Plugging the IT skills gap in SA

By Andrew Hoseck   31 Mar 2020

Information Technology skills in South Africa and the rest of Africa are becoming increasingly hard to find. A difficult situation is exacerbated by an unemployment rate which recently peaked at 29% in the final quarter of 2019. The highest it's been in 11 years, it's clear that the responsibility for solving unemployment is too big to rest solely on our government's shoulders.

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As a result, the private sector needs to take an active role in developing the necessary IT skills. However, this needs to be executed in a way that plugs the gap through the skills upliftment and job creation necessary to transform our economy and drive positive change.

Current overview: 4IR still demands human skill

The increase for IT specialists is only going to grow as we move deeper into the Fourth Industrial Revolution (4IR). According to a report from the World Economic Forum, more than 35% of skills that are considered vital in today's workforce will have evolved in the next five years to meet the demands in advanced robotics and autonomous transport, Artificial Intelligence (AI) and machine learning, biotechnology and genomics.

Locally, the Critical Skills list was reviewed by the Department of Home Affairs in 2019 and it was revealed that the country is currently in desperate need of a number of skills with ICT specialists and engineers topping the list.

So, why is there such a deficit in IT skills in South Africa?

Along with homegrown skills emigrating, the current lack of access to technology, connectivity, education and the high cost of data has severely restricted the number of young people equipped to enter the IT industry, particularly in rural areas. Furthermore, a mismatch in demand and supply see the skills developed not being a suitable match for those currently in demand.

How do we solve this skills shortage?

The answer lies in preparing for today and tomorrow through skills development programmes that cater to current and emerging technologies. Change is happening fast, and humans need to move faster to keep up. IT companies, especially those that provide IT services rely strongly on skilled resources in order to grow their businesses, along with the skills necessary to adapt as new technologies emerge. This means existing employees need to be in a continuous state of reskilling and up-skilling.

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While the fact that the 4IR has shifted the focus to automation and AI may be seen as a threat to human employment in many industries, the opposite is true in ICT, where it is in fact actually creating opportunities for skilled employment.

Which are the scarcest IT skills in SA at the moment?

Here, we're talking skills and expertise in information and cybersecurity, AI, programming, Robotic Process Automation (RPA), test automation, data science and the Internet of Things (IoT). In order to address this shortage, companies need to be addressing two other critical areas: job creation and specialised skills development.

All the effort that went into basic skills development is wasted if there are no entry-level jobs available for graduates to earn experience in the field.

Businesses should be thinking laterally and examining the types of additional or new services that would be possible with access to young skilled resources willing to grow and learn as technology develops.

Accordingly, current training programmes also need to work harder to bridge the gap that exists due to a historic lack of access to infrastructure and technology, but this can be offset by having the chance to embed and shape the exact competencies required for each business. Long story short? We need to create jobs in order to stimulate the IT industry and at the same time, we also need to develop and nurture the skills required to meet that demand.

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