Can AI revolutionise education in South Africa?

By [Corrin Varady](#)   25 Apr 2023

After its introduction, ChatGPT received criticism from educational institutions and teachers worldwide due to its potential for misuse by students, who can use it not only to produce essays but also to pass exams. As a result, some schools have banned the platform. However, this is a significant oversight because the underlying AI and machine learning technologies could help address many of the issues faced by South Africa's public education system.

Dr Corrin Varady, CEO of ed-tech platform Idea

The power of personalisation

Unlike their more affluent counterparts, learners who attend schools in quintiles 1, 2 and 3, i.e., the poorest in each province, don't have access to personalised education.

Their more privileged peers tend to succeed academically because they have access to tutors, resources, and parents with generational literacy who know what to do if their child is struggling with certain concepts. At the same time, they attend schools that identify where learners have problems and provide them with help in these areas.

All these interventions ensure that these pupils won't have to hobble through the rest of their academic careers just because they didn't grasp the basics.

AI and machine learning could give learners in lower-quintile schools the same advantage. These technologies help pinpoint where they are battling and provide personalised learning solutions to remediate this.

Caught in the middle

Personalisation might also take some of the burden off stretched teachers. While large class sizes have always been a feature of schools in South Africa, now 15% of primary schools have more than 50 learners per class, while around 50% have over 40 - a significant jump from the 35.2 average prior to the pandemic.

This, coupled with the learning losses that occurred as a result of lockdowns, means that teachers now have to contend with teaching pupils who may have a 5% chance of passing their exams and those with a 95% chance, in once class.

Placed in this position, they then 'teach to the middle', in other words they focus on the needs of those pupils who fall in between these two extremes, while negating the needs of those at each end of the spectrum who then tend to 'check out'.

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AI, however, could help educators to teach multiple kids with different learning paces or abilities all at the same time. The competencies of individual learners could automatically be detected by the technology which would then develop learning pathways that are tailored for their needs.

Teachers can also harness AI for their own professional development. For instance, they can ask questions about how to manage some of the major challenges they're experiencing in their classrooms and obtain resources and remediation strategies that could assist them.

Accelerating the move to mother-tongue education

Basic Education Minister Angie Motshekga has said that children are performing poorly in school because they are being taught in English—a language that is foreign to them. But, with AI's ability to translate English into a growing number of local languages, South African pupils can start learning in their own languages.

While this is currently skewed towards certain languages, it is my hope that all 11 languages will one day be available.

Like it or not, AI is already here and here to stay. But if we don't use it to create a better learning environment for today's public school pupils - who will form the majority of tomorrow's workforce –and equip them with the skills to be able to engage with it, we're essentially cutting them off from participating in the digital economy.

Consequently, the country's employment crisis will worsen. It is in basic education where we create the runway towards job creation in South Africa and technology can help ensure that no one gets left behind.

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