



## e-learning: The visible horizon

By Paul McKey

In July 2008 around 40 people representing the majority of tertiary institutions from both Australia and New Zealand convened in Melbourne for the day to chart the landscape of new technologies, for teaching, learning and creative expression in tertiary education, over the next five years.

The technologies selected as being most likely to be adopted in the tertiary sector are to be published in the form of a Horizon Report, as it is based upon time-to-adoption horizons, and was made available publicly in November 2008. The report was conceived and is managed by the New Media Consortium ( NMC - [www.nmc.org](http://www.nmc.org) ) a US based non-profit organisation dedicated to the exploration and use of new media and new technologies. The consortium has over 300 learning focussed organisations as members, several of which are in Australia. They have published similar reports in the USA and this report, titled Horizon.au, is the first to focus specifically on Australia and New Zealand.

Everyone in the room was invited based upon their experience and practice in the use of technology in teaching and learning in tertiary education. This included a broad array of

academics, technologists, new media developers, consultants and industry representatives. The group was to brainstorm, discuss and suggest the new media and technologies that we considered we would be using in Australia within three strict horizons - one, three and five years.

The process then became one of elimination and the more fanciful ideas quickly hit the floor. Further reduction came with the application of the strict caveat that all technologies for inclusion in the final list must have identifiable examples of their use - somewhere in the world. A series of voting rounds continually questioned and eliminated to hone the results to only practical and 'real' technologies.

Below are the two major technologies in each of the three horizons.

Time-to-Adoption Horizon: One Year or Less

- Virtual Worlds/Immersive Environments
- Cloud-Based Applications

Time-to-Adoption Horizon: Two to Three Years

- Geolocation
- Alternative Input Devices

Time-to-Adoption Horizon: Four to Five Years

- Deep Tagging
- Next-Generation Mobile

As expected considering technologies in isolation is nigh on impossible as so many factors impinge on the uptake, or not, of any new technology regardless of its compelling attributes. So much discussion was around both the key trends - social, cultural, behavioural - and the critical challenges - political, economic, skills and capability - that affect adoption and practice.

Two obvious trends stood out and these were the increase of mobilisation through portable devices and the corresponding increased connectivity that are driving down the costs of collaboration. The opportunities arising out of these trends for education and business are enormous.

Critical challenges for Australia were unfortunately far too easy to list. No prizes for guessing that poor quality broadband topped the class. Yet in education (and this would apply equally in corporate learning) other specific challenges such as a lack of teacher skills and outmoded assessment methods, combine to hold back the adoption of technology for teaching and learning. This in my view is a challenge of national proportion that is receiving scant attention.

Let's take a closer look at some of these technologies. In the one year or less category **Virtual Worlds** or **Immersive Environments** is the leading new technology that educators are intending to introduce into their online offerings. Second Life ([www.secondlife.com](http://www.secondlife.com)) dominates this sector and several years of unofficial usage in both universities and corporations have seen its popularity grow.

Correspondingly at the 'back-end' of university systems we'll see a move away from proprietary software applications sitting on campus servers as both faculty and students begin using **Cloud-based Applications**. Google Apps (<http://www.google.com/apps/>) and Zoho Office (<http://www.zoho.com/>) are just the tip of an iceberg in software development which is moving from the desktop to the rooftop.

In the two to three year horizon things gets a little fuzzier. **Geolocation**, the ability to tag images and maps, has been with us for some time

but is now finding widespread use as the systems become extremely reliable and ubiquitous. As we discover new uses for this enabling technology we will see it creep into many aspects of our lives.

Closely related to the above is a wave of mobile and handheld, **Alternative Input Devices**. No longer restricted to the arcane QWERTY keyboard, devices such as the GPS and accelerometer enabled iPhone with its touch screen interface will open up endless possibilities for device interaction and usage.

At five years fuzzy turns to vague. So much can change in that time. Yet the group were confident that **Deep Tagging** and **Next Generation Mobile** would be the buzz in learning in 2013.

Deep-tagging is simply the ability to attach a descriptive word or phrase to a piece of online content. Its prominence will rise in archiving the retrieval of the explosion of online content that we are currently experiencing. And as user-generated content increases so will this critical tool for making sense of it all.

Next-generation mobile or integrated ubiquitous technologies is the somewhat ethereal space we will find ourselves in even if only half of these technologies take off. Technology everywhere, talking to everything, is another way to describe it.

It comes as no surprise that this process tends to select enabling technologies such as mobility and communication capability and not discrete technologies such as faster hardware or specific applications. The final report should also show some of the candidate technologies which did not make the final list and I will leave that for you to follow up. They do however make an interesting read.

As for the acceptance and adoption within the given time horizons, and despite some great pioneering work, I feel both the education and corporate sectors in Australia need a shake up from their current chalk and talk focus to take full advantage of these technologies. The rest of the world however is not waiting.

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