

How disruptive technologies are transforming education

How is your spelling? Or rather, how is your spelling when you are lying on your back remote-navigating a virtual paper aeroplane? This integration of the motor senses with learning is one example of technology challenging traditionally accepted teaching methods.



Another is a virtual chemistry lab table, where children interact with elements and create chemical reactions by placing physical cards on a glass projection screen and watching to find out what happens next. That is one way to teach chemistry, without the potential of burnt fingers and at a much lower cost than a full-scale chemistry lab. Both of these 'edu-tech' teaching tools already exist; innovations designed by Formula-D Interactive to supplement and enhance children's learning experiences while preparing them for a tech future.

For many, this future will require hard skills like coding and programming. However, with technology developing at its current speed, they will all need to be able to figure out how technology works without a manual, says Patricia Gouws, senior lecturer in the College of Science Engineering and Technology (CSET) at the University of South Africa. For this reason, CSET are teaching children robotics by giving them the opportunity to build and code robots themselves.

This not only teaches them about teamwork, it also teaches them engineering and programming principles. More importantly, they are trained to figure things out for themselves - learning through doing. "We are preparing children to think and learn, and we are teaching them that programming is not difficult or scary," says Gouws.

Accessibility

This technology is not available to the average child yet, especially in previously disadvantaged communities. One challenge is accessibility: moving entire computer labs or virtual reality sets from school to school is no small feat. UNISA is solving this challenge by stocking a mobile unit that brings robotics to children who would otherwise not be able to participate.

A second challenge is the cost of getting advanced technology into impoverished areas, which is why solutions like the virtual chemistry lab table are designed to be more affordable. Marco Rosa, managing director at Formula-D Interactive, expects these types of solutions to become more common in future. A further challenge is mindset: “Some people, including teachers, often connect ‘education’ with ‘books and pens’, while technology like games and computers are categorised as fun entertainment and even a distraction to the learning process,” says Rosa. “However, this technology can be a fantastic way to enhance the learning process. The more people who realise that, the more we can use it to prepare children for the future.”

A powerful way of overcoming these challenges is to shift the mindset from using edu-tech as a community or social investment project, to it being imperative for achieving the business goals of corporates. It is also not limited to children. For example, South African consumers owe R1.78 trillion in credit: increasing their financial literacy is not only good for them, but also for the banks who provide credit services. Sea Monster therefore created Moneyversity, a mobile and web interactive platform featuring engaging and educational animated content, articles and interactive elements to enhance personal finance, for Old Mutual. The learner management system platform offers 14 courses covering the basic of personal finance, to help customers to be financially smart. This enables them to understand and use products like credit responsibly.

“By doing this, you are not just building a more responsible consumer base today and letting them interact voluntarily with the brand, but you are creating a new market in future,” says Glenn Gillis, CEO of Sea Monster. “Traditionally edu-tech is narrowly defined as ‘How can we use the technology for school children?’ It now includes how companies use education (of both children and adults) to unlock strategic value. The opportunities are endless!”

Disruption at SA Innovation Summit

To find out more about and interact with the innovations impacting on education and training, delegates at the SA Innovation Summit 2018 will have access to the Disrupt Stage.

The interactive Disrupt Stage will consist of a showcase, master classes and a deep dive that will provide delegates with a blueprint for disruption for their concept, product or new venture.

The Summit, taking place at the Cape Town Stadium from 12 - 14 September 2018, will feature UNISA’s robotics classes, as well as Formula-D Innovation’s Life’s A Breeze innovation. Sea Monster’s animation, games, and augmented and virtual reality disruptions will also be part of the experience.

For more information, visit the www.innovationsummit.co.za or follow SA Innovation Summit on Twitter ([@InnovSummit](https://twitter.com/InnovSummit)) or Facebook ([@SAInnovation](https://www.facebook.com/SAInnovation)).

For more, visit: <https://www.bizcommunity.com>