#codingcounts

A plan for coding and robotics in Queensland state schools

> By making innovation and knowledge-based industries a key focus of this government, we are intent on delivering a new era of opportunity for Queenslanders.
>
> *Annastacia Palaszczuk MP*
> *Premier and Minister for the Arts, Queensland*

Our world is changing more rapidly than at any other time in history with the influence of technology spreading to every aspect of our lives. Queensland is well placed to take the next leap to predict and respond to the global megatrends. This will keep us internationally competitive - influencing the way we live, the way we work and who we are.

Coding and robotics are important for every student to prepare them for the jobs of the future, where technology will be part of every workplace. But it's not just about the code. Learning coding engages students in developing their skills in critical thinking, creativity, collaboration and innovation.

Understanding coding is the new literacy and a "must have" for every student.

Our schools are partnering with industry and universities, generating real pathways for our students into the world of work and further study. Through these partnerships, our teachers are increasing their skills and our students are connecting coding and robotics to their future.

#codingcounts for Queensland

> Technology is touching every aspect of our lives - work and home. We must inspire students to be the designers of our digital future.
>
> *Kate Jones MP*
> *Minister for Education*

the world
of work is changing...

60% of new jobs require skills held by 20 per cent of the workforce[1]

1 in 2 of the world's entrepreneurs are between the ages of 25 and 44[2]

40% of Australian jobs are at risk of being automated in the next 10-15 years[3]

3 in 4 of the fastest growing occupations require science, technology, engineering and mathematics (STEM) related skills and knowledge[4]

Working Together

Through partnerships with industry, universities and the community:

- schools will engage in coding and robotics
- students will be ready for the jobs of the future.

Queensland Government

Advancing
education

Schools of
the future
#codingcounts

Next gen collaboration

We will extend partnerships with industry, universities and researchers to harness the creativity of the technology community and connect students and schools with cutting edge innovation.

The Premier's Creating Queensland's Future coding competition, in collaboration with industry, will present students with coding and robotics challenges, and showcase student innovation across the years of schooling.

Start-up the Queensland coding academy

The new Queensland Coding Academy is providing learning opportunities for students and teachers, creating virtual classrooms of coding excellence across the state, and supporting innovation in teaching coding and robotics.

The Young Scholars program will reach across the state, connecting students in regional and remote areas.

The Queensland Coding Academy will work with industry and universities to link students to the real world of work and research.

Fast-track Digital Technologies

Teachers will be fully supported through targeted professional development, practical teaching resources and online communities of excellence to support the new Australian Curriculum: Digital Technologies.

Our teaching workforce will have opportunities to engage in their own learning and personal growth with scholarships for teachers to specialise in the teaching of coding and robotics.

Incubate the entrepreneurs of tomorrow

The Entrepreneurs of Tomorrow initiative is funding opportunities for young Queensland entrepreneurs to pitch their ideas, work with industry to shape these ideas and develop business plans to solve real world challenges.

Expertise will be brought to state schools by partnering with universities to provide opportunities for specialists in robotics to engage with teachers and students, igniting the passion for innovation in our schools.

Robotics for the future

We will bring cutting edge robotics to Queensland state schools. Engaging with robotics will build Queensland students interest in coding and applying it to real world applications.

100%
of Queensland state schools will be teaching coding and robotics by 2020

100%
of Queensland state schools, individually or in clusters, will have active partnerships with industry or universities by 2020

1 Qualigence International, 2015. *Talent Acquisition Forecast 2015.* Available at: http://qualigence.com/wp-content/uploads/2015-forecast-wp1.pdf [Accessed 2015].
2 Australian Industry Group, 2013. *Lifting our Science, Technology, Engineering and Maths (STEM) Skills.* Available at: http://www.aigroup.com.au/portal/binary/com.epicentric.contentmanagement.servlet.ContentDeliveryServlet/LIVE_CONTENT/Publications/Reports/2013/Ai_Group_Skills_Survey_2012-STEM_FINAL_PRINTED.pdf [Accessed 2015].
3 CEDA, 2015. *Australia's future workforce?* Available at: http://adminpanel.ceda.com.au/FOLDERS/Service/Files/Documents/26792~Futureworkforce_June2015.pdf [Accessed 2015].
4 Becker, K & Park, K. 2011, 'Effects of integrative approaches among science, technology, engineering, and mathematics (STEM) subjects on students' learning: A preliminary meta-analysis', *Journal of STEM Education: Innovations and Research*, vol. 12, no. 5, pp. 23-37.

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