

Megatrends in e-learning provision

Staffordshire University

Context

Staffordshire University has a long history of providing vocational courses to its local communities as well as to regional, national and international students. The University was established from the Staffordshire Polytechnic in September 1992 which, itself, had been formed from the merger of its well-established colleges: the Staffordshire College of Technology in Stafford; the Stoke-on-Trent College of Art; and the North Staffordshire College of Technology based in Stoke. The original name at merger was North Staffordshire Polytechnic which became Staffordshire Polytechnic in September 1988.

The major work of the University has been concentrated on the Stoke and Stafford campuses until 1995 when the Shropshire and Staffordshire College of Nursing and Midwifery was integrated into the University, with bases at Stafford, Shrewsbury, Telford and Oswestry. In 1998, in partnership with Tamworth and Lichfield College, the University opened a newly built campus at Lichfield. The University has always had a strong working relationship with its local colleges in Staffordshire and Shropshire and in 2000 formed the Staffordshire University Regional Federation (SURF). This was one of the first consortiums of its kind in the UK and provides Higher Education courses at 9 Colleges in Staffordshire and 2 Colleges in Shropshire with a number of progression routes through to the University.

Staffordshire University has a long history of e-learning dating back to 1997. Today it has 700 course modules online on its Blackboard VLE (Virtual Learning Environment) or Learning Management System (LMS). These courses are either e-learning for blended learning or e-learning for work-based learning or pure distance education. The university has today between 5000 and 6000 elearning students of whom 600-800 are pure distance education students. 18% of total enrolments are in the SURF colleges and the vast bulk of this is off-campus with attendance restricted to one or two half days per week. Masters degrees are offered by e-learning worldwide with a strong niche market in Sustainable Development.

History

Stiles (2003) in his *Embedding e-learning in a Higher Education institution* gives a detailed history of the history of e-learning at Staffordshire University. He writes:

This study discusses issues of 'embedding' E-learning in a UK University. For this purpose, E-learning will be considered embedded into an institution when all policies, procedures, roles and responsibilities

pertaining to its use are fully integrated –not just with each other, but with those applying to normal practice. Whilst an institutional map could be produced for E-learning, it would be done by extracting the information from policies, etc., covering the institution holistically, rather than as a special set of E-learning statements. Embedding also implies that E-learning is part of the culture of the institution, and is seen by all as part of normal working practice, and as part of the normal portfolio available to facilitate learning by teachers and learners.

In the majority of universities, E-learning has begun with the introduction of a Virtual Learning Environment (VLE), a system focused on the delivery and support of learning opportunities. Institutions whose use of VLEs is relatively mature are moving towards the establishment of Managed Learning Environments (MLEs) which include all of the wider features of enrolment, course options, management, student record and profile keeping, the wider management, interchange and publication of content, and the features needed to allow learners to move or progress between courses and institutions

E-learning at Staffordshire University developed as a component of a wider Learning and Teaching Strategy 'Building a Learning Community' (BLC) which arose from senior management recognition of the need for the organisation to be distinctive in a changing and competitive UK HE sector. BLC emerged in 1996 from a Vice-Chancellor led process, facilitated by external consultants, and coordinated by the then Head of Education Development. The nascent strategy saw the University as a learning community, valuing collaboration and peer support, where people felt welcomed and included. This student-centred change process was driven from the top down and the bottom up, with the Vice-Chancellor and Executive emphasising that buy-in to the strategy was not optional, and that the process would be resourced. Senior management, academic, and service staff suggested contributions to the implementation of the strategy. A first round of top-sliced funding was used for schools and services to run projects aimed at learning and teaching innovation. Many were technology related and typically carried out by enthusiasts. These projects, whilst producing some good outcomes and localised change, did not have widespread impact and revealed weaknesses in an enthusiast driven approach.

Stiles (2005) summarizes these developments:

The process of change leading to the introduction of eLearning at Staffordshire University began in 1996 with its 'Building a Learning Community' strategy revised in 1998 to include the institution-wide introduction of a Virtual Learning Environment. These initiatives brought about a focus on issues of learning, and by 2000

the use of eLearning was widespread across the institution. However, a number of problems still existed, in particular a content-centric view of eLearning, coupled with a failure by teaching staff to recognise the need for associated pedagogic development. In addition, quality processes reflected this content-centric view and had resulted in a lack of ownership of quality assurance for eLearning by teaching staff. Last, developments had been piecemeal across the institution and staff were not learning from each other's good practice. Around this time, the development and introduction of complete distance-learning eLearning awards highlighted the need to address issues of course design, delivery and support more aggressively, as did the inception of SURF's Foundation Degrees, which also highlighted problems of cross-institutional working and cultural differences between further and higher education. This led to a rethink of development processes and the introduction of 'Integrative Development' with staff development and pedagogic design built into a managed team working approach where a learning technologist works as project manager with an academic team, drawing widely on expertise and support across the institution.

