self-assessment methods[3]. Lastly, it is important to critically review the results of generative AI system

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3) Critical challenges of AI integration

Challenges and Prospects The evolution of artificial intelligence (AI) in the educational field, observed with growing interest over the past thirty years, has experienced a remarkable acceleration recently, driven by significant technical advances. In a systematic literature review conducted by Zawacki-Richter et al. (2019), four key applications of AI in higher education were identified, thus illuminating the multiple facets of its influence:

a) Profiling and Prediction: Encompassing areas such as admission to study programs and dropout prevention, this application leverages the predictive capabilities of AI to anticipate the needs and risks of students.

b) Intelligent Tutoring Systems: Delving into the teaching of specific pedagogical content and the provision of personalized feedback, this application aims to individualize the learning experience.

c) Measurement and Evaluation: Including aspects such as automatic grading and assessment of academic engagement, this use of AI aims to objectify evaluation processes.

d) Adaptive and Personalized Systems: Encompassing features such as the recommendation and selection of individually adapted content, this application strives to personalize learning according to the unique needs of each learner.

However, despite the rapid growth of these applications, the ethical and critical challenges inherent in the integration of AI in higher education remain under-investigated, just like in the global educational field. The first category of concerns relates to the manipulation of massive data necessary for AI, raising the possibility of introducing biases and raising fundamental questions about respect for the privacy of students and educational staff.

It should be noted that while many of the issues mentioned above are not specific to AI, being shared by other technologies, they take on a particular dimension and are potentially exacerbated in the context of education due to the constant developments of AI. In conclusion, while opening a promising range of opportunities, the integration of AI in education raises substantial ethical and critical challenges that require in-depth exploration and enlightened management. This underscores the imperative for a careful and balanced examination to guide the responsible and beneficial use of AI in the educational framework.

III) Case study: AI implementation in the Algerian Context

1) Educational Landscape in Algeria

Algeria, like many other countries, is exploring the integration of AI into its educational system. The Algerian educational landscape is characterized by a centralized system where Arabic and French dominate as the mediums of instruction. However, there is a significant push towards integrating modern technologies to enhance educational outcomes and accessibility. In this context, AI has the potential to address some of the unique challenges faced by the Algerian education system, such as high student-to-teacher ratios, regional disparities in educational quality, and the need for personalized learning.

2) Current Applications of AI in Algerian Education

In Algeria, AI is being implemented in several areas to support and enhance the educational experience:

Personalized Learning: AI-driven platforms are being developed to offer personalized learning experiences to students. These platforms can adapt to the learning pace and style of each student, providing tailored content and feedback. This is particularly beneficial in large classrooms where individual attention from teachers is limited.

Administrative Efficiency:

AI is being used to automate administrative tasks such as grading, attendance tracking, and scheduling. This allows teachers to focus more on instructional time and less on routine administrative duties.

Language Learning:

Given Algeria's multilingual context, AI-powered language learning tools are being utilized to help students learn and practice languages more effectively. These tools offer interactive and engaging ways to learn languages, which can be particularly useful in a diverse linguistic environment.

Adaptive Learning Systems:

AI technologies are being used to create adaptive learning systems that can provide real-time feedback and adjustments to the learning process. These systems can help identify students' strengths and weaknesses, offering targeted interventions to improve learning outcomes.

Virtual Classrooms and E-Learning Platforms: AI-powered virtual classrooms and e-learning platforms are being developed to facilitate remote learning. These platforms can provide a range of interactive tools and resources to support both teachers and students in a virtual learning environment.

3) The Impact of AI on Education in Algeria

Artificial Intelligence (AI) is becoming an essential driver of change in many sectors of our society, and the field of education is not exempt from this technological revolution. In this context, we are witnessing the emergence of AI-based assistants designed to support teachers in their work or even replace certain aspects of their tasks. The introduction of these cognitive technologies into the school environment raises profound questions about the future evolution of the teaching profession.

The central question guiding our reflection is whether the arrival of AI is destined to completely reshape the professional landscape of teachers or simply redefine it marginally. In a world where AI is becoming an increasingly tangible presence in our daily lives, it is imperative to understand how this technology could influence teaching and the teaching profession. This article aims to explore the theories and principles underlying the applications of AI in the field of education.

4) Challenges and Ethical Considerations

While the integration of AI in education offers numerous benefits, it also presents several challenges and ethical considerations:

Digital Divide: There is a significant digital divide in Algeria, with rural areas having less access to advanced technologies compared to urban centers. Ensuring equitable access to AI-driven educational tools is a major challenge.

