

## The new Australian Curriculum: pathway to ICT success

The article '[ICT is failing in school – here's why](#)' (The Conversation, 19 November) by Michael Phillips deserves a response, primarily to ensure readers are provided with some positive information about changes that have happened and others that are taking place.

The development of the Australian Curriculum has involved tens of thousands of teachers and members of the broader Australian community over several years. English, mathematics, science, history and geography curricula were approved by education ministers (the eight state and territory ministers, and federal minister) in 2010. Other learning areas and subjects including health and physical education, the arts, technologies, civics and citizenship, and economics and business were approved in September this year and are available for implementation.

The curriculum is available for everyone to read at [www.australiancurriculum.edu.au](http://www.australiancurriculum.edu.au)

It is too early to see the full benefits of the national curriculum, but it certainly provides a focus and impetus for a sustained discussion on what young people should learn at school and how best to help them learn it.

The Australian Curriculum explicitly addresses information communication technology (ICT) through the ICT general capability (one of seven capabilities that are included, where relevant, in the learning areas) and the digital technologies subject (located within the technologies learning area).

The ICT general capability assists students to become effective *users* of ICT. The digital technologies curriculum assists students to become confident *creators* of digital solutions. The curriculum requires students to learn about applying social and ethical protocols and practices when using ICT; and managing and operating ICT.

Some specific issues raised about ICT in the article by Michael Phillips warrant further discussion:

### 1. *Introduction of the curriculum*

States and territories, such as South Australia, Victoria and the ACT, have been trialling the digital technologies curriculum in 2015. These states are planning to implement it in 2016–17. Now that the Australian Curriculum has been fully endorsed, it is over to the individual states, territories and schooling authorities to determine the approach each of them will take to implementation.

### 2. *Support for teachers to implement the curriculum*

Teacher professional learning will be supported by states and territories, professional associations, industry and universities. Over the last two years, state professional associations have run workshops and conferences to support the curriculum implementation. The CSER Digital Technologies MOOC, a course by the University of Adelaide, has been offered three times this year to 4500 teachers, 1900 who are continuing to work together sharing lesson plans and resources. 500 teachers have participated in the Years 7–8 MOOC in its first offering. Although early, there are strong indicators that teachers are engaging with this approach to professional learning.

### *3. Choice of digital tools*

While the range of digital tools available to schools is extensive, the digital technologies curriculum has been written with a focus on key enduring concepts rather than specific technologies. The main focus is on computational thinking. Concentrating on a smaller range of technologies and programming languages should enable students to develop a depth of knowledge, understanding and skills that apply across evolving technologies. Many of the key concepts can also be addressed using unplugged strategies.

### *4. Currency of skills*

Twenty-first century skills are embedded in the Australian Curriculum learning areas and subjects through the seven general capabilities. The ICT general capability includes 'investigating, communicating and creating with ICT'.

The digital technologies curriculum incorporates skills and dispositions such as collaborating and managing drawn from the personal and social capability. Collaborating online in real time will increasingly be common practice. One of the reasons other countries are taking a direct interest in the Australian Curriculum is for the way 21<sup>st</sup> century capabilities are embedded from the first year of school rather than added on as extras. The introduction of digital technologies as a subject, also from the first year of school, is another initiative that is generating great interest from overseas.

In relation to what is referred to in the article as 'ACARA's testing', it is important to point out that the National Assessment Program – ICT Literacy test is updated every three years so that it reflects students' typical real-world use of ICT, including: working with tablets; using data generated by an app (simulating the use of cloud technology); using animation software to create, preview and upload; and collaborating with other students using simulated contexts to research and communicate findings.

Aside from these 21<sup>st</sup> century skills, we also need to be sure that our students know how to perform basic tasks such as to access reliable information, create and manage files, use software commands and features appropriately, and apply the conventions of specific communication modes.

In addition to our work on the Australian Curriculum and the National Assessment Program, ACARA has partnered with the NSW Department of Education to join a global project to investigate assessment of 21<sup>st</sup> century skills. The partnership and associated research have focused on developing innovative, high-quality assessment methods and tasks that elicit valid, reliable data on students' collaborative problem-solving skills. The longer term goal of the project is to develop valid and reliable online assessments to complement school-based assessments of students' collaborative problem-solving skills. It will also contribute to deeper understanding of how collaborative problem-solving may be addressed in online assessments. A trial of online items was recently held in 21 schools across five states and territories, involving more than 2000 Year 8 students.

ICT skills – familiarity with the use of digital devices as well as deeper, purposeful application of knowledge, understanding and skills – are a key feature of the Australian Curriculum. Following on from the recent endorsement of the curriculum by federal, state and territory education ministers, now it is the time to work together to ensure all young Australians, wherever they go to school, have an opportunity to improve their ICT skills.

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