

LTSN Generic Centre

e-Learning Series

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A guide for Senior Managers

By Martin Jenkins and Janet Hanson



Introduction

The Generic Centre e-learning guides are the first fully comprehensive guides on e-learning aimed at specific audiences within UK higher education. They address issues that are key to senior managers, teachers, support staff, learning technologists, heads of department and students, but the same message emerges from all: e-learning *is* learning, providing us with useful tools not only to deliver an enhanced learning and teaching experience, but also to push the boundaries of learning and teaching through creative use of technology. With e-learning now high on the agenda of the UK Government and of all educational sectors, it is clear that e-learning is here to stay. We hope that you will find these guides, written by leading practitioners in the sector, to be timely and relevant in developing your individual and institutional approaches to e-learning.

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1 Introduction

“We stand at the threshold of what could be a very invigorating time for higher education” (Newby, 2002, p8).

Higher education (HE) stands on the edge of a revolution through the use of new technologies which are seen as both a threat and a saviour. Although its potential has yet to be realised, it is no longer a question of if e-learning can be used to transform learning in new and powerful ways, but in what ways and how higher education institutions (HEIs) should be transforming their practice to utilise it. At present, e-learning is being used mainly to enhance current practices in campus-based educational institutions; the new medium is being used to deliver the content of the old medium (the lecture).

Within the United Kingdom there are increasing and varied pressures driving the greater use of e-learning within HE: student expectations, reduction in unit of resource and external pressures relating to quality assurance, enhancement of teaching and learning, competition, increasing access, widening participation and achieving efficiency gains. Many of these seemingly piecemeal developments may now become more unified through the government’s attempt to promote the use of e-learning coherently through all sectors of education (DfES, 2003). Developments in connectivity and access to technology in Northern Ireland, Scotland and Wales will also open up access to e-learning opportunities for all citizens of the UK.

As a consequence, HE is now challenged to move on from the early adoption of e-learning to recognise its potential and amend practices to embed e-learning. The potential is enormous but this process

of going online must be managed to ensure that e-learning is developed with a clear vision and purpose, and is sustainable. Senior managers within HEIs, therefore, have a critical role in providing leadership and vision, in establishing a clear policy and in ensuring that all the relevant stakeholders within their institution are brought together to facilitate integration of the necessary infrastructure, staff development, IT and student support.

This guide for senior managers seeks to:

- outline the context of e-learning and how it is being used at present in higher education, both nationally and internationally;
- identify the potential benefits to enable your vision for e-learning to be articulated;
- identify the key issues to be addressed to implement e-learning successfully, including costs;
- and highlight likely future developments.

Each section will start with a list of key questions to consider for the effective implementation of e-learning. These are the key questions that, as a senior manager, need to be asked of your institution. They should be related to the local context of your institution and your responses will vary according to the culture, strategy and expertise within your institution.

2 Definitions

Different institutions or staff may use different terminology to describe similar concepts. We have identified below some phrases or concepts which we are aware may be open to different interpretations and we have outlined the context in which they are used within this guide.

Association for Learning Technology (ALT) state that 'learning technology makes use of a range of communication and information technologies to support learning and provide learning resources. ALT believes that learning technology adds value to both the efficiency, and the effectiveness, of the learning process' (Seale & Rius-Riu, 2001, p. 3).

The LTSN Generic Centre (2002) define e-learning as 'learning facilitated and supported through the use of information and communication technologies'.

For the purpose of this guide the emphasis is on learning delivery and support, which is facilitated through the use of web based or networked technologies.

A Virtual Learning Environment (VLE) is a commercially available system such as Blackboard or WebCT, providing an online environment to support learning and teaching. Typically these systems include tools for content delivery, communication, assessment and student management. The vast majority of FE and HE institutions within the UK already have adopted a VLE.

A Managed Learning Environment (MLE) links corporate systems such as the VLE, the student records system, library management system or finance system so that data is integrated and shared across all systems. This allows for data to be

entered in only one place and for it then to be cascaded into appropriate systems. Many institutions are exploring ways in which VLEs and other systems can be integrated to deliver this MLE concept.