Data Privacy: The use of AI in education involves the collection and analysis of large amounts of data. Ensuring the privacy and security of student data is crucial, and robust data protection policies need to be in place.

Teacher Training: Effective integration of AI in education requires that teachers are adequately trained to use these technologies. This involves not only technical training but also an understanding of how to integrate AI tools into their pedagogical practices.

Cultural and Linguistic Sensitivity: AI systems must be designed to respect and accommodate the cultural and linguistic diversity of Algeria. This includes ensuring that AI tools can support multiple languages and dialects, and are sensitive to the cultural context of the students.

Ethical Use of AI: There are broader ethical concerns related to the use of AI in education, such as the potential for algorithmic bias, the impact on teacher-student relationships, and the need to ensure that AI is used to enhance rather than replace human teachers.

5) Future Prospects

Looking ahead, there are several promising directions for the integration of AI in Algerian education:

Enhanced Teacher Support: AI can serve as a valuable tool for teachers, providing them with insights into student performance and helping them identify areas where students may need additional support. This can lead to more targeted and effective teaching strategies.

Scalable Solutions: AI has the potential to provide scalable solutions that can be deployed across various regions in Algeria, helping to bridge the gap between urban and rural education systems.

Innovative Learning Models: The future of AI in education could see the development of new and innovative learning models that blend traditional classroom instruction with AI-driven personalized learning. This hybrid approach can offer the best of both worlds, enhancing the overall educational experience.

AI-Enhanced Curriculum Development: AI can be used to develop and continuously improve curriculum materials, ensuring that they are up-to-date, relevant, and tailored to the needs of students. This can include creating interactive and multimedia-rich content that engages students and supports different learning styles.

Professional Development for Teachers: Ongoing professional development programs can be designed to help teachers stay abreast of the latest AI technologies and best practices for integrating them into their teaching. This can include training on how to use AI tools effectively, as well as how to address ethical and practical challenges.

Collaborative Learning Environments: AI can facilitate the creation of collaborative learning environments where students can work together on projects, share ideas, and receive feedback from AI-driven systems. This can enhance peer learning and foster a more interactive and engaging classroom experience.

The integration of AI in education in Algeria is still in its early stages, but it holds significant promise for transforming the teaching profession and unlocking future opportunities for students. By addressing current challenges and leveraging AI's potential, Algeria can enhance its educational system, making it more efficient, personalized, and accessible. However, this transformation must be guided by ethical considerations and a commitment to ensuring equitable access to AI technologies across all regions of the country. With the right strategies and investments, AI can play a crucial role in shaping the future of education in Algeria, providing new opportunities for both teachers and students.

4) Artificial Intelligence and the Futures of Learning

Numerous prospective studies envisioning the future of the teaching profession agree that artificial intelligence (AI) is set to play an increasingly significant role in learning modalities (OECD, 2021). Driven by the spectacular advances in deep learning in recent years, several reports even anticipate the imminent advent of humanoid robots capable of replacing teachers in knowledge transmission. Indeed, machine learning algorithms already demonstrate impressive abilities to ingest a considerable amount of data, extract complex patterns and correlations, and personalize pedagogical content according to the needs of each learner.

Coupled with human-inspired dialogue interfaces, these technologies hint at the emergence of highly efficient virtual pedagogical agents. Some experts thus predict the emergence of a form of algorithmic teaching

that is individualized and adaptively real-time, centred on the learner, which would signal the end of teacher-centred transmissive modes (Friedman, 2017). As time-consuming administrative tasks are largely automated, the role of the teacher would be considerably diminished, if not supplanted. However, this scenario of a substitution of teachers by AI still faces serious technical and ethical limitations.

Indeed, despite their undeniable advantages, current technologies struggle to reproduce the socio-emotional complexity of face-to-face human learning situations (Guerriero, 2021). For example, AI excels in data analysis but has difficulty understanding the emotions or motivational states of students. Similarly, it struggles to effectively stimulate critical thinking, creativity, or deep engagement of learners, all non-computational skills that are essential in a successful learning process (VanLeeuwen et al., 2021).

Therefore, rather than a straightforward substitution, the most likely scenario in the medium term would be that of increased collaboration between teachers and AI. In this form of "augmented teaching," the teacher would retain the social, emotional, and creative dimensions of instruction, while AI would assist in personalizing content according to the needs of each student. Such a distribution of roles would, however, require a profound overhaul of teacher training programs and significant work on the acceptability of these technologies. But, given these evolutions, this unprecedented human-machine partnership could pave the way for a positive transformation of the teaching profession.

