

PAUL REDMOND explains how the technology revolution is changing higher education and how students are learning in a Virtual Learning Environment with the use of computers and the internet



THE UNIVERSITY OF MANCHESTER

# Welcome to the virtual classroom

Imagine you're going to a party. On the way, you pull out some loose change and buy a little birthday card that plays "Happy Birthday" when opened. After the party, someone casually drops the card in the bin, throwing away more computing power than existed in the entire world before 1950." (Price Pritchett).

Welcome to the revolution! Before our very eyes, digitization, globalization

and deregulation are radically redistributing the balance of power between people and institutions. As Ridderstrale and Nordstrom argue in "Funky Business" the availability and affordability of new technology means that more people are accessing more markets than ever before. And if you are preparing to enter university you are going to find yourself at the heart of this revolution.

## The new IT girls (and boys)

“Technology” means more than nuts-and-bolts, and bits and bytes. The term applies to a wide range of applications, functions and gadgets. Gone are the days when “technology” was the preserve of white-coated rocket scientists.

Technology today is mainstream – the ultimate in mass participation.

Technology, believe it or not, is cool.

Who did Jerry Hall date after splitting up with Mick Jagger? A rock star? An actor? No – a bearded computer geek called Paul Allen, one of the co-founders of Microsoft. More proof that the Stone Age is dead. Welcome to the Age of the Nerd.

## When more means less

There are two reasons why the nerds are winning. First, with the capacity of computers doubling every 18 months, the power of technology is expanding at mind-blowing speeds. Few aspects of life have been left unaffected. Take game technology, for example. According to its designers, the Cell processor, which will drive Sony’s PlayStation 3, will run 10-times faster than current PC chips. Sony plans to bring PS3 out next year. Second, as technology spreads, the cost of manufacturing it falls. To stay competitive, suppliers pass the savings on to consumers, who pay less for more. Computing power is now a staggering 8,000 times less expensive than it was 30 years ago. Because of this, new products

**‘Few sectors have been so comprehensively affected by the technology revolution as higher education’**

can be launched literally overnight.

Hewlett Packard makes 90 per cent of its profits from products that did not exist 12 months ago. Disney brings out five new products every single day. In the world of advanced technology, standing still isn’t an option. It’s a suicide note.

## Scholars and surfers

Few sectors have been so comprehensively affected by the technology revolution as higher education. Until the early 1990s, the experience of being a student had remained much the same for the past 500 years. Then along came the internet. Modern technology is now not just revolutionising universities, but gradually it is changing what it means to be a student.

## Citizens of cyberspace

Though few prospectuses mention it, there is now another way to experience university – apart from the physical



NEWCASTLE UNIVERSITY

reality of attending lectures and going to the students’ union. It’s called cyberspace, and it’s where more and more students now spend their time. Universities are all about having access to cutting-edge knowledge and groundbreaking research. The internet offers all this – at your fingertips. And while the physical aspect of higher education still forms an integral part of the overall experience of being a student, it’s no longer the full story.

Below are five ways that students, regardless of their academic subject, now engage with cyberspace as part of their studies.

### 1. Virtual Learning Environments (VLE)

Once, if you wanted to discover what was happening on your course, you found a notice board. Today, you log on to your virtual learning environment. A virtual learning environment (VLE) is a set of teaching and learning tools designed to enhance students’ learning by using

computers and the internet. Although VLEs differ between institutions – even between courses – in general terms, most include the facility to send and receive emails, access parts of the curriculum (such as lecture notes, handouts, etc.) on-line tutor support, and links to course materials and resources.

To access their VLE, students receive a user ID - usually during their induction. In many universities, accessing the VLE is a daily requirement. The VLE is the course notice board – the place in cyberspace where students and tutors go to swap ideas, hold on-line seminars, store notes, hand in assignments, receive feedback, and record progress.

### 2. Email communications

Email is rapidly establishing itself as the primary mode of communication between universities and their students. So effective and reliable has email become that some are even speculating that the days of the glossy recruitment prospectus are limited. Most universities

provide new students with their own registered email address. Through this, information about course dates, examinations, fees and day-to-day information is communicated.

### 3. Text messaging

According to figures released by the Mobile Data Association, on 19 August 2004 a record-breaking 81 million text messages were sent out across the UK. Why? Because this was the date that A-level results were released. This figure was 21 per cent higher than that recorded during the previous year, illustrating the new craze for text messaging – particularly among young people.

Universities are rapidly getting wise to the power of text messaging and several have recently acquired software enabling them to text their students at key times during the year.

### 4. Virtual libraries

University libraries still form an integral part of being a student. However, with the onset of the internet, more and more information is being stored on-line. The big advantage of this is that students can now access resources from around the world via on-line journals, newspapers, databases, magazines and books. Using access management systems (AMS) – such as “Athens” (see: [www.athens.ac.uk](http://www.athens.ac.uk)) students can source more information than any library in the world could ever hold. Again, all they need is a PC and modem.

Virtual libraries have advantages and disadvantages. On the plus side, gone are the days when you would go to a library only to be told the book that you're after has been borrowed by someone else. On the negative side, however, who wants to search through 11,000 articles when writing an assignment? What is needed, to make the best use of on-line libraries, are different types of research skills – skills now taught in most universities.

### 5. Online job applications

A recent survey by a national newspaper found that the majority of Britain's top 100 firms now require students to apply for jobs using the internet. Online recruitment has many advantages for employers. Not only does it speed up the selection process (something that both students and employers want), if used properly it can also reduce the risk of bias by attracting a wider range of applicants. Chances are, by the time you come to graduate, CVs may have become a thing of the past.



COVENTRY UNIVERSITY

### Sarah's Diary

Sarah is a first-year (Level C) student reading biology and sports science. Here, she reflects on her use of “Learnwise” – her course VLE – over the course of a typical week.

#### Monday:

Logged on to Learnwise to check emails; several from tutor and course administrator reminding me about the closing date for Assignment 3 (5pm this Friday!)

#### Tuesday:

Putting final touches to Assignment 3; made use of online journals. Consulted study skills package on referencing techniques. Downloaded instructions on how to submit the assignment.

#### Wednesday:

Today's seminar involved taking part in an online seminar with students from other universities. Once you log in, you can see straight away who is on-line and, depending on what you're interested in,

have your say on different topics which people “post” on to the discussion site. Nice to know I wasn't the only one finding stats difficult!

#### Thursday:

Attended a lecture as part of PDP (Personal and Professional Planning) – a module that all first years take. As part of this, you have to download the lecture notes from Learnwise and print them off for your portfolio. Also, as part of the assignment, you are asked to submit to your tutor the notes you made on the PDP lecture.

#### Friday:

At last! Submit Assignment 3 via Learnwise. Receive a “bounce-back” email confirming that my tutor has received it. Breathe a massive sigh of relief. Use the online discussion group to share my feelings online with others. Unfortunately, can't help noticing the assignment guidelines for Assignment 4 – which has to be in before the end of the month!