Forget the magic powers, many just aren't switched on by technology

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In 2011 I began supervising Russell, a practitioner-researcher teacher working on his Masters by Research degree. Russell is a dedicated and passionate mature age entrant to teaching, with a background in IT, who has chosen to work in one of the most disadvantaged schools in the Perth metropolitan area. Russell was motivated to use technology in teaching and learning to address the specific needs that were apparent in his professional work. He was not using IT for the more common reasons – for example, he was not responding to bureaucratic pressure to do so, nor using IT for its own sake, as though it was some magical object. Moreover, Russell, with that IT background prior to teaching, has considerable technical skills, so many of the issues faced by other teachers were nonexistent for him.

Russell decided to use microblogging, specifically Edmodo.com as a tool to support the classroom teaching of mathematics with his students. Twitter and Facebook are examples of microblogging sites, which allow a user to post a range of materials with ease, available immediately and afterwards, to their readers. Edmodo replicates a social networking site, with a wall where messages can be posted, and various files can be uploaded. Russell uploads the interactive whiteboard notes created in class, homework exercises are posted, and he makes short videos of himself teaching new topics and concepts, so students can watch these prior to, or after, lessons. He uses these videos to encourage able students to come to class ‘ready to work’ and able to go on with material, rather than being held back by behavioural issues from other students, a phenomenon all too common in tough schools. As Russell’s students have embraced the use of microblogging, partly through his clever use of the tool (e.g. the only place to collect marks and results), their performance and engagement in classroom teaching has already increased in significant and noticeable ways – thus, his research thesis will potentially make an important contribution to this area.

Russell’s work inspired us both to use microblogging, as the vehicle for his research supervision, and from that, motivated me to embed this into my own university teaching. Like Russell, I wanted to use IT to support and enhance teaching and learning, and do not consider it a panacea. This is aligned to my professional fears that too many teachers and schools are being coerced or pressured into using IT which does not improve the quality...
of teaching and learning, and for which evidence of efficacy is distinctly hard to find. I remain utterly cynical where I hear of the latest iPad rollout to 4 year olds, with promises of advanced literacy and numeracy skills; again, without any evidence and defying all logic.

With different groups of students, I’ve piloted using Edmodo as a microblogging tool to encourage students to have both private blogs for reflective writing, and also communal spaces in which we can share information, post resources and make various electronic resources available. As much as I can see the potential, student engagement with microblogging has been disappointing. While I expected them to embrace the technology, it’s clear that many have lacked the skills and confidence to do so. The technical ability of supposed digital natives was clearly overestimated.

Several of my 18-20 year old students were unable to sign up for an Edmodo account, and needed an appointment to see me to follow the very rudimentary steps; several openly admitted having limited IT skills. While microblogging replicates the ‘look and feel’ of social networking sites (e.g. Facebook), there is a major difference between using such a tool for teaching and learning, rather than for social reasons. Every student who I attempted to engage with microblogging already has a Facebook account, and none describe themselves as less than regular users. While higher education providers might well be encouraging staff to make greater use of this technology, in many cases the students appear reluctant to embrace the technology for educational purposes.

Russell, in his school based trial, has identified that there seems to be a lack of willingness within the younger generation of secondary students to engage with learning management systems, and technological tools, in particular those not highly motivating and fun to use. If the technology is somewhat sterile, or less interactive than the student expects, their disengagement appears rapid. Whilst my university students represent a cross section of recent secondary school experience (e.g. some used a laptop for all their secondary years, some had limited access), Russell’s secondary group are provided with the government’s one-to-one laptop program, and have high levels of access and connectivity.

Ubiquitous access in Australian schools is not far away, and many organisations are seeking to fill the technology gaps that exist. There is no question that a wide range of web-based tools which are freely available or very inexpensive to purchase, can enhance teaching and learning both within the secondary classroom and also within higher education. However, these tools and technologies require staff professional development, and pilot projects to test for efficacy, value and use. There are staff in secondary schools and higher education, quite reasonably, wanting evidence that embedded IT does improve teaching and learning.

Moreover, we need to think more broadly about student engagement with technology than having simplistic ideas that if it has technology in it, that students will want to engage and also be capable of that engagement. For those of us embracing and using web-based tools, with genuine enthusiasm and interest, it’s clear that many students lack interest and engagement and, equally, at least some students lack the skills to be able to use the technology. There is a challenge to implement technology in effective and useful ways but to avoid simplistic generalisations.

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