For explanations of more terms related to e-learning see the glossary produced by the LTSN Generic Centre (<http://www.ltsn.ac.uk/genericcentre> > Resources > Glossary) or UCISA's Glossary of Acronyms and Terms (<http://www.ucisa.ac.uk/resources/glossary/>).

3 Thinking strategically about using e-learning

Key Questions

Where does your institution seek to position itself in the UK higher education sector and how might e-learning support this?

Which of the potential benefits of using e-learning are relevant to your institution? For example enhancing student learning; increasing flexibility, widening participation; overseas recruitment; supporting collaboration with Further Education Colleges (FEC) and other education providers.

Who is responsible for ensuring that a strategy for e-learning is being considered in your institution?

The benefits of using e-learning can be broken down into those for the learner, those for the academic and those for the institution as a whole. Any consideration of the use of e-learning must consider these perspectives but it must be emphasised that any e-learning developments must be made for sound pedagogical reasons. This section seeks to identify potential benefits for using e-learning and identifies some of the external factors driving its introduction into universities.

e-Learning is being employed in different ways across the sector to meet a range of

institutional objectives which include:

- to enhance student learning;
- to increase market share, including reaching overseas markets;
- to improve access and widening participation;
- to support increased flexibility in learning;
- as a key component in collaborative ventures with partner institutions on a regional, national or even international scale;
- to increase the efficiency of information dissemination;
- to help reduce costs.

3.1 Educational benefits of e-learning

There is a growing body of evidence which suggests that e-learning can have a significant impact on the student learning experience but this change is happening much more slowly than anticipated. Change as a result of ICT use is slow and not radical. Those institutions making significant use of e-learning do not report radical changes taking place, rather e-learning is seen as '*stretching the mould*' of traditional learning and teaching.

The widespread use of ICT through the web, e-mail etc. has become part of

everyday campus-based delivery providing a number of tools for teaching. This is resulting in a growth of 'blended learning', a mix of face-to-face teaching supported by use of ICT applications. Most uses of e-learning currently supplement or complement face-to-face teaching, where students use e-learning to enhance their access to learning resources and information but are not required to use the e-learning applications.

e-Learning can enhance the students' overall learning experience; it improves

flexibility, increases opportunities for access, improves communication between staff and students, provides the opportunity to access information and services, and has the potential for making administrative efficiencies. All of these aspects are interrelated and the mix will vary within each institution.

- **Flexibility:** e-learning provides students with greater flexibility to learn when it suits the individual, support can be made more flexible and different learning styles can be accommodated.
- **Access:** increased flexibility means increased access as students are no longer limited by time and location of courses available.
- **Communication:** the communication aspect of ICT is likely to have the most significant impact on learning in HE. Writers such as Laurillard (2002), Garrison and Anderson (2003) emphasise the importance of the social aspect of learning, the ability to develop learning communities. e-Learning, through the use of web based technologies provides this and offers the opportunity to transform learning.
- **Access to information:** the development of the Internet has resulted in an explosion of information, in a range of media, easily available through the sophisticated search facilities now available. This information, together with the growing collections of e-journals and e-books, can be used to support e-learning and traditional delivery alike.
- **Access to services:** the development of web based services increases the opportunity for self-service access to services and information, streamlining processes for the benefit of learners and the

institution alike. MLE developments are seeking to integrate these developments to improve services and make administration efficiencies.

In addition to the above benefits HE is operating in a society in which ICT is increasingly apparent; there is a growing use of e-learning in schools and FE and students' expectations for using the Internet and other technologies are increasing.

Although we anticipate that these potential benefits and the associated changes will take place, many of them have not yet been fully realised. HE is in a developmental phase of e-learning. Indeed, for many years, ICT has been heralded as the major change that will break the traditional mould of HE. Current e-learning developments are part of a time line of HE technological developments, through programmes such as Computers in Teaching Initiative (CTI), Teaching and Learning Technology Programme (TLTP) and the Scottish C&IT programme (ScotCIT).

