How Successful Organisations Are Bridging The Digital Skills Gap

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> "In the new digital economy, you don't say: 'I need a brilliant chief technical officer and I can't find one.' You say, 'I need 25 coders and I can't find them.'"
>
> Malcolm Gladwell, Canadian journalist, author, and public speaker, speaking at the 2017 BCX Disrupt Summit

Today's digital economy has brought with it the need for jobs and skills that didn't even exist a decade ago. Skills that have previously been applied to non-digital operations are not sufficient for today's real-time data scenarios enabled by personal analytics, information ecosystems, operational technology and the Internet-of-Things (IoT). As a result, newer digital skills are in short supply - and expensive - and many organisations are struggling with effective digital adoption because they expect their employees to adapt to these technical changes on their own. Over and above specific technical skills, we're rapidly shifting towards a digital economy in which every employee needs to be tech and data literate.

Digital skills that are lacking in the marketplace include coding, software development, data science, and data analysis. Analyst firm Gartner says that the need for data scientists is growing three times faster than the demand for business intelligence analysts and statisticians.

Despite having a considerable youthful workforce (of over 30 million people) South Africa's skills deficit is estimated to be over 50%.

According to Professor Riaan de Jongh, director of the Centre for Business Mathematics and Informatics (BMI) at North-West University (NWU): "We need to produce a lot more data scientists and analysts. For every 66 data science jobs available, we have 33 data scientists, so we need to put a high focus on producing more skilled analysts."

In an economy in which digital skills are lacking, what are companies doing to bridge the digital skills divide?

Responding To Change

The Fourth Industrial Revolution is here. Technology is moving forward at unprecedented speeds, and traditional practices are fast becoming outdated. A LinkedIn survey found that 29% of employees believe that their skills are already redundant or will become redundant in the next one to two years. To create a workforce able to bridge the digital skills gap, companies need to create progressive environments that welcome new technologies into the workforce.

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Shifting From The 'What' To The 'How'

According to Gartner, successful organisations will need to implement vastly different technologies and roles over the next five years. The company predicts that by 2021, 40% of a company's Information Technology (IT) employees will hold multiple roles, most of which will be business-related rather than technology-related. In other words, instead of focusing on the 'what' - education, technical knowledge, training - leaders need to shift focus to the 'how' - the behavioural competencies required for the job.

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Digital Skills Training

Effective digital skills training not only develops the employees themselves, but also promotes the digital transformation of the organisation as a whole. The first step in developing new skills is taking an accurate inventory of the current available capabilities of the workforce, identifying strengths, weaknesses, opportunities and threats. Instead of focusing on position-based development, organisations need to conduct a tactical skills gap analysis and take measures to improve these skills in-house.

Along with formal training and development, successful organisations encourage employees to find courses of interest, enabling and funding their personal skills development. Indeed, up-skilling is no longer a 'nice to have'; it has become a business priority.

It is only through implementing holistic, strategic training processes (catering to all types of employees and their various learning methods) that organisations can begin the journey towards true digital transformation.

Welcoming The New Employee - Artificial Intelligence (Ai)

AI and machine learning are set to disrupt traditional notions of work in unprecedented ways, freeing up human ingenuity for more creative and strategic pursuits. One of the most exciting features of AI is its ability to store the most accurate and effective version of a solution or process, which can be used to augment employees' skills and knowledge. The use of AI serves as a shortcut to fast-track learning, and is also a way of bridging digital skills gaps and circumventing resource scarcity.

BCX Bridging The Gap

BCX is taking proactive steps to fill some of South Africa's skills shortages with a number of programmes and partnerships aimed at developing ICT skills among the country's youth.

The Explore Data Academy

Funded by BCX, the Cape Town-based Explore Data Science Academy (EDSA) is South Africa's first fully-funded training institution for data science. It aims to train 300 data science interns within the next three years. The Academy is the brainchild of founders Shaun Dippnall, Dave Strugnell and Aidan Helmbold, all highly qualified data scientists with actuarial qualifications and experience in lecturing, research and consulting. EDSA provides a one-year Accredited Skills Programme, which is free, practical, has real-world relevance and provides work experience.

WeThinkCode

Another initiative funded by BCX is a multi-million educational partnership with WeThinkCode, a tuition-free programme designed to educate the next generation of software engineers in South Africa. With the support of BCX investment, WeThinkCode seeks to eliminate the skills shortage by developing 100 000 coders in Africa over the next ten years. The programme is free to all participants. BCX and other Telkom Group companies host 40 interns from WeThinkCode's innovative educational programme every year.

Arlene Mulder, Managing Director and co-founder of WeThinkCode, says: "The careers of the future in this country depend on technology skills and it is extremely important that businesses like BCX, a leader in digitalisation, work with us to allow our students every opportunity to develop their talents to create world-changing solutions for the digital era."

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