

# IT innovation opportunities for SA

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Opportunity for growth abounds if SA is prepared to change from being a labour-rich, mineral-wealth-providing country to a country that flourishes based on its ability to produce highly skilled members of a globally competent workforce. This according to leading IT businessman, Greg Vercellotti.

Two key areas in this economic development are financial services industry and the information technology (IT) arena.

However, antiquated university programmes, fewer students entering the maths and science stream at schools, fewer BSc students and a willingness of local employers to look internationally for skills means the IT industry in this country faces a crisis says Vercellotti, executive director at Dariel Solutions.

Dariel Solution is a software development company that focuses on developing bespoke business application software for businesses. And like most services businesses, the company is only as good as its people. However, according to Vercellotti, industry players feel that university graduates are entering the market lacking key skills.

“Our business is about people,” says Vercellotti. “Our business is built on great and passionate software specialists. However, in SA we have a shortage of people in our field. In order to continue to be successful we need to keep recruiting and hiring top people, but they’re not always available.”

Vercellotti says that while the global slowdown paradoxically made things a little easier, as there was no longer the capability to grow so quickly, the industry in SA is nevertheless “heading into a massive crisis”.

Fewer people entering into relevant degrees, coupled with outdated teaching methods means that there is not enough “new blood” coming into the industry and the people that are coming in aren’t au fait with the industry standard.

As a result, for those employers who are hiring locally there is a significant cost attached to hiring local graduates because they need to provide training for new graduates catch up to industry standards.

“This costs in two ways,” says Vercellotti. “You don’t earn revenue on these guys for six to 12 months, plus it takes time and investment from other people in the company to assist.

“It’s a big investment. But it does pay off in year two, where they add real value.”

Vercellotti says that rather than the industry moving faster than it would be possible for universities to keep up with, it is the universities that need to move with the times to produce the graduates the industry is looking for.

“I don’t think that technology is moving so quickly that universities can’t keep up,” said Vercellotti. “I think that what’s being taught is behind the curve. People aren’t learning [programming] languages that people are actually using.

“Why they aren’t teaching them modern languages is beyond me.

“My perception, and this is not based on empirical evidence, is that academic staff tend to be more academics than commercially-orientated guys. They are teaching what the theory says. I don’t think there’s a strong dialogue between the industry and the universities.”

This is something that needs to improve, Vercellotti says. By engaging with students IT companies have the opportunity to introduce the skills that new graduates need to succeed.

“We sponsored the honours programme at Wits [University]. We set the year-end project for the programme. We pushed them into the technologies that we know are required. The students said they had all the theory, but no idea how to apply it in the real world situations. They had good fundamentals, but they needed the actual skills.”

Vercellotti says the intervention was worth its weight in computer chips. “They [the honours students] blew our socks away.”

It is this type of dialogue between academia and the industry is exactly what is needed to improve SA's IT industry.

The lack of new talent is as a result of a number of factors, says Vercellotti.

"I think there is an element of the industry not being cool anymore," Vercellotti said, adding that another cause of low graduate numbers in the IT field is that not enough students in high schools are choosing to follow the maths and science stream.

"Too few guys entering the maths and science streams early on, particularly in poorer areas," said Vercellotti.

"One of the things we did, we took on four disadvantaged schools and put in computer labs and gave eight, nine, 10 year olds access to the Internet. People were queuing to use the PCs. We are hoping that by influencing kids' thinking at that level, they will enter the maths and science streams."

A lack of skills has meant that some local companies are sourcing IT talent offshore. It's a move that Vercellotti would like to discourage and ultimately feels will cause SA more harm than good.

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