Stiles (2003) continues the narrative:

Late 1997 saw a move to large scale adoption of distributed learning, centred on the adoption of the Lotus Learning Space and a university-developed VLE COSE, to increase the rate of change and provide a University-wide focus to BLC development. Large-scale pilots of Lotus Learning Space were chosen by competitive bidding, judged against BLC and Schools' own learning and teaching strategies. Later, this changed to a system where schools submitted plans and were allocated funding to support them once approved. Developments were approved before funding was allocated and released against progress. School appointed managers to drive BLC activities and form a central group to drive dissemination of good practice. Central initiatives were also funded in particular areas. Staff development in E-learning was embedded in the process. Accounts for VLEs were allocated conditional on the undertaking of centrally provided training or verification of local cascading. Central staff development had pedagogic issues embedded into the technical training; this was found to be more acceptable to teaching staff, as they were less likely to take up purely pedagogic offerings.

By mid 2002, BLC could be viewed as an overall success. The initiative had succeeded in joining up many University strategies and had received direct commendation from the UK HE Quality Assurance Agency. Also, all QAA teaching quality reviews since 1998 had received excellent scores.

In terms of cultural change, BLC was successful in bringing teaching and learning into mainstream discussion amongst faculty. Some School BLC managers had received advancement as a result

of their work and other staff had received Learning and Teaching fellowships. This helped to get staff to see excellence and innovation in learning and teaching as an area worth personal effort. In E-learning there had been considerable progress:

- Several hundred teaching staff had undertaken training in the use of the VLEs:
- Some two hundred modules were making use of E-learning
- Full distance learning “ e ” awards had been developed and were proving successful
- As part of its HEFCE funded HE/FE consortium, Staffordshire University Regional Federation (SURF), the first Foundation Degree had been developed, making significant use of a VLE
- Generic modules in careers development and information skills had been developed and used
- VLE and MIS systems had been linked for student enrolment
- Progress had been made in the provision of eResources for learners from eLibraries and eAggregators

This narrative shows that those who claim that a successful history of distance education is needed for success in e-learning are not correct. Staffordshire University does not have much of a history of distance education. It had a history of delivering overseas distance education courses in places like Hong Kong or Singapore but no detailed distance education offering.

The development of competence in e-learning as described by Stiles is a fairly distinctive story. Staffordshire University has a very long history of e-learning going back to 1997. The university entered e-learning as a means to make the university distinctive. It wanted to achieve this by learner-centeredness and this led to e-learning. E-learning at the university had an institutional focus from the start. The Lotus Learning Space VLE was installed in 1998 and the university focused on a learner centered approach and blended learning.

The university had a Learning Development Centre, today the Learning Development and Innovation Team, to drive the process. Senior management stated that success in e-learning was not optional – the project had to succeed. The university followed a classical roll-out strategy but this made little impact. It then turned to funding projects in faculties to contribute to the corporate pattern. A lot of organizational change occurred in the period 1998 to 2002. This included the change of VLE from Lotus Learning Space to Blackboard – a traumatic experience but necessary to scale up e-learning to an industrial level.

By 2002 the university had a very good spread of expertise in e-learning but there were holes in it. The university developed an Integrative Approach to Staff Development. This embedded e-learning into quality control and into academic planning. Workshops at regular intervals worked with staff on validation and quality assurance. The latest developments involve workplace modules in elearning for which 30 credits towards a Masters degree are offered. Acceptance of this credit towards a Masters degree is optional. Since

2002 there is a focus on competence in elearning based on delivery workshops for development. The goal is putting the right support staff with the academics at the right time. All this has been driven by a stable Learning Development engaged in Research and Development for many years.

