How to prepare South African youth for the digital economy:

Report from the TechSalon session in Joburg in June 2018 - *"How will South Africa harness the fourth industrial revolution for youth employment?"*

Digital technology is transforming economies and the world of work in profound ways. Traditional jobs are being transformed while new forms of work are being created.

A panel discussion explored how the South African market needs to prepare young people to find employment in the fourth industrial revolution.

"How will South Africa harness the fourth industrial revolution for youth employment?" was a session during the Technology Salon South Africa in June 2018. It involved digital professionals, M&E officials, youth-facing programme implementers and NGOs. The group was led by the manager of the Harambee Youth Employment Accelerator, Siven Maslamoney, and the former CEO of Babajob.com in India, Sean Blagsvedt. The session was chaired by Genesis Analytics founder Stephan Malherbe.

Digital skills can be categorised in two groups: sophisticated skills and point of entry skills. Sophisticated digital skills were defined as the ability to add value to existing technologies – such as the creators of Uber have done. These skills integrate different software and technologies, turning them into a unique value proposition.

Sophisticated skills require familiarity with digital technology, ability to continuously learn and adapt as well as a deep awareness of what's happening in the world. Entry-level skills are basic digital skills that create access points to employment opportunities. As the world of work evolves, traditional jobs increasingly use digital technology in their daily operations.

Challenges to digital proficiency

The digital skills of South African youth, both sophisticated and entry-level, are still marginally behind those of young people in other developing countries and it is important to understand this in addressing the problem.

Confidence

Most young people in South Africa who have grown up in poverty have a debilitating fear of failure that prevents them from trying new things, particularly in digital technology.

Poverty restricts young people's ability to innovate and take risks because their options are fewer and the costs of failure are high. In a country where a large part of the population lives in poverty, young people need motivation and confidence.

Confidence creates change, facilitates curiosity and innovation and allows young people to take risks – including that of using and exploring technology. Confidence is built when young people do something they thought they couldn't. It helps them grow and gives them confidence. The government, NGOs and programme implementers need to provide an environment that makes this happen.

Access

A key enabler of digital proficiency is access to free and reliable internet sources. The Hole in the Wall experiment conducted in India is evidence that free access to the internet is a breeding ground for learning, exploration and innovation. The experiment provided communities in India with free and public access to computers and the internet, regardless of who they were or what language they spoke.

Children in those communities:

* Became computer literate on their own

* Taught themselves to use email, chat and search engines

* Learnt to search the internet for answers to their questions

* Improved their mathematics and science scores in school

* Formed independent opinions.

The high price of data in South Africa reduces young people's access to the internet and limits their ability to explore. The strength of telecommunications regulators in South Africa and the lack of state political will to intervene are some of the reasons why the cost of data remains high.

Topics discussed were the need for free internet access (or at a much reduced cost) and high-quality internet through municipal WiFi, free applications and state intervention. Such opportunities could help young people develop the skills required for the changing global economy.

In addition there are environmental issues that may be hindering South Africa's ability to move forward in digital technology. Smartphone penetration remains lower than global averages at just over 40%. Given that smartphones are often the first entry point to the world of digital technology, it is concerning that most young people in South Africa don't have access.

Crime is considered a big obstacle to participating in digital technology. An example given at the discussion was that while free WiFi was provided at work, employees did not bring their smartphones for fear of these being stolen in transit.

Education system

South Africa's education system is still based on archaic teaching methods and traditions. Innovation, creativity and exploration are not actively encouraged and school-based computer-driven teaching does not foster self-directed learning and curiosity. Institutionalised thinking in the education system is a barrier to new teaching methods critical for imparting digital skills and the ability to learn them.

In many cases, the teachers' digital proficiencies are much lower than those of their students and as such they cannot teach what they do not know. In addition the prevalence of digital technologies, particularly in rural and township schools, is low. This reinforces the status quo and widens the inequality gap.

Way forward

The challenges are complex and they require a multi-dimensional set of solutions that involve a coordinated effort from industry and government. We may not get there immediately but there are small things that we can do to shift the dial.

Give young people a sense of belonging.

Give young people sight of the opportunities that are available to them.

Incorporate gamification and problem-based learning into the education system.

It was not beyond the group that these points are, in many ways, not exclusive to digital skills. They are also fundamental for the growth and development of a youth cohort that is able to operate in the 21st century and be part of the fourth industrial revolution.

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