

Spent force or revolution in progress?

eLearning after the eUniversity

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Section 1: Overview

1. Elearning (eL) - the deployment of computer and/or networking technologies in support of the learning process - is here for good and is being incorporated in various ways into what UK HEIs provide. A growing volume of relatively low key development shows eL working largely in a blended learning environment, alongside traditional pedagogies for the benefit of learners on campus and elsewhere. This trend will continue and has the scope to transform HEIs.
2. eL is no longer separate from mainstream learning but is taking root in departments, usually with support from central units. The process is steady and irreversible but currently the purpose and usage of eL are locally determined. The task for an HEI is to operate as a whole, integrating developments in eL into Learning and Teaching and related frameworks. eL succeeds for an HEI precisely where it helps to deliver core teaching functions and fits with other work patterns. The current language nationally is of “embedding” eL into an HEI. This could represent a view that HEIs may not need further financial encouragement to engage with eL but will need support with structures, models, and finding appropriate standards and procedures.
3. In contrast to recent developments in higher education, industry work has slowed dramatically: standards bodies are making less headway and software teams are being downsized. This perhaps results from a failure to raise as much revenue as anticipated: industry is waiting for more uptake before investing further.

Section 2: Trends

4. The revolution in work and office practices has made the networked PC ubiquitous in office environments: information systems are accepted as part of life, and practices from one part of the work environment have transferred to others and to the home. In higher education, research has led the innovation in work practices, and it is very hard to be research active without exploiting computing and networking technology. Interestingly, people claim to do neither eResearch, nor eAdministration – they merely rely on e in doing research or administration. It is the

pervasiveness of the technology elsewhere that has eventually transferred to an area where HEIs have, with reason been conservative – teaching and learning.

5. Some of the most powerful uses of technology in eL seem quite modest. For example, many tutorial and academic staff now encourage students to email questions rather than “corridor lurk”. This fits normal work practices. When picked up and formalised into systems that allow forwarding etc., so that there is a departmental or wider support system in place, it becomes genuine eL. Learners benefit from such treatment, getting the information they need when they need it.
6. Such developments allow off-site learners to access learning and resources as if on the main campus. Libraries increasingly offer resources on-line and have proper legal and technical underpinning for these. Teaching staff often encourage such anytime, anyplace working by making study materials available electronically including notes and “model answers”. Learner wishes reinforce good practice.
7. With increasing diversity of the student body, the use of technology to support “remedial” work is increasing. Systems allow learners to identify and address an individual learning deficit, and there is more pervasive cost effective formative assessment, giving learners good feedback. Administrative tools tracking progress and identifying students “at risk” also give measurable benefits.
8. Local infrastructures have evolved rapidly. Most HEIs have some form of learning and teaching unit that intermediates between practitioners and local and national pedagogic experts. As a result of an existing culture of enhancement, monitoring and evaluation, such a central unit can become a custodian of and a broker for good eL practice (though in many cases activity can remain subject specific - such as in language teaching where technology use is already well developed).
9. The adoption of eL shows a repeat of a clear pattern. UK HE has a distinguished history of leading edge innovation. As 1995-2005 has been characterised by HEIs building their own learning management and content management systems, so 1955-1965 was characterised by building their own hardware, 1965-1975 by building operating systems, 1975-1985 by building compilers and word processors, and 1985-1995 by building networks and browsers, all with national support. In these cases activity was eventually superseded by standard products as industry caught up and overtook universities as business opportunities arose. The initial leaders (eg Manchester, Newcastle, Edinburgh, and Cambridge) usually had the biggest retrenchment task.

10. The UK leader in eL remains the Open University. Its business depends on remote, cost effective, efficient delivery of learning and, in the case of eL, good support for its tutorial model. It has invested in supporting remote learners learning collaboratively, for example with threaded discussions. It has developed extensive leading edge local systems wrapped round commercial products but unlikely to be taken up elsewhere. The underlying pedagogy, with its emphasis on mapping specific learner requirements to the best ways of meeting them, is key. The Open University has extensive systems for the submission and return of assignments, content management, tutor feedback, and support.
11. Other HEIs are now adopting eL, staying within their own structure and framework, and integrating with local quality assurance systems. The department has become the most common focus for eL development, and a transformation is underway from individual to group and from group to department, faculty or HEI. Some institutions have developed subject specialisms which often coincide with Higher Education Academy (HEA) subject centres or planned centres of excellence (CETLs). Most HEIs have eL activities in some departments: these can be mutually incompatible although current standards work may help. In 2000/1 there were over 50 home grown eL “systems” in the UK - an investment not always returned.

