The use of computers in education is certainly an area of very rapid growth. This is true in both the research being undertaken and also in the establishment of virtual organisations offering on-line education. In part, this trend has been fuelled by the explosive growth in the use of the Internet, both as an information medium and a marketing tool. Moreover, many believe the growth we have seen to date in this area to be just the tip of the iceberg.

Given this background and the fact that a great deal of my own work is concerned with the research and commercial aspects of computer-based educational technology, you can imagine my enthusiasm in being offered the book "Computers as Tutors" by Frederick Bennett to review. Unfortunately that enthusiasm waned, as in chapter after chapter I was subjected to an almost evangelical and very long-winded case in the support of the title.

To give you some background on the author, Dr Bennett has taught in both colleges and universities, and has a doctoral degree in psychology, in addition to experience as a professional computer programmer. From this background I was anticipating a balanced argument supporting the thesis that computers should be used as tutors, moreover I was expecting that argument to be backed up with both the technical as well as the social issues. Unfortunately this was not the case, and because of it, I am avoiding my normal practice of concluding my review with a summary of the book and the potential readership. In this case I find that I must start with a summary, simply because the book itself is so one sided.

I must emphasise that it is not the case that I am against this thesis, it is just that I do not believe the cause is furthered by such a one-sided argument as is presented in this book. Such preaching I can find in any religious gathering.

Thus if you are looking for a balanced book, which presents the arguments for and against the case for computers as tutors, then this is not the book for you. It provides a very one sided view, listing the advantages without at all identifying any of the areas where we, as practitioners in this field, know there are pitfalls and obstacles. Indeed the only counter argument in the book comes in the last chapter, where Dr Bennett answers some of the classical and rather banal criticisms of using computers in education.

Also, if you are looking for a book which gives you an insight into the various technologies and tools available for presenting and assessing educational material, then again this is not the book for you. It does not answer the question of how this can be achieved at all. We are told, time and time again, that programmers working alongside the best educational minds available will solve these problems.

Instead, what we are presented with is a long-winded and rather hand-waving treatise on why computers can become better tutors than those that students currently find in their classrooms, in the flesh. In part, this book is an indictment of the current school system in the USA and many of the examples given to justify the case are based on K12 school experiments undertaken in the USA. Indeed, as someone who has not experienced the social deprivations of urban America, I found this aspect of the book unnecessarily parochial.
The book covers a number of issues from the advantages of using computers in education through to how it will all work in the future with new teachers and new schools! Indeed we are even treated to a-day-in the-life of one of these new brand of educators. What surprised me was the similarity of the activities in my own current daily routines with this vision offered by Dr Bennett. Thus, perhaps we are already closer to the goals of this dissertation, than Dr. Bennett is currently aware of.

In terms of the problems that we face in this endeavour, I find that the rather short chapter on why computers are ineffective today as being totally inadequate. Again it focuses on the social issues that are pertinent to the USA schooling sector. Perhaps it is just that I work in a university environment and that I am already using some of the technology that Dr Bennett fails to categorise, that I finds this book falls so far short of what I expected. In particular I found virtually nothing on the various problems that we do face.

Let us just take a simple example. In one chapter, Dr Bennett offers computers as a solution to higher level learning. By this he means that computers will not only be able to present and assess educational material and its absorption by the student, but also that the computer will be able to analyse and compensate for the difficulties a student has in the comprehension of this material. In other words, to be able to provide a meta-understanding of the processes that the student is undergoing, in order to effectively tutor that student. Examples are given to back this up but unfortunately the examples are in the area of mathematics and in particular algebraic manipulation. It is well known that mathematics is a subject area that is absolutely deterministic. In mathematics, solutions are either right or wrong, and if wrong, it is a tractable problem to analyse solutions and provide suggestions for suggested remedial work.

In the book these examples are casually extended across the range of disciplines facing students in education. This is done without reference to the enormous amount of research required in order for computers to be able to capture, analyse and synthesise the more intangible qualities that education instils into our children. Natural language comprehension, aesthetics and design present major challenges to the computer-based educationalists.

Again my arguments are not meant to imply that these problems can not be solved over the time-scales that Dr Bennett projects. It is just that as an interested party, reading Dr. Bennett’s book, I want to know what are the problems that we face in this endeavour and who it is that I should be collaborating with in order to help solve those problems.