These earlier programmes demonstrated the potential of ICT, but failed to make any significant impact on the sector. This is largely due to their focus on specific IT products and not on broader institutional change issues. Likewise, initial claims about web based developments were exaggerated, courses which lacked appropriate pedagogical design were developed without appropriate investment and these problems were compounded by technical problems. The Open University has put very few courses fully online, but instead is using e-learning for student support.

3.2 National, political, economic and social imperatives

The use of ICT to enhance learning and teaching in HE has been promoted through government funding for many years, initially with the aim of achieving efficiency gains, but latterly focussed more on enhancing the flexibility of provision. e-Learning may now be considered as one of the main ways of meeting three government aims; ensuring that more students from disadvantaged backgrounds obtain a university education, that HE supports the growth of the economy and that competition from overseas providers is minimised (DfES, 2003a).

Although participation in HE has increased, the proportion of students from disadvantaged backgrounds is still considered too low, so the delivery of learning opportunities must become more flexible. e-Learning provides greater choice and enables a more diverse student body to learn through part-time and distance learning modes. It also has great potential for enabling those with

disabilities and additional learning needs to access higher education. The TechDis service provides guidance on accessible e-learning (<http://www.techdis.ac.uk>).

e-Learning also plays a role in higher education's support for the growth of the economy, especially at the regional level. There is great demand to expand provision, strengthen links with business and meet employer needs through, for example, work-based learning and more flexible provision for their continuing professional development (CPD) requirements. e-Learning is particularly suited to the needs of the postgraduate CPD market, where the social aspect of attending university is usually less important to students. Much of the expansion of Foundation Degrees is expected to take place in Further Education, and here e-learning has a part to play in ensuring that students can effectively and efficiently access learning resources available at the partner HEI.

3.3 The global HE market: threats and opportunities

Higher education is already a global business, with overseas competitors entering our traditional markets, both abroad and potentially in the UK. This growing trend towards 'borderless education' (CVCP, 2000) is the result of:

- an increase in the number of private for-profit, providers, including the virtual universities, who market their flexibility and accessibility of their support;
- a blurring of boundaries between

education and training providers, as corporate providers increase their lifelong learning provision available to their employees;

- existing HEIs who develop e-learning and/or establish private ventures, often in partnership with IT systems vendors or publishers.

Corporate universities are a potentially significant development. The University of Phoenix, a for-profit university, provides a mix of campus based and online courses.



In 2000 it had upwards of 75,000 students and was making a profit (Darby, 2002). Phoenix charges more for its online courses than for its campus-based courses, but it has a higher ratio of staff to students for the online courses (1:9) than for campus based courses (1:15) (Fielden, 2002). The potential competition from corporate universities makes it even more important that HEIs consider the costs of their courses (Ash and Bacsich, 2002).

e-Learning may be used to enhance an HEIs' potential to expand its market share and to counter the new competition from overseas providers within the UK. It is attractive to international students both in encouraging them to come to the UK, or alternatively, in enabling them to study locally to reduce their costs. With these aims in mind, the use of the web can make your institution more visible. For example, Massachusetts Institute of Technology (MIT) have recently made a commitment to make the materials from almost all its courses available freely on the internet for non-commercial use; the MIT OpenCourseWare initiative (<http://web.mit.edu/ocw>). By making its support materials available MIT is sending a message that the provision of lecture notes online (a common response to e-learning) is not sufficient for a complete learning experience. Indeed it hopes to use the initiative to attract more students.

