

## Al in education: transformational or a disruption to the system?

By <u>Dr Benadette Aineamani</u> 15 Mar 2023

Artificial Intelligence (AI) has been on an exponential rise in recent months, with its impact being felt and experienced across every sector, with a particularly widespread ripple in education.

Following the launch of the revolutionary AI chatbot, ChatGPT, news publications and social media posts were flooded with information about how this platform pitted teachers against technology. While research argues that AI may threaten the education sector, incorporating AI also presents unique possibilities. There is no escaping the fact that this genie has been let out of the bottle, so we had better begin harnessing its power rather than only fearing its consequences.

All can enhance the personalisation and effectiveness of education in various ways. All enables personalisation through learning by creating a learning path tailored to a learner's journey. The technology can analyse a student's unique learning style, strengths, and weaknesses while formulating customised learning plans with real-time feedback. All can also automate administration-related tasks such as grading and setting up assessments, reducing teachers' time and effort and providing more accurate and objective grading.



Dr Benadette Aineamani, product and services director at Maskew Mller Learning. Image supplied



Al and higher education: What must tertiary institutions consider?

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These advantages are particularly relevant in South Africa. The looming teacher shortage may present significant

challenges as many schools will need help to provide adequate education to students. All can help address this issue by providing educational resources and support to students.

However, while the benefits are clear, we must always consider the ethics involved when using AI in education. We should never overlook the imminent threat of plagiarism in AI chatbots like ChatGPT. It is important for learners to note that using outputs from language models produced from ChatGPT as their own work without referencing or attribution is not an ethical practice.

However, there are ways teachers, and learning institutions can protect themselves against AI plagiarism and uphold academic integrity. Using plagiarism software is an excellent way to ensure learners submit their own work. Teachers also need to encourage learners to submit their original work, as this promotes critical thinking and creative problem-solving. Regularly checking and monitoring student work is another way teaching and learning institutions can protect themselves against plagiarism.



ChatGPT and education: a cheating tool or an opportunity to improve learning?

The integration of AI and tools like ChatGPT in the classroom has the potential to impact the role of teachers in several ways:

- Augmenting teaching: All can assist teachers in grading, personalising learning, and providing real-time feedback to students, freeing up time for more meaningful interaction and instruction.
- Enhancing efficiency: This technology can automate routine tasks and provide data-driven insights, allowing teachers to focus on more strategic and creative tasks.
- **Promoting collaboration**: It also facilitates communication and cooperation between teachers, students, and parents and provides new ways for teachers to work together and share best practices.
- **Re-defining teaching**: All can create new learning opportunities and experiences that were not previously possible, challenging teachers to rethink their traditional approaches and adapt to new pedagogical models.

While AI presents many promising possibilities to the education industry, it is not without challenges. Recent data by Statista suggests a spike in the number of active internet users in South Africa. However, many do not have access to the internet and other digital tools. Therefore, adopting AI may deepen the digital divide and cause further disparities in access to AI technologies, with some students and schools benefiting more than others.

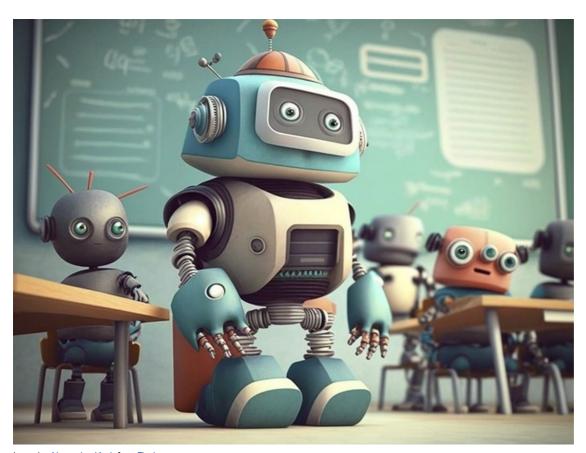


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When analysing Al's role in education, it is vital to consider the long-term consequences. Al can impact human interaction since learners may be working on devices. Al also reduces opportunities for learners to communicate their reasoning, which may affect their thinking power. Jobs are also impacted if Al technology evolves and training data is available to programme machines to do all tasks, including those categorised as needing human interaction.



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However, it's essential to keep in mind that AI is not a replacement for human teachers but rather a tool to support and enhance their work. What sets teachers apart is their crucial role in providing emotional support and guidance and creating a safe and inclusive learning environment for students. AI cannot replicate these skills, or should we call them human strengths?

All-in-all, Al has great potential to revolutionise the education sector but poses significant risks in South Africa and the world at large. Education institutions and policymakers need to carefully consider both the possibilities and perils of Al in the education system and develop strategies that harness the power of this technology while minimising its threats to create better futures for learners of tomorrow.

## ABOUT THE AUTHOR

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