In preparing for this presentation I came across an extraordinary finding – there already exists a cross-sectoral committee that includes the schools, VET and higher education sectors, and its purpose is to provide advice to Australian government education and training ministers on ‘the effective utilisation of information and communications technologies in Australian education and training.’ It is called the Australian Information and Communications Technology in Education Committee (AICTEC) and it has been in existence since 2001.

Why is it extraordinary? Because, first, apart from the Australian Qualifications Framework Council, it is, as far as I know, the only cross-sectoral body in Australia that advises government on education and training, and second, it is premised on the idea that there must be coherence in developing policy across the sectors – not just VET and higher education, but also schools. It actually seems to be addressing some difficult questions. It has, for example, a sub-committee that is working on ‘national interoperability and digital architecture’. Some of what it is doing is far too schools focused, but that is another story.

I am very impressed. Educational technologies cannot play an important role in supporting pathways and collaboration between the sectors unless and until we have a shared digital architecture and interoperability. This is a necessary, but not sufficient, requirement for the effective use of ICTs to support student learning and pathways across sectors. I am thinking here of the role of ICTs in broad terms. First, there is the potential of educational technologies as pedagogic tools that can enhance student learning. This tends to be the focus of those who work and research in this area, and it is important. It is also the most interesting.

Then there is the much more prosaic level which I find fascinating, but not many others do, and that is the capacity of student management systems to talk to each other across institutions and sectors so that they can manage student learning and share information about students and track their progress. We need the capacity to construct single enrolments that incorporate courses from both sectors so that students do not have to enrol in two separate institutions, pay two sets of fees, and manage two sets of timetabling requirements. We need to be able to have cross-sectoral enrolments, but still be able to report separately to government. Of course, it would help if the sectors had consistent requirements and processes. Those of us involved in pathways swoon over the idea of single student ID which students would use in every institution in which they enrol. This would provide the data we need to make sound education policy, particularly cross-sectoral policy. Finally, it would help if students who are enrolled in dual-sector awards were supported by one learning management system. Most of the dual-sector universities have solved, or at least potentially solved, this particular problem, so this particular issue is not so much different sectors as different institutions.

All of this seems pretty dull, and it is, but there have been some very public, spectacular and expensive failures to install systems that don’t even do half as much as what I’ve indicated is needed. When the RMIT system came crashing down in 2002 many of us in other institutions watched with horror because we were hoping...
that some of these fundamental problems would be resolved. They weren’t then, and haven’t been seven years later. National digital architecture and interoperability won’t solve these problems, but it will make it easier to do so, and it will put these issues on the agenda.

I’ve been asked to look at the emerging opportunities and issues for Australia from a national and state policy perspective if we are to realise the educational opportunities offered through emerging technologies and the NBN. I’d probably put the question another way – how can emerging technologies and the NBN help us improve educational opportunities and achieve national and state education policies? This is because educational technologies are a means to an end – and that end is a highly educated population which is skilled in the use of technology and able to accommodate rapid change in technology, work, and society. From your perspective, the sub-text of this is that all citizens will need to be literate, numerate, be able to use technology and participate in electronic communities of practice.

The specific policies that the government wants to achieve as milestones on the way to this goal are to increase the percentage of the population with degrees and high level VET qualifications, to increase participation in higher education by students from low socio-economic backgrounds, to increase participation in higher education by people from regional and remote areas, and to increase student articulation from one sector to another.

If we are to achieve these goals we will have to engage students from disadvantaged backgrounds in successful learning, and to do that, we need to understand how educational technologies can support students to learn. This is the first question, and only then can we ask other questions about the role of educational technologies in supporting pathways, and how they can support government objectives for social inclusion.

