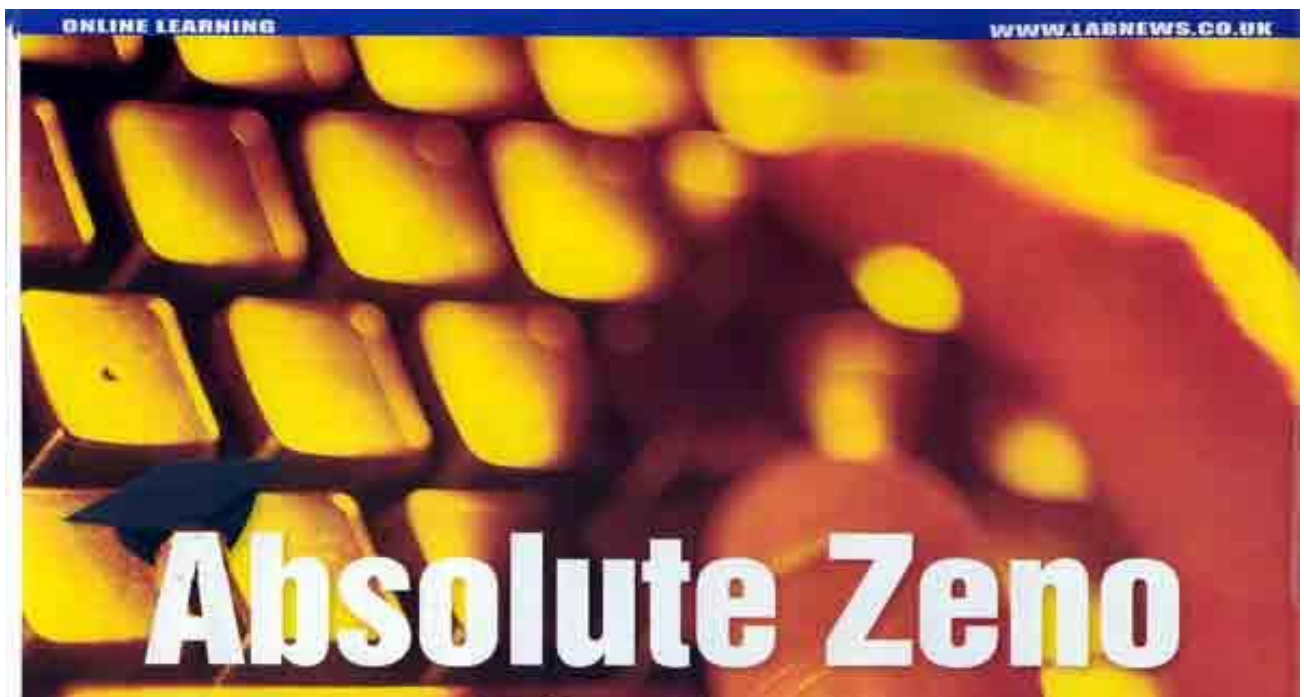




Leicester University have appointed scientist and author Brian J Ford a Visiting Professor in the Beyond Distance Research Alliance at the Department of E-learning. Here Brian outlines where e-learning stands, and what the future offers.

Remember the paradox of Zeno? He posed an intriguing concept. If each step taken is only half the size of the one before, you'll never reach your destination. It's all good, mind-teasing stuff for youngsters.

Here's an even greater one. Each step in documentation access speeds up our progress, until it now moves at near-instantaneous speeds. How long would it have taken me to get to the university library on horseback 500 years ago, and wait for a scribe to produce a copy of a book that I needed urgently to study? That'd be a month at least.

The advent of printing brought that down to the travelling time alone, and mechanised transportation was to reduce the time further still. It might all have been done few hours.

The Internet, however, is the ultimate miracle. A mouse click takes you to the library; you can search not only for titles, but for book content. Google, Yahoo and the rest are digitising books everywhere. Now, if you need to access comments inside a book from the other side of the world, we are down to milliseconds. The fact you can search instantly for any term - in any book - is something that you could not do with the printed word. Digitization alone has made that possible.

At the same time it has become so cheap; falling (at present-day values) from thousands of pounds to produce a book 500 years ago, that might take hours to search, down to virtually nothing to find text hidden somewhere in a book on the other side of the world today.

It occurred to me that we could show this revolution in a fact box with this article. It would make for an eye-catching extra feature, I thought, but it didn't work. The screen soon ran out of noughts, and I am not too sure what comes after femto (1).

When the Open University began, its first Vice-Chancellor, Walter Perry, was elated. Walter later told me that it was his dream come true. People who didn't have time to get to a University, weren't scholastically qualified, or simply couldn't travel anyway, had the University come to them. Course material arrived in brown paper envelopes. Lectures were on television, at ungodly hours, and could eventually be copied and digested when the student wished. What an extraordinary revolution that was. University learning could happen at home, whenever the student wanted it.

