Tech sector gender parity - more tough questions needed

By Gcobisa Ntshona , issued by LexisNexis

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A quick glance at research on gender equality in the tech sector yields uncomfortable, but unsurprising results. According to the World Economic Forum's Global Gender Gap Report for 2021, women make up only 28% of graduates in engineering and 40% in computer science.

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In artificial intelligence, that figure drops to a dismal 22%. Although South Africa is lauded for its high percentage of women with skills in artificial intelligence, this score is still at 28%. A comparative success when you consider that countries like Germany and Brazil are only hitting the mid-teens.

But there is no room to be complacent. South Africa's future economic success depends on rapid technological advancement and to that end the country needs to accelerate entry into the space at a warp speed. If we do not do this, we lose whatever competitive edge we may have; and that has a knock-on effect on growth.

Let us look at the local disparity. Access to education and opportunities for women in tech are rare. STEM (science, technology, engineering, and mathematics) careers remain dominated by men as these jobs are perceived to be more 'masculine.' This means that, from as early as primary school, boys are both subtly and overtly encouraged to excel in STEM-related subjects, while girls are less likely to pursue subjects related to these fields. These subtle and not so subtle nudges often stem from societal biases which perceive women to be less intelligent and capable in STEM-related subjects.

University enrolment sees a continuation of this trend as less than a third of women in South Africa graduate to STEM-related careers. And it does not get any better in the working environment. Sexism in the workplace is far from new, but tech seems to be particularly saturated with misogyny. Being a woman in STEM is a daily struggle to prove your credentials to doubtful and condescending male peers.

So why is this a problem? Conversations around diversity in tech are buzzing with ideas relating to female empowerment, providing role models for young girls and recognising all of the essential traits women can bring to a male-dominated field. Research from PwC shows that gender diversity in the workplace correlates with economic growth and can help to alleviate poverty, increasing the income of low-income households by 2.9%. Employing more women at every level of employment has even yielded higher productivity and value creation. But this is not just about empathy in the boardroom and economic growth.

Representation matters for the future of the tech field itself. By excluding women from these spaces, spaces which are evolving and growing at a phenomenal pace, we run the risk of erasing their existence and lived experiences entirely. As the fourth industrial revolution forges on, our lives have become increasingly permeated, and defined by technology.

In our tech-dominated society, we tend to hold the belief that tech is fully automated, using unbiased algorithms to adapt to our needs and behaviour. However, AI is still plagued by human bias. The data used to develop these algorithms is still sourced from real people with pre-existing conceptions influenced by factors like race, class, and gender. It's been clear

for a while that tech developed and engineered solely by men relies on a male perspective – the consequences of this being that women's lived experiences are excluded and biases are learned and perpetuated in the machine learning process.

The only way to truly close the gap is to make the STEM space more accessible to women through shifts in gender biases and opportunities in education, funding, and training. From subtle discouragement in early education to limited opportunities and rampant sexism in the tech field, women are being left behind in the rush of digital innovation and incremental changes just will not do it.

It is also incumbent that companies look critically at their own gender make up in the tech space and talk more about changing recruitment strategies. This is a front and centre issue at LexisNexis South Africa and while we always look for the best person to fill a position, we do ask penetrating questions about gender choice for the job.

And if you need more convincing, consider just some of the female members of the tech hall of fame. Annie Easley was a NASA rocket scientist, and a trailblazer for gender and racial diversity in STEM. When hired, she was one of only four black employees Three decades later she had contributed to numerous programs as a computer-scientist and laid the foundations for space shuttle launches in the future. Radia Perlman was dubbed mother of the internet and her invention of the algorithm behind the Spanning Tree Protocol was instrumental in making today's internet possible. And way way back Hedy Lamarr was a self-taught inventor and film actor, who was awarded a patent in 1942 for her "secret communication system". This frequency hopping system eventually inspired Wi-Fi, GPS and Bluetooth technology commonly used today.

So, taking inspiration from these trailblazing women, how do we make a meaningful and sustainable call to action? Firstly, organisations must engage in hard, strategic soul-searching and commit to a more egalitarian approach all with an understanding that tech advancement of women is not confined to the upper echelons. Placement, training, and mentorship with a view to advancement must be implemented right across an organisation with an equitable allocation of funding and resources. Then, companies should try to adopt a tech-first mindset and ensure that access to technology is available to all. There are too many instances where there is an unconscious male bias in this respect. It would also be my considered view that companies in the tech space devote more time and funding to technology education particularly at the crucial foundation phase where young minds are adaptable and flexible when it comes to concept and problem solving.

ABOUT THE AUTHOR

Gcobisa Ntshona is the human resources director at LexisNexis South Africa. She joined the LexisNexis board in April 2018 as an executive director, and became a non-executive director for Reed Exhibitions in 2020. Making strategic and operational decisions for the company, ensuring that statutory obligations are met and managing the company's business are key roles for Gcobisa, who is based in Johannesburg but hails from the small town of Ngcobo in the Eastern Cape. A dynamic human resources professional, Gcobisa has delivered solid business results at leading companies. At LexisNexis South Africa she leads the Human Capital strategy, driving employee engagement and talent management, and establishing the company as an employer of choice as it continues its expansion strategy.

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