The Challenges of Artificial Inteligence in Education

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Lorenzo Cesaretti states that we live in a world increasingly connected and permeated by digital technologies and devices. As proposed by Luciano Floridi, it no longer even makes sense to ask whether we are online (connected) or offline (disconnected), as the pervasiveness achieved by devices allows us to live *"onlife"*: the digital is now an integral part of everyday experience, inseparated from the reality we perceive and interact with. Within this *"onlife"*, Artificial Intelligence (AI) is assuming a predominant role, underpinning numerous technological platforms that enable a wide variety of activities.

In the context of education, AI emerges as a catalyst for change, unlocking unprecedented educational potential. According to UNESCO, AI can profoundly transform the education sector, from management to teaching methodologies, provided it is used responsibly and ethically. Presently, AI within education is still exploring its full potential, yet its undeniable presence manifests in 24-hour student support chatbots, automation of administrative tasks for teachers, and online learning systems.

Technology has begun to facilitate educational management, improving the efficiency of learning management systems. It is also makes it possible to track student performance in real time and customize curricula. This potential of technology, especially AI, is particularly important for Latin America and the Caribbean, regions facing major structural challenges in their education systems.

Technological developments can support education systems in better managing at least three major challenges. Firstly, one of the significant educational challenges in Latin America is that 36% of young people do not complete secondary education; they drop out before finishing. Instead of obtaining data when the student drops out, these tools provide a "map" at the beginning of the year, identifying students potentially at risk.

Moreover, technology plays a crucial role in addressing the learning crisis, especially in foundational skills such as Language and Math. Solutions are being developed to assess reading fluency and accuracy using artificial intelligence and new technologies. Projects are also underway to combine AI with virtual reality games to improve literacy in children with dyslexia, impacting educational inclusion. These platforms offer vast possibilities to address the specific needs of each student and take advantage of new technological tools.

Finally, the use of Artificial Intelligence has the capacity to transform assessment systems towards a more personalized approach, allowing students to perform self-assessments and receive instant feedback on the content they need to

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strengthen and where to find material to achieve it. The real challenge does not lie in technology, but in the deeper problems afflicting education systems. Low quality and high inequity, critical obstacles that need to be addressed.

This is where AI comes into play as a tool that goes beyond automation. With its ability to personalize, it can tailor education to meet the individual needs of students or teachers, advancing beyond mere technical efficiency.

It is also crucial to evaluate how two forces are converging in the educational world today. The world is advancing rapidly with technology, while classical methods and stagnant educational systems persist. In this sense, AI takes its place and shows us a firmer step into the future of education. AI not only improves efficiency but redefines the way we conceive education. From facilitating teaching to promoting equity and inclusion, the benefits are as tangible as they are transformative.

For instance, teachers can use AI to automate administrative tasks, freeing them to focus on teaching. Intelligent tutoring systems can adapt to the learning needs of each student, promoting more effective, personalized, and engaging learning. Artificial intelligence applications and AI algorithms can track student performance in real time, providing immediate feedback to improve comprehension and retention of information. In administrative terms, AI can improve the efficiency of administrative and management tasks in schools, from scheduling classes to managing grades.

We can also explore how AI systems can adapt to the needs of all students, regardless of their skill level, background, or physical or intellectual abilities, thus having a positive AI impact on educational equity. As mentioned above, AI can identify students at risk of dropping out of school and provide early interventions, contributing to improvements in academic performance and success in every program of study.

It is also necessary to consider that the responsible use of AI in education requires a clear understanding of its benefits and limitations, as

well as a consideration of the nuances that only human intelligence possesses. That is the flip side of the coin, and what makes it important to approach technological tools with a responsible perspective and in line with the core educational policies of our century.

To name a few, these are the challenges in the educational field: although AI in education aims to adapt to the individual needs of students, there is a risk that personalization will be superficial and not adequately reflect the complexities of each student of learning process. Also, AI may perpetuate or even exacerbate existing inequalities in the education system. For example, AI algorithms may be biased or students with limited access to technology may be left behind.

Other risks may include: the collection and use of personal data in educational settings through AI may raise concerns about the privacy and security of student information. Ensuring robust measures to protect sensitive information, including in interactions with technologies such as CHATGPT, is critical. The use of artificial intelligence, robotics, and the many technological conveniences of our times can make students and educators less dependent on important human skills, such as decision-making, critical thinking, and problem solving. AI is only as good as the data provided to it; if educational content is of poor quality, student learning will suffer.

The responsible integration of AI in education is not only inevitable, but also, essential to unlock the full potential of learning. By understanding its current state, harnessing its benefits, and exploring future avenues, we are poised to embrace an educational future where educational technology not only coexists with learning but, empowers it.

This evolution in the age of AI contributes not only to educational goals, but also to sustainable development goals, thus, promoting education that fosters gender equality and equity.

AI is not just the future of education; it is already shaping the educational present, challenging and transforming the way we teach and learn.

References

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