

## The next wave of technology transforming the classroom

By Nirvani Dhevcharran 8 Feb 2017

Imagine you are a high school learner struggling with the textbook in front of you. You point your smartphone and ta-da – a video pops up on screen.



Sound too good to be true? This type of technology – called augmented reality as it digitally 'augments' or adds additional features such as pictures, text or video to printed and other educational material – is already being used in classrooms in some parts of the world. It is only a matter of time before it makes headway in South Africa – with the potential of becoming a game-changer in our education system.

Virtual reality is another emerging technology which could transform the learning experience. It enables students to learn in a three-dimensional (3D) environment, bringing abstract concepts to 'life'. Imagine going on a virtual 'walk' along the Great Wall of China, or taking an exploratory trip through our solar system, using your smartphone as a virtual reality headset? This type of technology can turn the traditional method of teaching on its head, making learning fun and truly immersive.

In South African schools, it is the adoption of basic digital learning programmes (on either smartphones or tablets) which is starting to make inroads in terms of transforming learning experiences. A number of private and public schools have introduced digital content, and digital content providers are moving away from mere ebooks to interactive materials aimed at keeping learners engaged.

- Adaptive and analytical tools to assess individual learners' performance, and identify assistance and further learning as required.
- 3D printing, for example, in architecture courses where students can transform their building designs to 3D models.
- Massive Online Open Courses (MOOCS), which have been introduced at certain South African universities and provide free courseware in a truly collaborative way.
- Digital learner assessments these are being implemented at tertiary institutions in South Africa.
- Customer relationship management (CRM), where the learner or student is the customer the idea is to personalise and enhance student experience from time of application to the institution to becoming an alumni.
- Collaborative tools such as voice, video or web conferencing, discussion boards, instant messaging and screen sharing.

## **Educators key to success**

Of course, the success of digital technology in the classroom is determined largely by the digital knowledge of the educators concerned, and their willingness to embed digital learning into the curriculum. Technology can be used as a tool to greatly enhance their teaching capacity and professional skills and can give learners the edge in an increasingly techcentric world.

In a world where digital tools support virtually every part of our lives, it is surprising that the full power of such tools has yet to be unleashed to those who might benefit most - educators and learners.

While learners are more inclined to embrace technology easily, educators can also learn, and become less intimidated by all these tools, words and concepts.

## Taking it offline

In South Africa, technology solutions that can work in an offline environment remain best suited to our market. Due to cost constraints, basic digital learning programmes are the best option in the short-term. Although declining, the costs of both virtual and augmented reality, as well as 3D printing, remain prohibitive in the South African context.

Undoubtedly, technology is disrupting the education experience worldwide, and also in South Africa. It caters for a diversity of learning styles, and makes studying fun and engaging. It is the evolution of textbook content from merely being 'text behind glass' to truly interactive content that will have the biggest impact on the learning environment, with the right teacher support models in place, the potential for digital technology to improve learner outcomes over the long term in South Africa, is unlimited.

Digital/technology should be embraced in our education system, and we can hold each other on this journey step by step.

## ABOUT THE AUTHOR

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