

IS THE FUTURE OF LEARNING IN LINE WITH THE FUTURE?







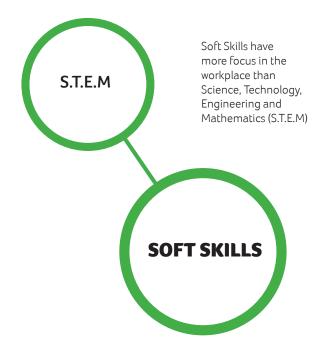
# IS THE FUTURE OF LEARNING IN LINE WITH THE FUTURE?

The workplace of the future will be unrecognisable from the working world of today. The challenges students will face in a world dominated by rapidly advancing technology will be wildly different from the ones faced by Baby Boomers, Gen X and even Millennials.

Addressing this future is in part already underway. The Australian Computing Academy provides teachers with the skills and resources needed to implement the Australian curriculum: Digital Technologies which teaches students in Year 1 to Year 8 theory and practical skills around subjects from digital systems to data collection, algorithms and implementation.

However, while students are being taught technology as a subject, little has been done to incorporate technology into schools to enhance overall learning and give students both the technical and social skills required for a successful career.

This ultimately raises the question: how can educators use technology in schools today to effectively prepare students for the technology driven job market of tomorrow?



# The future of job skills are soft skills

The current curriculum focuses on science, technology, engineering and mathematics (STEM) as core subjects to prepare students for the future workforce. While STEM skills are undoubtedly important, soft skills are also becoming highly sought after as businesses adopt online collaboration and management technology that empowers employees to work as part of a global team.

A position paper by the Organisation for Economic Cooperation and Development states:

"Students will need to apply their knowledge in unknown and evolving circumstances. For this, they will need a broad range of skills, including cognitive and meta-cognitive skills (e.g. critical thinking, creative thinking, learning to learn and self-regulation); social and emotional skills (e.g. empathy, self-efficacy and collaboration); and practical and physical skills (e.g. using new information and communication technology devices)."

Clearly, it is now crucial that students learn the technical and social skills required to fit into this new working environment. In a world where computers do everything, the ability to think creatively and communicate clearly as part of a team becomes increasingly valuable.

Amazon for example, places a high value on the ability to write and has implemented a "writing first" culture, recognising the benefits of developers being able to communicate complex ideas clearly in order to work effectively with less technical departments such as marketing and business development.

Soft skills, learned through social interaction, such as the 6 C's: critical thinking, collaboration, communication, connectivity, creativity and culture are already widely recognised as valuable skills for the 21st century workforce. However, they are still disregarded as core subjects in today's classrooms.

The Australian Curriculum, Assessment and Reporting Authority, in a 2013 curriculum outline stated, "The Melbourne Declaration on the Educational Goals for Young Australians (MCEETYA 2008) recognises that personal and social capability assists students to become successful learners, helping to improve their academic learning and enhancing their motivation to reach their full potential."

The outline however, then goes on to suggest, "some of the skills and practices implicit in the development of the capability may be most explicitly addressed in specific learning areas, such as Health and Physical Education."

What the outline reveals is that within the current curriculum, social skills are relegated to passive attributes learnt mainly through secondary subjects. As a result, there are many individuals and groups in Australia who are now pushing for more social skills to be introduced into school curriculums through entrepreneurship and art & design. These would be incorporated as core subjects, evolving the current STEM curriculum into a broader STEAMED curriculum, resulting in a broad mix of hard and soft skills forming the curriculum of the future.

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# The future of classrooms is digital

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### Learning will be more collaborative:

The introduction of online learning tools and tech in classrooms has the potential to make learning more interactive and spark a deeper interest in education. A wide array of learning apps, sharing platforms, educational games, organisational tools, eBooks and digital textbooks would provide students with a more collaborative way to learn than stating at textbook page.

The ability to collaborate with classmates and teachers online could mean the future of learning is no longer a teacher leading from the front of the classroom. Instead students work together on shared projects, honing teamwork, problem-solving and communication skills, encouraging the same collaborative working environment seen in today's innovative workplaces.

### Classrooms will be anywhere:

In the same way that working with colleagues in Mumbai from Sydney is almost as easy

today as sitting at the next desk, digital devices can also help to facilitate remote learning. With endless advancements in communication technology, geography will no longer pose a challenge for students and parents seeking out the best schools and the best teachers.

In 2016 more than six million students worldwide took at least one online course. In 2019 it is predicted that nearly half of all courses will be taught online. It is entirely possible that the future of primary and secondary education could take place online with global teachers educating global students.

### Learning will be immersive:

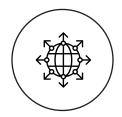
Immersive technology such as Acer's Mixed Reality Headset will take learning to a new level. Significantly more engaging than a textbook or video, mixed reality technology will allow students to experience science breakthrough, historical events and much



Immersive and Interactive



Access and Information



Anywhere and Everywhere



Memory and Retention

more through immersive content and virtual learning environments. For example, in the future students will able to experience, not just read about or watch the great pyramids of Egypt being built through virtual and augmented reality platforms.

### Learning will be a game:

Most games require a high level of strategy and communication in order to be successful. Introducing gamification into the classroom will help students to improve the cognitive reasoning, motor skills and teamwork needed to succeed in the workplace.

### Students will be more informed:

Technology gives students access to a world of information beyond the classroom. How to utilise this information is a skill they can learn in school. Educating students to accurately search for, examine and discern if a source is valid will put them in good stead in their careers, teaching them the practical and critical thinking skills needed in a data saturated future.

### Learning will empower students:

These days, children are more likely to source their information from videos, blogs, websites and a myriad of other online sources than from a library book. The same technologies can be used to allow them to deliver their work in a range of mediums that prepare them for the workforce. In the same way that technology is enhancing communication in the workplace, video presentations, not written book reports, could be the way of the future.

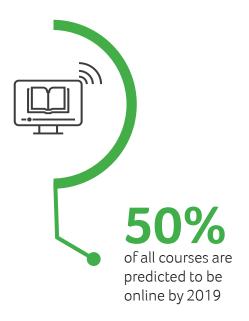
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### Teachers and students will work together:

Beyond providing useful learning tool for students, technology in classrooms also provide a valuable resource for teachers. Online polling, quizzes and other tools will help teachers to analyse areas where students are struggling and revise lessons to address these challenges. This would also allow teachers to guide and feedback on work during projects, rather than simply grading completed work, helping students to progress and learn more effectively.



### Students will remember more:

Technology has proven potential to increase the retention rate of information in students. A study by researchers at the Rochester Institute of Technology found that 90% of students stated that a technology-rich environment of laptops, collaborative software and projection screens helped them to retain information better than traditional lectures.



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# Tech and teachers together

In conclusion, technology will and should become an integral part of education. It will help teachers to enhance the learning experience by making education more engaging, more collaborative, more connected and more effective. More technology in schools is the answer to preparing students for the technology driven job market of the future.

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