Section 3: Some historical reflection

12. The past of national funding body initiatives has led to the existence of a large body of people able to help in the evolution of eL within HEIs. Nevertheless there is a widespread view that these initiatives have not delivered as much learning support material, and especially its deployment, as they should. The 1973 Computers in Teaching Initiative (CTI), was mainly directed at awareness raising and training. The early involvement of professional support and the sharing of results undoubtedly contributed to its relative success and many who were then involved now lead support centres etc. However, CTI projects were not usually disseminated widely, in part because the traditional ethos of HE and its promotion routes, coupled with highly selective research funding, caused – and continue to cause - academic staff to try to give a research focus to most new developments, rather than focus on their application. As a result the Information Systems Committee (ISC) set up a set of subject based support centres whose function included dissemination of the results of CTI projects - a model which was later widely adopted in other initiatives.

13. In the early 1990s the Universities Funding Council introduced the Teaching and Learning Technology Programme (TLTP) to help HEIs manage the expansion of student numbers that was under way. It was predicated on the view that common IT course materials produced centrally would enable high quality teaching with reduced staff:student ratios. This was never really tested: the programme floundered on the discovery that academic staff were strongly averse to adopting wholesale teaching materials developed by others. Another factor in the lack of success of the TLTP was the lack of concentration - originally it was to cover service mathematics and languages only, where there was much existing material, where the delivering unit was not in control of the resources available, and where academic staff were less likely to be concerned about ownership.
14. In 2000 HEFCE persuaded the DfES to inject substantial sums into the eUniversity. A number of organisations in other countries were offering accredited eL distance adult courses, and England was in danger of missing out. The idea was again to concentrate – this time a small number of HEIs that knew what they were doing was proposed. Then came consultation, dilution and democratisation, extra work and delays, and HEIs did not put forward their offerings most likely to succeed.
15. A simple explanation for the failure of the eUniversity is that no-one had a primary overriding interest in its success. The funding body could not drive the venture as it was concerned neither to break funding rules nor to appear to act as a shadow director. HEIs and commercial suppliers were focussed on avoiding risk. Senior staff seemed interested in defining personal success in ways which did not relate to recruiting learners, and the Government seemed primarily interested in having reports of a successful public private partnership. The timing of the eUniversity was unfortunate, the markets poorly chosen, and the necessary flexibility was lacking. Ultimately the eUniversity recruited very few students, spent too much effort on its IT platform, had over complicated governance, did not deploy private sector expertise in the right places, had a poor image with the sector and elsewhere, lost the confidence of its effective owners, and was wound up. By contrast the (very few) successful independent eUniversities are fully focussed on delivery to learners throughout and operate initially as a connected set of science park start ups.
16. So what can be learnt? Firstly to keep models simple and aligned with normal procedures. Secondly not to spend much on development without a clear idea of market. Thirdly to build testing and trialling into work. Fourthly to concentrate where gains are greatest. Finally to ensure appropriately qualified, professional, and motivated management of the process.

Section 4: Strategies

17. eLearning is rightly regarded as a key activity which needs a strategic approach, and national bodies have seen it as their responsibility to produce strategic frameworks within which those who provide eL on the ground can develop their strategies for implementation. There are therefore two types of strategy – the national frameworks, and the more practical implementation strategies of deliverers. However, it has to be noted that eL strategies do not always align with others: few maintain explicit cross links through say a single integrated web site.
18. The DfES strategy is a *unified* strategy covering all sectors but emphasising schools and FE. There is an emphasis on sustainability including reusability. When development costs are high, reusing material cuts unit costs. This leads to concepts of reusable learning objects – the building blocks of eL. The HEFCE strategy, now being re-released after remastering, stresses the need for HEIs to make independent progress within a supported framework of national advice and guidance, provided by the Joint Information Systems Committee (JISC) and the Higher Education Academy (HEA).
19. Many JISC strands come together to support eL. The aims of JISC include advising institutions to enable them to make economic, efficient and legally compliant use of ICT, helping the sector provide positive, personalised learning experiences, and aiding student progression. JISC therefore develops national infrastructure and experiments with models for local infrastructure. It has a background of system trials, eL experimentation, and standards activity. It will fund innovation, track technology, and evaluate new products, and offers ongoing advice, help, and sometimes funding. HEA, by contrast will work in the “people” area.
20. The learner centred Police strategy is an example of an implementation oriented strategy outwith HE, which focuses on delivering Quality of Service and hence improving standards within a short time frame. The aims include improving retention and addressing individual skills deficits, achieving a return on investment, and to impose standards to allow transferability. Tactical consequences for procurement and standards are expanded in an immediate implementation plan.
21. With defence cuts the Army has identified an urgent need to have more flexible, better prepared, more integrated people. Education and training play a major role and have specific aims and targets. The aims of the Army’s eL strategy include cost

effective delivery, improved support, targeting some learners, increasing opportunities, and a reduction of direct face to face tuition time. A five part model, worthy of consideration by HEIs is used covering:

- *Infrastructure* (network access, administration systems etc)
- *Facilities* (machines etc)
- *Courses* (some learning to do)
- *People* (cultural change, support, and related issues)
- *Funding*.

