



# START TRAINING THE SKILLS OF THE FUTURE, NOW

The world is in the throes of the fourth industrial revolution (4IR), with drones, artificial intelligence, virtual reality, 3D printing, robotics and blockchain being used in various ways by numerous industries. Much has been written and said about the impact of these technologies and the changes they are leading, particularly with regards to jobs.

Some experts have predicted that as many as 47% of all jobs may be lost due to automation in the future, while other predictions are more cautious, suggesting a figure of only 9%. According to an Oxford University study, more than 700 occupations are at risk of being completely automated, with professions such as lawyers, paralegals, retail sales people and taxi drivers in the top 12.

Richard Firth, CEO of MIP Holdings, says these types of statistics and predictions are not only leading to unnecessary panic, they do not paint the whole picture. "Much like when PCs were first introduced, leading to changes in the skills companies required, the jobs conversation around 4IR should be about upskilling and creating digital skills rather than job losses," he says.

"We are already sitting with massive skills shortages in many sectors, and this is only going to get worse. Companies should see the changes being wrought by 4IR as an opportunity to re-skill and upskill their staff now. Not only will this prepare their workforce for the jobs they will be doing in the future, it will give them a competitive edge."

# 4IR

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He adds that a great deal of lip service is being given to creating 4IR-ready skills at a governmental level, but the reality is that the government will only be able to achieve its goals through external assistance or by engaging the private sector. "Government has committed to training one million young people in data science and related skills by 2030. How is that achievable when only 30% of matriculants sitting for maths exams are passing?"

Government's recently released review of results over the past 25 years paints an even more dismal picture. Though up from 18% in 1994, only 21.7% and 29.9% of learners passed mathematics and science, at 50% and above, respectively in 2018. The number of learners writing physical science and mathematics has been declining from 192 618 and 265 810 in 2016 to 172 319 and 233 858 in 2018, respectively.

Firth says if South Africa wants to take advantage of the opportunities presented by the 4IR, this is going to have to change. "Government is going to have to harness the potential of partnership at both national and international levels to change the status quo. At the national level, public-private partnerships can be a powerful model for financing infrastructure and skills development. Internationally, there are companies and governments that are building their own success stories, so we don't have to reinvent the wheel, just partner with them for best practice solutions."

While investing in science, technology, engineering and mathematics is critical, soft skills such as creativity, collaboration and time management cannot be ignored, Firth adds. "However, we are struggling with basic education, so the key to developing skills fit for the future remains in the hands of business. The world is moving towards a knowledge-based society, and it would be a missed opportunity if companies don't start investing in the skills they are going to need."



By Richard Firth  
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