**Age-old solution to capitalising on digital opportunities**

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**If predictions in last month’s ­**Tomorrow’s Digitally Enabled Workforce **report raised concerns about the impact on jobs of ­increasing digital disruption, tomorrow’s launch of the latest Australia’s Digital Pulse report delivers some ideas to help smooth the transition.**

Some analysts have suggested we’re in for a rocky road as we navigate the fourth industrial revolution, with automation, robotics and artificial intelligence set to ­replace more than 40 per cent of jobs in the next 20 years.

At the same time, our ability to fully capitalise on the possibilities of the digital age will depend on us having access to sufficient numbers of digitally skilled people ­capable of developing, implementing and maintaining the emerging systems and technologies. With Australia’s digital economy tipped to grow from $79 billion in 2014 to $139bn by 2020, demand for ICT workers is expected to significantly outstrip supply. But with technology ­increasingly becoming the critical factor driving innovation and economic growth — not just in Australia, but globally — we cannot afford to be complacent about ensuring access to this vital ­resource.

The 2016 Australia’s Digital Pulse report confirms that our ICT workforce will increase from 628,000 workers in 2015 to 695,000 workers in 2020, with this part of the economy growing at 2 per cent per annum compared to the 1.4 per cent experienced by the economy as a whole. It recommends that our best opportunities to fill the predicted skills gaps are through targeted retraining and diversity measures, since traditional education approaches alone, at least in the short to ­medium term, are destined to fall short. With many jobs predicted to be automated over the next two decades, our ability to ­selectively ­retrain these workers to perform ICT-related functions will be critical to our success. Furthermore, analysis of the ICT sector reveals key disparities between this job market and the broader workforce, particularly in relation to age and gender breakdowns.

According to the report, women currently account for only 28 per cent of the ICT workforce compared to 43 per cent across all professional industries. Encouraging more girls to study STEM subjects in schools, promoting ­inspiring female role models, and changing business practices to eliminate discriminatory ­approaches to recruiting, promoting and paying women are key long-term strategies to encourage more women into the ICT sector.

This becomes even more important when one considers new data from LinkedIn that reveals employers are demanding a wider range of general and soft skills in their ICT technical specialists. With a greater requirement for ­diversity of skills comes a matching need for a more diverse workforce. We must, as a profession, provide a more welcoming and ­inclusive job environment for women and be willing to recognise those non-technical skills that ­improve effectiveness and performance.

The importance of a broader range of skills and a commitment to professionalism was a key message in the IFIP IP3 Global Industry Council’s GIC 2020 Skills Assessment Report released last August.

Written by John Morton, former chief technology officer at SAS and Intel, with input from other GIC directors around the world, the report stated: “In addition to technical skill and knowledge, future ICT professionals will require a level of legal and commercial competence, underpinned by new standards and guidelines for technology delivery. This is needed to better understand the broadening range of environments in which they find themselves working and also to help them interpret project ­impact and do the right things.”

In addition to skills issues, stereotypical perceptions of older workers have led to clear evidence of age discrimination, with workers aged 55 or over accounting for just 11 per cent of ICT jobs compared to 15 per cent of the full job market. Mature workers currently occupy many senior and specialised roles, however a perception that older workers have a more limited capacity to learn new skills has led to ageist recruiting and retention practices.

With predicted shortages of up to 100,000 ICT jobs between now and 2020, our ability to address these inequities by increasing the numbers of women and older workers in the ICT sector could go a long way to meeting the shortfall and ensuring that Australia can fully leverage the opportunities of the digital economy.

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