The development of e-learning at Staffordshire University has been followed up by evaluation and research as the list of references appended to this report testify. The university does research in nationally funded projects, especially those funded by JISC, the United Kingdom's Joint Information Systems Committee. Stiles (2005) explains:

The reuse and repurposing of electronic content is seen as major factor in spreading the effective use of eLearning and embedding it in educational practice (UK Department for Education and Skills/ DfES 2005). In 2002, the Staffordshire University Regional Federation (SURF) was successful in bidding for funds from the Joint Information Systems Committee (JISC) under its Exchange for Learning Programme. The programme focused on the reuse and repurposing of existing electronic resources across Further and Higher Education, and the deposit of 'new' resources in a formative national repository called JORUM (Jorum is a JISC-funded collaborative venture in UK Higher and Further Education to collect and share learning and teaching materials, allowing their reuse and repurposing, and standing as a national statement of the importance of creating interoperable, sustainable materials). The project partners were Staffordshire University, and two of the SURF partner colleges: Stoke on Trent College and Shrewsbury College of Arts and Technology. SURF is a directly Higher Education Funding Council for England (HEFCE) funded consortium of nine Staffordshire and two Shropshire Further Education (FE) colleges and Staffordshire University, created in 2000 to develop a strategic partnership approach to the provision of higher education through FE colleges in the region.

Stiles (2003) describes further research initiatives thus:

Staffordshire University benefited from being active in initiatives, locally and nationally ,including development of a VLE ,work on interoperation of VLEs, interoperation of VLE and MIS systems, accessibility in E-learning, reuse and repurposing of content, work with eAggregators, and PDP. The author has contributed articles and briefings, including a section on Embedding for the JISC MLE Development InfoKit. The InfoKit draws on expertise from across the UK and reinforces many of the experiences and conclusions covered here. JISC funded a study of MLE activity in 2002/3,surveying a significant sample of UK institutions and detailed case studies of a small number. This revealed the vast majority were now using a VLE and that 73%were involved in some degree of MLE development, with the following main drivers for development:

- Enhancing the quality of teaching and learning
- Improving access to learning for students off campus

- Widening participation/inclusiveness
- Student expectations
- Improving access for part-time students
- Using technology to deliver E-learning.

Technical issues

Staffordshire University was doing Research and Development in e-learning with JISC as early as 1996 and developing its own VLE, known as COSE. This work has been stable over the years and the university is quite well known and has been constantly at the front end of elearning development, both pedagogic and technical.

The university has always used basic VLEs and the COSE system, its own development so that nothing extra had to be bought by students who possessed a basic PC or laptop. The university migrated from Lotus Learning Space to Blackboard and put considerable work into integrating systems in Blackboard. It has been a pioneer in the academic use of eBooks and today has access to 100.000s of eBooks and online databases.

The integration of IT systems in e-learning is regarded as very important. The VLE has direct links to the Management Information System and to the library, but has not yet installed facilities for e-enrolment. The student records system is directly linked into the VLE, as are the quality assurance and academic planning systems. A weakness is that the administration is not well linked to elearning and that the course catalogues and prospectuses are not online. The university wants to be able to aggregate all the e-learning course descriptions in the UK in an online database, for example all the e-learning biology courses from all the universities in the UK.

The approach has been to use the IMS specifications (the IMS Global Learning Consortium develops and promotes the adoption of open technical specifications for interoperable learning technology. Several IMS specifications have become worldwide de facto standards for delivering learning products and services). The university was one of the first UK institutions involved in contributing to the IMS and to defining IMS web based services.

Courses

Most subject areas at the University are now involved in e-learning:

- Computing Studies (mostly blended elearning)
- Engineering and Technology (some work-based, some blended, some distance education)
- Health Education (some blended, some distance education)
- Sciences
- Forensics
- Biology (mostly blended)

- Psychology
- Law
- Social Care and Advice
- Business Studies
- Ceramics, Art, Media and Design (distance education).

There are no subject barriers to elearning. It is a question of choosing the right tool for the right job. An early department to take up elearning was English Literature, who used elearning very successfully for problem based learning. Mathematics at university level has not been very successful with elearning, neither has Computing Studies for which the norm is traditional distance education rather than elearning. An important aspect for the University's course profile is the SURF regional federation which links the University with 11 colleges. They teach 18% of the University's EFTSs (Equivalent Full Time Students), with the technological element being mainly e-support and e-work-based learning.

A particular case was the Geography department which was faced with closure, as not many wanted to do a degree at a 'New University' in Geography. They made the move to elearning and today have hundreds of Masters degree students studying Sustainable Development at a distance by elearning.

The university's business processes do not favour flexible start-up, continuous enrolment and individual progression. The university treats its elearning students as cohorts like its ordinary students. In general the bulk of the communication in elearning is asynchronous rather than synchronous. In pure distance education courses some have weekly chat sessions. These are optional and appear to work. In general, the tutors choose synchronous or asynchronous mechanisms according to taste and subject matter.

