

Editorial

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The Science community has been using, or trying to use, computers within teaching for many years. There has never been much conformity in how this was to be achieved, and the wheel has been re-invented again and again, as enthusiast after enthusiast has 'done their bit' towards getting computers accepted.

Computers are now used by science undergraduates (as well as their peers in other disciplines) not necessarily to aid their learning, but rather as everyday tools for word processing (mostly), data processing (or at least presentation) and entertainment (in large quantities). They are also used to a considerable extent as mathematical modellers in computer laboratories and data loggers in experimental laboratories. Nevertheless the use of computer systems by science undergraduates to aid learning and understanding is still very limited.

When the *Windows* environments were first available, there was a time when it looked as though the homespun computer learning aid was a thing of the past. The preparation of programs with visual quality that matched that of the *Windows* system itself was quite definitely moving out of the enthusiastic academic's ability range. This had the potential advantage of having to rely on professionally produced materials, which would automatically result in better quality and less reliance on enthusiasts to implement the courses using the software. The consequences that some of us saw from this trend were the better embedding of good quality learning aids in courses, with resulting stability of use.

Whilst this has happened to some extent, there have been several counter influences. New development systems have appeared that can easily produce visually attractive materials. But even worse, there has been the steady development of the Web. While the Web has contributed many undoubted benefits to teachers - particularly in the management of their teaching - it has also contributed to the return of the enthusiast, with idiosyncratic teaching materials, often of poor pedagogic quality, that are promoted by those who should know better merely because they form part of the brave-new-World Wide Web. Couple this to the general trend of the modern world that presentation is far more important than quality of content, and it will become clear that the science student of tomorrow maybe in for a difficult time.

This newsletter is brought to you at a time of increasing change within the higher education sectors around the world. In the United Kingdom the CTI Centres, which spearheaded the move to improve teaching and learning by informing and encouraging academics to question their materials and methodologies and to introduce new technology where appropriate, have been replaced by Learning and Teaching Support Network Centres (LTSNs) which have a broader set of guidelines. These guidelines include greater considerations on the pedagogical issues of teaching and learning and as such are more in alignment with the role of UniServe Science in Australia. We hope these changes will to some degree counter the trends we described above, and give the science student of tomorrow a slightly easier time.