

Preparing girls for a bright future in STEM

It is said that over 50% of the fastest-growing jobs are related to science, technology, engineering or maths, aka STEM. Not only that, but a million more STEM professionals will be required over the next decade than are currently being produced.



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If that isn't a reality check, this will be: the above pertains to the United States, not South Africa. Yes, the world's most powerful economy is panicking because it cannot maintain supply for the demand STEM roles are creating. Imagine where that leaves the rest of the world...

It's a reality Vari Mureriwa appreciates deeply, so much so that she splits time between her career as a director at an IT firm and P-STEM, South Africa's only non-governmental STEM advocacy group. Her views on the importance of STEM for South Africa's future are unshakable: "What we are finding with the growth and progressiveness of technology is that even professions that are not STEM professions on paper now require varying amount of STEM skills - particularly technology skills."

It's not just that the country faces unemployment as high as 40%, technology services are becoming the foundation for everything around us. A nation's future in the 21st century is joined to the hip by its ability to take the STEM reigns.

The challenge is helping people realise they shouldn't just consider STEM because they want to become a programmer or engineer: "We are moving away from thinking of careers in a very linear or isolated fashion. We know that everything now has some level of technology embedded in it. Therefore it is important and imperative that we get our learners and communities to have great skills, regardless of the chosen career path. Because an element of STEM will always be prevalent in whatever career path you choose over the next 10 to 15 years."

Opening STEM's doors

To help prepare for this future, P-STEM recently hosted an event at the SciBono Discovery Centre in Johannesburg on International Day of the Girl Child. 180 top female learners from schools in Soweto, Alexandra, Diepsloot and Atteridgeville, as well as 60 female students from universities and colleges around Gauteng, came together to meet with professional women. STEM is traditionally regarded as more male-orientated, so events such as this help break down boundaries and misconceptions.

Women are key to the future of strong technology societies. They not only represent half of the population, but also bring fresh and unique perspectives to competitive markets.

“I believe women in technology create a business advantage,” said Candice Adrian, Alliances Account Manager Dell EMC and one of the presenters at P-STEM's event. “We see an increase of females even in power and decision-making roles. So coming into an environment and engaging with customers, there are a lot of women at the top levels making these decisions. A female perspective sometimes is refreshing. We often look at issues holistically, whereas men tend to focus on one area. So there is a benefit in having both views on one team. I think it covers a lot more ground.”

Yet representation of women in STEM careers remain low. Vari explained that though attitudes are changing, many girls do not realise the possibilities of STEM careers or how to start. Even if they do, solid and practical advice is wanting. Thus allowing career professionals to tell their stories to female learners is invaluable.

“I want to share my story,” said Jeanette Marutle, technology consultant at Dell EMC, also presenting at the event. “How I got into the role and my journey since my Matric year, courses that I studied, what drove me to even finish my degree, and just my experience. It wasn't easy. I didn't just finish my tertiary education and jump straight into this company. You need to persevere.”

She added that she could have used the same insight when her career started a decade ago. Though workplaces have changed, the transformation has only begun. By lending their professional experiences to learners, people like Jeanette and Candice are helping improve South Africa's future.

STEM is for everyone

Both also shoot down the idea that STEM careers are only for maths and science boffins. Said Jeanette: “STEM is not just for engineers or programmers. It’s for everyone. You might not be an A student, but most of us weren’t anyway. Working hard and being passionate is key. There are multiple careers you can go into, as long as you have grades good enough to pursue the right courses.”

Candice agreed. She didn’t plan to study technology at all, instead eyeing a fine arts degree. But her parents weren’t keen, so she found a creative outlet studying web and graphic design. This opened doors in technology.

This is the reason why P-STEM’s International Day of the Girl event is so key, said Vari:

“The challenge in SA specifically is we have a lot of historically disadvantaged communities where we have learners who will be the first generation to go to university or to hold a corporate job. Partnerships with technology companies such as Dell EMC opens pathways to STEM for those learners. They get a chance to experience life in the corporate sphere. They get to mentored by people there. So they begin to understand how to shape their careers in order to access sustainable livelihoods, not just for them, but for the country as a whole.”

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