Computers in Education - for the Future!

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The Australian Computers in Education Conference, ACEC 2012, in Perth offered a number of excellent keynote speakers as well as sessions on a huge variety of ways in which computers are transforming education – and some of the ways they aren’t. As a university science education academic, a lot of the conferences I attend are full of folk like me, from universities. The papers tend to be technical, and sometimes seem a fair distance from the classroom. I’m not sure of the actual numbers, but it seemed as though about half the people I talked to at this conference were from schools, either classroom teachers (the majority) or tech facilitator types. The papers were focused on real classroom teaching and learning issues, and very practical in focus while having appropriate theoretical underpinnings. I’d definitely recommend this conference for classroom teachers trying things with ICTs in their classrooms.

I have to make a small confession – while my research is in the field of educational technologies in science education, and this is the kind of conference I often attend, my motives for going to this particular one were mixed. I did my PhD at Curtin from 1995-97 and lived in Perth until 2001, so it was partly the chance to get back to Perth and visit old friends and old haunts. That was a heap of fun, and might have contributed to the buoyant mood I brought to the conference itself. The conference web site is still ‘live’, and includes all the papers (the conference publishes a refereed proceedings that will be available soon) as well as other materials like the PowerPoint presentations used by presenters, so it’s well worth checking out for those with an interest in this area: http://acec2012.acce.edu.au/ (click on the ‘Program’ link at the top of the page to find the links to the papers, abstracts and other material).

Many of the presentations were based in the Teaching Teachers for the Future (TTF) project, a federal government initiative to enhance the ICT skills of preservice teachers in Australia. The initiative included three phases – some focused on helping lecturers in universities include more ICTs in their own teacher education courses, others on creating resources to support beginning teachers in developing their Technological Pedagogical Content Knowledge (TPaCK) – knowledge of how to use ICTs to teach within the disciplines. Resources in science, maths, English and history were developed, and are available at http://www.ttf.edu.au/. I was a co-author, with Cliff Jackson of JCU, of the three science education packages.

I focused on the presentations that were related to science education, and enjoyed a number of talks on different ways in which preservice teachers were supported in developing their skills. Jennifer Masters and colleagues from La Trobe talked about preservice teachers working in a school with practicing teachers, facilitated by an ICT project officer, to collaboratively enhance all of the teachers’ skills in using ICT in the science classroom. The findings from this phase were then reflected in the design and teaching of on-campus teacher education courses. Helen Doyle and Chris Reading from the University of New England talked about moving preservice science teachers from positions of ‘resistance to technology’ to becoming advocates of ICTs in their own teaching and for colleagues. There were also a number of other TTF-focused presentations.

I presented a couple of papers – one of my own and one for my colleague Xinxin Fan who was in Beijing at the time. My paper and PowerPoint are available here: http://acec2012.acce.edu.au/effectiveness-scientific-visualizations-year-11-chemistry-and-physics-education. The focus was on reporting some research I’ve recently completed that found that, while students enjoy learning physics and chemistry with computer-based animations and simulations, the evidence really doesn’t support the claim that they learn better with these tools. As always, there’s still more research to do.

The keynote sessions were all interesting, although I found some to be more relevant to my interests than others. Milton Chen from the George Lucas Educational Foundation presented on ‘Six Leading Edges of Innovation In Our Schools’, and was fascinating – and an excellent, engaging speaker. My personal favourite was Neil Selwyn from the London Knowledge Lab, who presented ‘A Cautionary Tale From The UK’ about computers in schools, charting the political and policy context in Britain and the effects of new policies on what happens in classrooms. I’m making it sound a bit dry here, but I found it a very clear, engaging presentation – and a really ‘grown up’ talk, that had a storyline, and needed to be paid attention to all the way through to really understand the argument he was making.

As a tech conference, naturally there was a lively back channel on Twitter (hashtag #acec2012, still searchable), so those who tweet got live commentary from other attenders on the keynote talks – and plenty of other issues, including the saga of the missing chocolate. I’m a bit ambivalent about this – on one hand I like to share my reactions to talks, and read others, and people often share handy links and papers and other supporting (or challenging) material to complement the talk. On the other, if the talk isn’t going well, there can be a bit of a mob mentality, with lots of people lining up to dump scorn on the speaker… which isn’t really fair. I guess one upside, though, is that those who can’t make it to the conference can have a window on it through checking out the conference web site and the Twitter feed.

This is a conference that runs every second year, and the 2014 conference will be in Adelaide – if you can make it to that one, I can strongly recommend it. If not, then I guess we can hope that we might see it in Queensland in 2016.