VET research on online learning tells us that we have to differentiate between student groups (Guthrie 2003). Online learning is often suitable for those who are already in work and are studying for a specific purpose. However, fully online learning is not suitable for many student groups including students from disadvantaged backgrounds, young students and apprentices (Peters and Lloyd 2003). Ros Brennan’s (2003: 6) research shows that online courses often assume that students are ‘motivated, literate, well organised and have high order cognitive skills.’ This may be not be the case, particularly for students who have not experienced prior success in learning, and those who have low literacy skills. She says that many online courses are based on an underlying cultural homogeneity that does not take into account ‘fundamental issues such as the cultural appropriateness of questioning, conversational conventions, language acuity’, and different attitudes towards interacting with those in authority. She says that: ‘In face-to-face classrooms, diversity is an asset. In an online environment it may be a distinct disadvantage’ (Brennan 2003: 6).

Students from disadvantaged backgrounds enjoy and benefit from direct classroom engagement – it provides them with an opportunity to socialise with other students and with teachers and this helps them to develop positive student identities. However, they also have a right to learn to use technologies and helping students to do so must be an important part of all formal learning. Blended learning environments that
include online, face-to-face, and print materials are most appropriate for many groups of students. Moreover, we must not make assumptions about students’ access to computers and the internet. While most people have computers and internet access at home there are still some who don’t (Owen and Moyle 2008), and their hardware or internet access may not be of a high quality.

These understandings have implications for the way that educational technologies can support increased participation of students in higher education from regional and remote areas, who are also often from a low SES background. Students must have access to some online learning from their home computer, but they also need access to high level and band-width hungry equipment if they are to benefit from the latest innovations, and they also need access to face-to-face learning environments. There are 39 public universities and they can’t be everywhere, but TAFE has a campus almost everywhere – and so universities and TAFEs will need to work together to provide students with access to online learning. A good example of a partnership is that between Riverina TAFE and Charles Sturt University who have established a university centre in the town of Griffith. This is the most concrete way in which educational technologies can support pathways between sectors.

Teachers need to be supported to develop the necessary skills to integrate online and blended learning as part of good pedagogic practice. This is a truism that has approached the status of a mantra, but it is often considered at too high level – that is, how to help teachers learn the most recent innovations. We will always have early adopters, and we need them. However, we also need to help teachers learn to use learning platforms such as Blackboard in the most rudimentary of ways – that is, how to place learning resources online, how to communicate with students, and how to use Blackboard to facilitate discussion between teachers and students, and between students. I’ve found one of the most helpful things to do is to post a bloggy type thing after every class, where I chat about what happened in class, the arguments we had, the areas where we were unclear, and that sort of thing. The feedback from students is that they love it – particularly those who cannot ever come to class and they say it is because it helps them to feel part of that community.

My experience as an academic developer when I was at Victoria University where part of my job was to teach teachers how to use WebCT is that using Blackboard or WebCT in this way would be a big step forward for many teachers. The problem is that for many, a prior issue would be how to use technologies such as PowerPoint. There are good and bad ways to use PowerPoint, and teaching teachers how to use it as part of good pedagogic practice is important, because once they can use it, they will want to post their presentations on Blackboard. And then we have got them. We have to demonstrate to teachers how online learning platforms can save them time, improve their communication with students, and improve student interaction and learning outcomes without them having to become tech-heads.

What does all this mean? It means that we need the cutting edge research on educational technologies as this is what makes the future possible. It will open new possibilities that we haven’t yet considered and will lead to thinking about how to make these technologies accessible. But it also means that we have to be concerned with embedding online support for learning as an intrinsic part of all teachers’ practices, and as an intrinsic part of all students’ learning experiences. This is an issue
about social justice as much as anything else. Students must be able to use these technologies if they are to participate as full, contributing citizens in their communities and in their workplaces. So, policy must be concerned with the mass roll online learning that embeds these basic features as well as imagining the future through supporting the cutting edge.

And, to return to my preoccupation, it means we also have to develop the enabling administrative technologies and management systems to support educational technologies on the scale that you envisage. There is no point having bells and whistles if they cannot be used.


