Digital technology use in schools is simply not working

NATIONAL data released in November indicates that digital technology use in schools is not working, at least not in the way that we are led to believe it should be. More disturbingly, the latest data confirms an on-going trend that now sees nearly half of the nation’s secondary school students failing to meet minimum digital literacy standards.

More than 10,000 students were tested by ACARA in 2014 as part of the National Assessment Program for information and communication technology literacy. Results showing only 55 per cent of Year 6 students achieved expected standards while only 52 per cent of Year 10 students were deemed competent in completing “challenging but reasonable” tasks.

The $2.2 billion Digital Education Revolution promised to put computers in the hands of all secondary school students and to “contribute to a meaningful and sustained change to teaching and learning in Australian schools that will prepare students for further education, training and work in a digital world” (Australian National Audit Office, 2015) and this appears to be the case with 96 per cent of students able to access the internet at home or at school on a regular basis. Despite an increase in the prevalence of computing technology in schools and young people using digital technology as part of their out of school lives, basic digital skills appear to be decreasing. We are left asking why?

There are many possible answers. One of the factors that shapes the way in which teachers and students use digital technologies in school settings is the Australian Curriculum. In addition to descriptions of mathematics, English and science it also provides descriptions of learning areas and general capabilities including ICT capabilities. One of the challenges for “general capabilities” such as ICT is that all teachers in all subject areas are supposed to contribute to student knowledge and skill development.

While this is a laudable objective, it does mean that the responsibility for teaching digital literacy skills does not reside with an easily identifiable teacher or group of teachers, as is the case for maths, English or science. In contrast, “schools and teachers are responsible for the organisation of learning and they will choose contexts for learning and plan learning in ways that best meet their students’ needs and interests” (ACARA).

While it would be difficult to support policy that suggests uniform practice in all schools irrespective of geographic location, indigeneity and socio-economic background, the “messy” reality facing teachers and school leaders is not helped by Pollyanna-ish discussions about “challenging but reasonable” expectations. developed by researchers continuing to peddle an unhelpful “digital native” perspective. What is required is a thoughtful, mature and critical debate that recognises the challenges facing teachers in delivering knowledge and skills so often described as essentials for 21st century workers.

Unlike the NAPLAN tests which attract huge amounts of attention and debate, the NAP testing for ICT literacy remains remarkably unheralded. While it is important that we continue to examine and re-examine the ways in which literacy and numeracy are delivered to students in light of new data produced by NAPLAN, we also need to recognise that technological knowledge is not an “add-on” to be left to individual negotiations and arrangements in every school around the country. The most recent NAP data last November highlights the shortcomings of this approach and my research has revealed the complex, interdependent relationships between technological, pedagogical and content knowledge required by effective teachers.

This highly sophisticated understanding of the best way to introduce and use digital technologies as part of teaching and learning does not provide a simple ‘silicon bullet’ that will fix our current woes. In contrast to a debate that only focuses on the digital skills of young people, we would be better served by ongoing discussions that consider the current challenges in light of the technological, pedagogical and content knowledge teachers require to effectively work with contemporary technology.

If we were able to provide teachers with this kind of scaffolding, we would be much better placed to examine what is going on, or rather what is not going on, in terms of the ways in which digital technologies are being used in Australian schools.