During my Fellowship at the OU, the concept of distance learning was becoming increasingly fashionable. Rather than the mail, the Internet was being seen as a key. The whole idea of e-learning became a hot topic and was initially promoted as the best way to make vast profits from a gullible clientele. And it was all founded on a fundamental mistake: people simply transferred conventional (and by that time tired) methods of teaching to the web. It was didactic pedagogy-on-line. That was doomed to fail.

Where new material was produced, it was usually stodgy and terse; illogical and often wrong. E-learning is something new. It demands fresh attitudes and a radical reappraisal of our own orthodoxies. As my Head of Department at Leicester, Prof Gilly Salmon, has wisely said in a wide-ranging and important paper (2), it is 'a most demanding endeavour that will not be achieved by learning technologies alone'. She rightly regards much current policy as a 'banal and obvious' attempt to thrust new technology at an old idea. The Virtual Learning Environment is the current buzz-word for e-learning, but - as Gilly stresses - no VLE is enough on its own.

Whatever happens, e-learning it is not going to replace academia. They said that radio would replace newspapers, television would kill the cinema, personal hovercraft would banish bikes. The Internet is simply a means of high-speed access. It's the nearest we can get to 'beam me up, Scotty' for words, ideas and images. Academia is no more threatened by e-learning than airlines were by computerised booking.

Teaching staff tend not to like changes in pedagogy, and are wary of having to learn new procedures and master modern software. Sometimes they are right. Many establishments are foisting unnecessary and impractical bureaucracies on hapless lecturers as part of a management structure that is designed to keep them in their place (3). That's management for you.

Done properly, e-learning must involve staff at every level, and seek to excite them and encourage them by solving their problems rather than by adding to them. Life must become more fun, not less. Anyone who tells you to simply transfer old ideas to the web isn't being sensible. The web just offers access at speed. Just because something is a book, doesn't make it a good read. Simply because a course is immediately available on the Internet does not make it wiser in its inception, or easier to digest.

Virtually every university and college in the world now has a web presence that involves distance learning, or is setting one up. You can now read course material from great universities all over the world. What has been missing?

In a word, research. There has been far too little emphasis of the quality of content and how we must adapt its applicability for the web. Books, lectures and presentations on the web are fine, but the internet can offer entirely new ways to pass on concepts and information, and too little research has been done in that field. If you doubt the need for radical change then look at a lecture on line. With resolution and frame rates lower than they had in films from 1899, these juddering digitised images and squishy compressed soundtracks do less for teaching, more for insomnia.

Software such as Microsoft PowerPoint has changed our presentations. They began as surrogate slide-shows, but now - with animations and transitions, sound effects and video inserts - PowerPoint and Adobe Flash can offer a multimedia presentation on any topic you like. We can see things differently, gain innovative insights, and acquire newer ideas quicker than ever.

An admission: I can hardly write. My work has been done in a keyboard all my adult life, and my handwritten notes are illegible. Even to me. The computer allows fast, digital, readable, multi-format compatible documentation for us all, and digitizing data will make everything available everywhere to everyone. But the novelty for that, as for LED Christmas lights, will soon wear off. It's a stage through which we are passing.

We must now research the new technologies that are becoming available, and look again at innovative uses for old ones. Distance learning - as an informative article from Skillgate emphasised in these columns last August (4) - can keep us all up-to-date with new techniques and technologies. For more complex or academic areas, we may need distance learning combined with residential schools or occasional group attendance, the 'blended' or 'hybrid' learning methodologies.

Only research can show us in what areas we need to move, and how progress should proceed. What works best? Which orthodoxies need to be improved, or abandoned? How can we best serve students, and their teachers? This is the research that's being launched at Leicester.

Teaching is entering an astonishing era that links learning and scholarship with open access in the blink of an eye. Philosophy has kept Zeno current for two thousand years. Digitization will make every idea in every book instantly available to everyone. This is the biggest step that teaching is ever likely to take.

REFERENCES

1) I do know really. It's atto, zepto and zocto . . . but all that rather interrupts the flow.

2) Salmon, GK (2005) Flying not Flapping: a strategic framework for e-learning and pedagogical innovation in higher education institutions. *ALT-J Research in Learning Technology*, **13** (3): 201-218, September. See also the same author's book (2004) *E-moderating: the Key to Teaching and Learning Online* (2nd edn), London: Taylor & Francis.

3) Much of this was predicted in Ford's book (1982) *Cult of the Expert*, London: Hamish Hamilton. Copies are available through www.rothayhouse.co.uk

4) Page, Ian (2005) Could e-learning keep you in the loop? *Laboratory News*: 16-17, August.