5- How to Integrate Artificial Intelligence into the World of Teaching

The advent of artificial intelligence (AI) technologies for educational purposes raises significant challenges regarding their integration into the school context. Before any large-scale deployment, a rigorous examination of the implementation conditions, technological and pedagogical, as well as ethical, appears indispensable. On the technological level, the introduction of AI tools requires adapted digital infrastructures that are still absent from many institutions (OECD, 2021). The cost of such infrastructures also questions the ability of public policies to generalize such innovations on a national scale.

In parallel, the collection and algorithmic analysis of massive learning data pose cyber security and privacy challenges that must be anticipated (UNESCO, 2021). On the pedagogical level, the claimed effectiveness of Ed Tech solutions using AI to improve learning outcomes remains to be empirically confirmed. While some studies report significant gains, other works highlight the risks of excessive personalization leading to confining learners in "filter bubbles" (Pariser 2012). The ability of these systems to truly develop students' autonomy and critical thinking is also questioned (Elana al., 2020).

Furthermore, the successful deployment of these innovations presupposes a profound transformation of teaching practices. However, the lack of familiarity of teachers with AI environments raises a major training challenge, without which these technologies will remain underutilized, if not rejected (Karsenti, 2019). Moreover, by automating certain tasks, AI risks devaluing the profession and provoking strong resistance. Here again, significant efforts to explain the objectives and support change are necessary. Thus, rather than a techno-centered approach, it is indeed a global transition that the integration of AI in education imposes.

A transition requiring simultaneous evolutions on the technological, organizational, pedagogical, and ethical levels to guarantee uses that are both useful and responsible in the service of the mission of instruction. At the center of this transformation, the challenge will be less to replace the human than to think of new human-machine synergies in the service of learning.

IV - DISCUSSIONS

If our prospective analysis has allowed us to envisage several scenarios regarding the evolution of the teaching profession in the era of artificial intelligence (AI), a complete shift towards entirely automated teaching appears unlikely at this stage.

Indeed, despite their spectacular progress, current algorithms cannot reproduce the socio-emotional complexity of face-to-face learning situations. The pedagogical relationship relies on a multitude of micro-adjustments, empathy, and reciprocity that are difficult to mathematically model (Guerriero, 2021). Above all, the act of teaching engages an ethical responsibility towards the construction of each student, a dimension that is difficult to delegate to a machine, however advanced it may be.

However, between these extreme scenarios of complete substitution or outright rejection of the machine, intermediate perspectives rich in hybridization opportunities are emerging. AI could assist teachers, relieve their cognitive load on certain tasks, and thus allow them to refocus on the most creative and human aspects of their profession. It is in this sense that many studies foresee the emergence of a form of "augmented teaching" combining the best of human and artificial capabilities (Van Leeuwen et al. 2021).

Concretely, this would imply, for example, that conversational agents provide individualized follow-ups for students to relieve the teacher while providing them with cutting-edge analytics on the needs of the class. Immersive environments stimulate the creativity of learners, which the teacher would then have the leisure to guide towards unique achievements that are irreproducible by a machine. The precise contours of these synergies remain to be invented; however, they raise many questions that will need to be investigated in future work. What new curriculum and competency frameworks? What governance of learner data? What ethical guarantees? All

these projects call for an enhanced dialogue between researchers, practitioners, and policymakers to co-construct the future of teaching in the cognitive era.

V - CONCLUSION

At the end of our analysis, it is clear that the irruption of artificial intelligence (AI) in the world of education raises as many opportunities for transformation as risks of disruption. In the short term, AI assistants are confined to peripheral tasks, but the continuous expansion of algorithmic capabilities suggests that cognitive agents capable of supporting or even replacing teachers in some of their activities could eventually reshape the contours of this age-old profession.

However, despite their exponential performance, the current limitations of these technologies to grasp the full complexity of human relationships make their complete substitution for the teacher unlikely. Between these extremes, it is therefore very likely that an increased hybridization between pedagogy and AI is emerging, paving the way for a redefinition of the profession around new human-machine partnerships. This is provided that the numerous associated challenges, whether technological, ethical, social, or organizational, are met.

It is at this price that this digital revolution can be converted into an opportunity for reinvention for the School of tomorrow. Several research avenues thus remain to be explored to best accompany these changes. These include the need for interdisciplinary work bringing together computer scientists, pedagogues, and digital humanities to imagine the contours of these synergies under construction.

Or the crucial need for field studies among the main stakeholders - teachers and learners - to finely understand representations and expectations vis-à-vis these emerging technologies. These stimulating perspectives invite the scientific community to fully invest in the still nascent field of “educational AI” and its multiple implications.

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