Editorial

Dick Bacon

<u>R.Bacon@surrey.ac.uk</u>

Physical Sciences LTSN, United Kingdom

Ian Johnston
idj@physics.usyd.edu.au
UniServe Science, Australia

Ingemar Ingemarsson

Ingemar.Ingemarsson@hsv.se

CRHE, Sweden

Are the times changing back again?

Some of you will remember the 1992 movie *Bob Roberts*. It was the story of the rise to power of a corrupt, ultra-conservative (American) politician. And one of his most cunning campaign strategies was to use as his theme song, a clever backhander to Bob Dylan, 'The Times Are Changing Back Again'.

In science education circles in the late '80s and early '90s there was a general feeling that, because of the advent of the new Information Technologies, the times really were a changin'. It was commonplace to aver that IT would change, not only how science was taught, but also what science is taught. That hasn't happened - at least not yet. With a few notable exceptions, universities are now teaching courses very similar to what they taught then, but with the content brought up to date. Information Technology is still with us, but it is very much just part of the background. Just one aspect of the flexible way we teach science in this decade.

The same is true within the community of dedicated tertiary science teachers to which readers of journals like this belong. Much of the emphasis in teaching innovation has shifted from exploring what IT can do, to research into how students learn (from any and all teaching methods). In this issue of *CAL-laborate* for example, four of the six articles concern innovations which are software based: two are about evaluations of student learning, which depends at best peripherally on computers.

This trend must be seen as healthy. Our main concern must be how understanding is constructed inside our students' heads. Information technology is but a communication channel through which we try to intervene in this process. Nevertheless, I, for one, believe we should also continue to think about what is new in our profession. Things really are different now. Few of us would wish to revisit on our students the bad aspects of the education we ourselves experienced. If the times really are hanging back again, let's hope it's not that far back.