

# Why schools must be ready for the AI revolution

by Brett Henebery 09 Oct 2019



Over the next decade, Artificial Intelligence (AI) is expected to transform almost every facet of modern business and contribute more than \$15 trillion to the global economy.

However, many leaders are still unsure how to deploy AI throughout their organisation – whether that be a school, university or an entirely different kind of business – to bring about positive change.

Despite being in its early stages, AI is beginning to transform the education landscape in some powerful ways.

In schools across Australia and the world, students and teachers are increasingly becoming more aware about how AI works, and how it can be used to help them create, collaborate and problem-solve.

Professor Martin Westwell, chief executive of SACE, South Australia's curriculum and assessment authority. Professor Westwell is recognised as a leading thinker, researcher and presenter in the science and neuroscience of learning.

### **AI will transform society**

Speaking at the ACEL National Conference 2019 last week, Professor Westwell said schools need to consider the transformative impact that AI will have on all aspects of life, just as the Internet had following its inception.

“When the Internet was in its early years, we knew it would change everything, and it did. The Internet changed how we live and work, it and how we think about art and culture,” Professor Westwell told The Educator.

“We’re at the same point now with AI.”

Professor Westwell said AI will change the learning entitlement because the knowledge and know-how that students rely on today might not be enough by the time AI ramps up in earnest.

“For example, we’re already seeing how IBM’s Watson computer is already better at diagnosing diseases than any doctor or any group of doctors,” he said.

“So, what does that mean for doctors? What does that mean for those students thinking about a career in law or medicine, or those highly technical skills where you need to know a lot. Well, AI is going to be very good at that.”

Professor Westwell said that while a human component will still exist, there won’t be so many jobs in those aforementioned fields

“When it comes to jobs like nursing, however, there will probably be more jobs, because people will need those technical and scientific skills alongside human skills like hearing what the patient is saying and reading between the lines. AI will probably not be so good at those skills – at least not at first,” he said.

### **AI supercharging student engagement**

At the University of NSW, AI is being used to improve the learning experience for engineering students.

Dr David Kellermann, a senior lecturer in UNSW’s school of mechanical and manufacturing engineering, developed Question bot – an AI infused chatbot that is

able to answer student queries. It uses machine learning to build a body of knowledge that students can tap for support 24×7.

Since its launch, the University has noticed a staggering 900% increase in student posts and engagement.

“It operates within the conversation between people, rather than the traditional human vs Chatbot experience. In a sense, the bot has a ‘seat at the table’,” Dr Kellermann told The Educator.

“On the next level, the bot leverages all the digital assets of the educational experience – we [as in my students and I] are co-creating and co-authoring conversations, video recordings, digital ink, calculations, lab results, and more.”

Dr Kellermann said the bot serves to surface those assets, and curate content from valuable conversations between groups of people in order to connect other people with like-minded queries.

“All the while it gathers data to help in generating original content from a different machine learning based system.”

### **PD help on the way for educators**

Travis Smith, Microsoft’s K-12 spokesperson and academic engagement lead, said that while AI a field that is quickly emerging across the global business landscape, an IT teacher cannot be expected to have the cutting-edge information about AI that a company like Microsoft has.

“The only way to really address that, and what we’ve done in the AI for Good Challenge, is to design the curriculum for the teachers,” Smith told The Educator.

“We created a set of assets – including Powerpoint presentations with modules – that are freely available for educators to download. Each module has embedded videos of experts and Education Changemakers talking about AI.”

Smith said teachers end up with a “ready to go classroom resource” that they can put up on the screen and learn alongside their students.

“They can be safe in knowing that the content is correct in terms of an IT company giving them that content, but also that it is digestible enough for the age group that participated in the recent Challenge,” he said.

“We also provide teachers with a PDF guide on how to implement the professional modules with suggested activities and discussions created by teachers both within the Microsoft and Education Changemakers teams. These allow teachers to be confident in knowing they can teach AI to their students.”