Management, strategy and attitudes

Elearning at Staffordshire University was completely driven by the university leadership and this played a significant role in its success. The university Vice-Chancellor championed elearning from 1996 onwards and impressed on staff and management that failure was not an option. Elearning had to succeed. All the elearning work since then has been integrated into policy at corporate level. Developments at faculty level as well have been integrated into university policy. Thus elearning was supported from the start at both Vice-Chancellor and senior administrative level.

There are no differences in attitude to elearning by different groups of staff. In all departments there are those who stick to their ways and those who are innovative. It is not discipline specific. Some are keen on elearning, some are not. It is not a major issue. The Geography department were very keen because they had strong external motivation.

The university has a policy on elearning – the first university in the UK to have one. It is a policy and not a separate strategy. The university has embedded

elearning in university assessment. The university has embedded elearning in the University Business Plan. The policy is that by 2010 one will stop talking about elearning and regard it as normal provision and this will be the proof that elearning has been embedded as a normal component of university provision. If staff see elearning as something separate then elearning is in trouble.

Stiles (2003) summarises:

Embedding requires an understanding of how E-learning fits into organisational strategy, departmental and other operational plans. A shared understanding of how it forms part of the learning and teaching experience is an equally important facet which requires a perception by all staff that E-learning is part of normal practice.

The cultural changes required affect teaching, support, administrative and management staff, and require recognition of the symbiotic relationship between culture and policy and procedure. Staff development linked only to strategy will not achieve the changes required, but needs to be embedded in the production process and the processes of changing policies and procedures. This will enable changes in roles and responsibilities to be embedded culturally as well as functionally. Administrative and management staff must be involved fully in this process with senior management commitment to real change at both strategic and operational levels.

The process for working towards embedding at Staffordshire, with its inclusive approach, has proved to be a major staff development and cultural change activity in its own right, by causing disparate groups of staff, and particularly managers and administrators, to engage with the issues and each other in the context of E-learning.

The university is a UK leader in the embedding of quality into academic planning. In the university the quality of the intended learning experience is justified and repeated each time the course comes up for consideration. Some staff like this, some don't claiming that 'Nobody asks me to quality assess the notes I give out or the slides I use!'

The effect of e-learning on staff workloads was anticipated by distance education which challenged the nature of staff contracts. The university now focuses on 'student hours facilitated' rather than 'student hours delivered'. An issue from day one in 1998 was that of a staff member who used e-learning to reduce her contract hours by 80%. She was given an extra course to teach. The university now works with service level agreements; elearning has changed the nature of teaching.

From the point of view of cooperation and collaboration in elearning with other institutions, it is clear that its regional federation is important to Staffordshire University and is an important source of recruitment to it. This federation is directly funded by the government HEFTE, and the federation is much

stronger than a franchise operation. 18% of university enrolments come from it. The university and the federation bids for research funding together and the university undertakes many JISC funded projects with other universities.

The relationship of the university with government and the public administration is that of a typical modern UK university. The university is the same as the other UK universities but has high credibility in elearning.

The university is able to handle its large number of online courses and students by being well organised. It has achieved elearning robustness and sustainability and has moved from one VLE to another. The university is now moving to a Learning Object Repository where we can find the content, reuse it, reformulate it and make it available to all. This type of portal service is not facilitated by our present VLE.

Economy

The university has recognized the need for a costing model to enable decisions on the pricing of E-learning courses to be well-informed. The problem is far from simple as pricing is often contextual: according to type of client, mode of attendance, need to break into a new market etc. However, the lack of a common shared model could result in inconsistent charging (even to the same client!) or unintended loss making.

The cost-effectiveness of elearning is unquantifiable. It is money in, money out. There are cost benefits like enhanced retention and better recruitment. Distance education can be cost-effective. Blended learning is not cost-effective but it could be cost-efficient, if one was losing 30% of the student body and elearning reduces this.

Income from elearning is just as stable and predictable as income from on-campus education. A new course either succeeds or it doesn't. The ability to sustain a course is the same as in any other form of provision. If it is rubbish it will not succeed, it does not depend on whether it is elearning or not. The Geography department now have 600 post-graduate elearning distance education students – showing that elearning provision can be stable and predictable.

One has always to be aware of market pressures. At present the university is piloting new 2 year degrees. The model is to run 3 semesters a year instead of 2 – one of these is usually a distance education semester. This is known as the Pathfinder project. The university is also piloting smaller course units and lower levels of granularity.

The university does not use flexible employment strategies for elearning. It is all fulltime or parttime staff, the same mix as all the rest of the on campus provision. Elearning has the effect of blending distance education and on campus provision.

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