

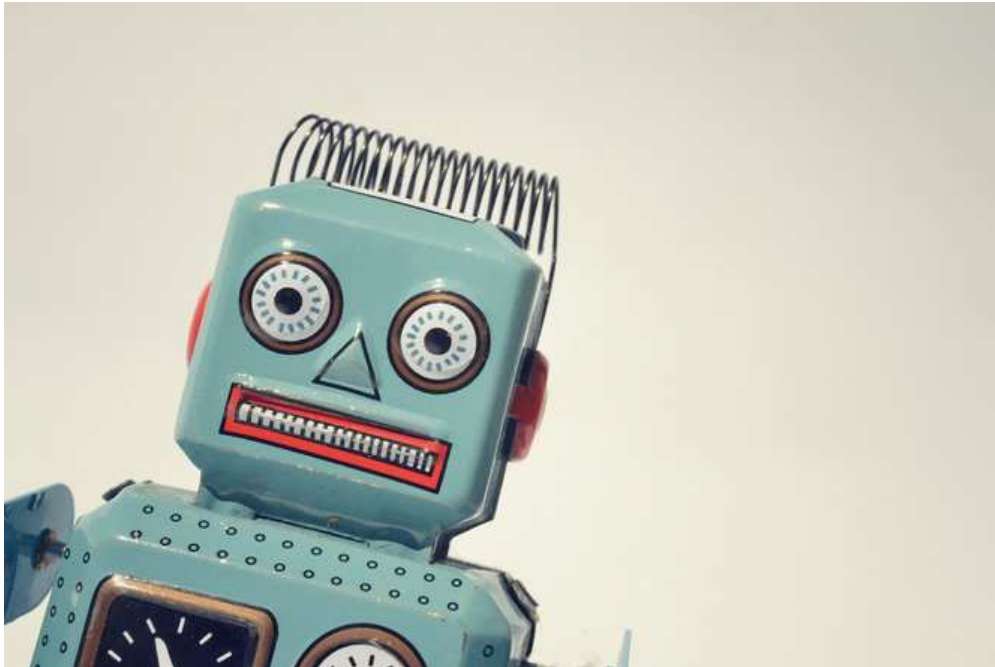
# THE CONVERSATION

## The robots are coming for your job! Why digital literacy is so important for the jobs of the future

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With automation a real threat to future jobs, school curricula have to keep up with the times.  
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In a **report** released this week, the Foundation for Young Australians (FYA) claims that up to 70% of young people are preparing for jobs that will no longer exist in the future. The report also raises concerns about decreasing entry-level occupations for school leavers and the impacts of automation.

In another recent report, the Committee for Economic Development of Australia **predicts** that:

*almost five million Australian jobs – around 40% of the workforce – face the high probability of being replaced by computers in the next 10 to 15 years.*

Some of the jobs **most at risk** of being automated include office administration staff, sales assistants, checkout operators, accounting clerks, personal assistants and secretaries.

The collapse of Australia's manufacturing industries, the end of the mining boom and the impact of disruptive technologies is having a significant impact on the employment prospects, not only for workers being laid off from car factories and mine sites, but also for the students who are in our schools, TAFE colleges and universities.

In response to the changing work demands, a report by PriceWaterhouseCoopers argues for a focus on developing Science, Technology, Engineering and Maths (STEM) as three-quarters of the fastest-growing jobs require these skills. The FYA report also makes the case for increased emphasis on developing digital literacy and the implementation of a digital technologies curriculum in primary school.

At the heart of addressing the demands of the new work order is literacy, which is becoming more high-stakes than ever before.

## Why literacy is high-stakes

Literacy is often thought of as something that happens in school, yet low levels of functional literacy of adults are also a major concern.

Low literacy levels have a significant impact on the health, education and employment opportunities of workers and are connected to lower salaries, lower employment rates, poor health and housing, crime and poverty.

The question of how workers will be able to navigate the changing employment landscape with low literacy levels is an important one. We also need to strengthen our training opportunities through TAFE and the Vocational Education and Training (VET) system for workers seeking to transition from manufacturing and unskilled labour to the new working economy.



With the mining boom slowing, Australia needs to focus on knowledge and technology. from [www.shutterstock.com](http://www.shutterstock.com)

At the same time, the question of how we are preparing students in our schools for the new work order also bears serious consideration.

## Is digital literacy the answer?

The increasing importance of digital literacy can no longer be overlooked, with the FYA report claiming that over 50% of Australian workers will need to:

*be able to use, configure or build digital systems in the next 2 – 3 years.*

Digital literacy includes skills such as coding, data synthesis and manipulation, as well as the design, use and management of computerised, digital and automated systems. Success in

the new work order requires these skills alongside lateral thinking, innovation, problem-solving, collaboration and entrepreneurship. Add these to the traditional literacy skills of reading and writing and you have a very complex picture of what literacy is.

As such, our understanding of what literacy is and how it should be measured needs to be expanded from a simple view of reading and writing to one that encompasses a range of skills.

We are in a transition phase from old manufacturing industries, mining and the service sector economy to one that is about digital disruption, renewables and socially driven enterprise. As such, we need an education system that is responsive to the major shifts in Australia's social, cultural and economic fabric.



Teaching coding is a start. from [www.shutterstock.com](http://www.shutterstock.com)

Teaching computer coding in schools is a **good start**, but is it enough to address the significant challenges of preparing young Australians for an uncertain world of work?

Perhaps a more thoughtful review of the curriculum is needed than the one recently conducted by Kevin Donnelly, who **argues** that:

*computers should not be used in the early years of primary school where more traditional teaching methods need to prevail.*

The current review of the curriculum has a **backward-looking** approach, with its recommendations to delay computing until Year 9 and to focus on basic literacy and numeracy in primary school. We need a school curriculum that has a clear focus on the future, not a “back-to-the-basics” 1950s approach to literacy learning.

A recent **report** from the UK House of Lords provides some useful clues for what they call “future-proofing” young people:

Digital literacy fosters creativity and innovation, underpinning job creation

Digital literacy complements traditional literacy and more effort is needed to lift outcomes across all domains

Digital literacy is important not only in schools but also in further education

Stronger links need to be made between industry and education providers

There needs to be universal access to digital technologies and for all people to have access to digital literacy learning opportunities.

We need to do all of these things, and the sooner the better, before the robots come for all our jobs.



Automation

Coding

Digital literacy