Section 5: Research and Professionalisation

22. To deploy learning technology successfully people are needed with an understanding of the systematic application of a core body of knowledge to the design, implementation and evaluation of learning. A growing body of new knowledge arises as pedagogic paradigms and technology possibilities interact. The substantive corpus of practice based research is being supplemented by underlying principles, resulting from the increasing amount of research into eL. Research (including evaluation) adds value by improving understanding. Effective evaluation of technology-based applications helps to avoid expensive mistakes in deployment or purchase.
23. Although there is an increasing amount of research in eLearning, such research is often accused of being devoid of reference to practical problems facing HEIs, such as those of interworking with pre-existing, inherited (and hence called “legacy”) systems – for example those for student monitoring or quality assurance. Discipline based research has often been essentially descriptive and aimed at the RAE. However, more recently, a number of bodies and agencies have identified and are meeting the need to bring together practitioners, researchers and organisational managers who are engaged in eL.
24. The Association of Learning Technology (ALT) research strategy lists a set of ten key research problem areas that are largely independent of pedagogy and technology. These include reusability, interworking with legacy systems, learner diversity, maximising retention, making assessment relevant, and designing learning that is cost effective, efficient, with inherent support for QA processes. These are precisely the problems facing institutional managers seeking to deploy IT in support

of learning. Each question has an associated set of underlying knowledge, skills and principles that practitioners need to understand.

25. With the emergence of a corpus of core principles and skills that define “professionals”, accreditation schemes for professionals with this knowledge are being piloted. The last decade has seen moves towards course teams involving combinations of academic and such “para-academics”.
26. Thus the national infrastructure has developed an environment in which there is support for implementation of an agreed action based HEI eL plan, written with the involvement of and facilitated by professionally competent individuals, meeting the needs of the HEI, and properly informed by research and evaluation.

Section 6: What should an HEI do now?

27. An HEI must be clear what is to be achieved, referenced to management and learning objectives and to finance. Examples, taken from elsewhere, might include:
 - *Making (specific) courses more cost effective*: this includes less use of expensive materials or travel, cutting face to face involvement, deskilling tutoring requirements, and improving tutor performance.
 - *Making courses more learner centred*: this includes extending the availability of learning opportunities in time and space, offering diagnostic testing to identify learning deficits, and extending opportunities to demonstrate achievement of learning outcomes.
 - *Improving the management and organisation of courses for quality and other purposes*: this includes identifying and maintaining standards, building in QA reporting, disintermediating administrators, and monitoring learner progress with a view to identifying those at risk etc.
 - *Improving the assessment environment*: this includes reminding learners of impending activities or deadlines, offering formative assessment and feedback cost effectively, and improving the match between learning outcomes and assessment.
28. Much can be achieved by deploying “off the shelf” software but this requires thoughtful deployment. Each aim needs a domain of applicability whose selection will be driven by a combination of cost benefit, risk, and suitability. The emphasis

should be on taking things that already deliver in the HEI or elsewhere and making them work more widely. The five part model can then be used.

29. HEIs need access to the support of appropriate professional expertise and most find it best to have this in house. National support bodies like ALT, HEA, and JISC can then facilitate tapping into the discipline, technology, or pedagogic research needed to inform deployment. HEIs need to interpret and apply the advice within their own framework, itself grounded within national thinking, and allocate resources.
30. The adoption and widespread deployment of eL usually requires a review of an institution's internal structures and processes. Some approval and quality structures may need overhaul or re-interpretation as may assessment and other regulations. Committees need to interact with eL development at points that are different from traditional learning; and standards need to be defined and adopted, with structures and processes established for this.
31. At discipline level, advice is often best provided through the relevant HEA subject centre. Much academic courseware is available freely, since content is no longer viewed as a major differentiator: perceived value largely lies in brand, support, accreditation, and licenses to practice. Accordingly, large-scale eL courseware development should be minimised, planned and phased in. Time from conception to use by learners is important: areas with a "course team" ethos are best placed to meet delivery targets.
32. Senior management needs to concentrate on such high-level issues. There is little need for their intervention in facilities, infrastructure, or licensing: these are largely in hand locally and JISC advice and information is available, though facilities for off-site learners may need some attention.
33. A revolution is under way, and nearly all HEIs in the UK are part of it. Given clear aims, good advice, appropriate help, professional work, and a paced approach, rapid progress should be made. The UK has learnt from its past: the grand initiative era is over. An HEI needs good appropriate pedagogy, sound professional resource, and appropriate planning structures for eL within a coherent institutional framework and infrastructure. It must enunciate that framework for itself and implement it through local infrastructure and with national advice. The role of national bodies is to ensure that such advice is appropriately available, and that those working in eLearning can learn from the experience of others.