The most effective entry to this global e-learning market is through collaboration, to share the development and operational costs, as for example the UK e-University (UKeU) aims to do (CVCP, 2000). The increased potential for HEIs to collaborate in the development of e-learning

opportunities is clearly signalled by the Higher Education Funding Council for England, as their diversity of mission becomes more distinct (HEFCE, 2003). Several collaborative partnerships have been established to increase market share, to market to a wider national and international market and to share development costs. Some have a national membership, such as UKeU or Western Governors University, a collaboration of ten states in the USA, while others cross national boundaries, for example, the Global University Alliance. However, despite these opportunities, the potential threat of overseas competitors has encouraged the Universities UK (UUK) and the Association of Commonwealth Universities (ACU) to establish the Observatory on Borderless Higher Education to scan and report on developments worldwide (<http://www.obhe.ac.uk/>).

Commercial companies and publishers are also involved in providing online materials to complement or add value to traditional printed resources. Given the potential costs of developing e-learning 'in-house', many institutions will look to commercial providers such as Pearson's, Boxmind or BBC Worldwide for their content. The use of this commercial content is likely to raise many cultural issues within your institution, as academics may object to teaching using material they have not created themselves. You may wish to look for external content that can be adapted and 'blended' with the teaching content and style that already exists within your institution.

4 Implementing e-learning in your institution

Key Questions

What is your institutional strategy for e-learning and to what extent is it linked to other strategies such as learning and teaching, information and estates?

How sustainable are your e-learning developments?

What new staff roles might you have to consider, for example, learning technologists?

Are your support services and academic departments prepared to work collaboratively on e-learning developments?

What reward and recognition strategies do you have in place to encourage academic staff to adopt e-learning? How do you overcome the perception of some academic staff that e-learning is not appropriate to their discipline/programme/students?

What staff development is provided for support and implementation?

How are students supported in the use of e-learning? What student support and skills development is provided?

Whatever your reasons for moving to e-learning, it is the way in which implementation is undertaken which will greatly affect its success. The move toward greater use of e-learning will require change at all levels of an institution and for all categories of staff, including academics, students, learning support staff, administrators and managers. Successful implementation of e-learning is dependent on a range of factors relating to the culture and structure of the organisation and the motivations of those affected by the changes. Implementing e-learning requires vision and commitment from the top and a multi-level institutional

framework to support integration. In many HEIs, ICT is being used increasingly to stretch the mould of teaching, where staff are doing more but without recognition, and where localised developments are focused on key individuals without an institutional policy. To take this use to a strategic level requires institutional leadership and direction from senior managers to formulate clear policies and to manage the change process. *It is the latter change management process, changing the culture, expectations and perceptions within institutions, which is the most demanding aspect of implementing e-learning.*

4.1 Factors affecting e-learning implementation

Leadership and resources to support and sustain e-learning

Leadership is essential to successful institution-wide implementation of e-learning. The new technologies challenge the traditional approaches to managing

universities and to learning and teaching practices. The key is to find an appropriate strategy that can balance the development of e-learning; incubating and nurturing its development, whilst at the same time continuing to support existing practices



and markets. To achieve this, and ultimately the balance that is appropriate and sustainable to your institution, managers must create the right environment for development and collaboration through their own actions and by encouraging individuals who can lead and influence. As a senior manager you should not underestimate the level of resource required to develop, innovate and sustain e-learning in your institution.

Developing an e-Learning strategy

Learning and teaching issues must drive e-learning developments, but e-learning will impinge on all processes within the institution and your e-learning strategy should recognise the unique demands and opportunities of the distributed electronic environment, rather than attempting to replicate existing classroom and course design practices. For this reason, e-learning raises many questions which will impinge on virtually all your institutional strategies and business processes, and which must be addressed to support sustained growth, especially with the development of MLEs. Such strategies include teaching and learning, assessment, estates, copyright and Intellectual Property Rights (IPR), information and ICT. For example with the development of e-learning and the potential for wireless networks how will your estates strategy be affected? (Wiles & Core, 2002). e-Learning provides the opportunity for greater flexibility in terms of access, yet most HEIs still have fixed assessment and entry points. How will your teaching and learning strategy seek to address this challenge? In addition you

will also need to consider whether to adopt an institutional-wide development policy, supporting what has been described as an industrial model to e-learning development. This approach requires central investment, focuses on course development and is supported by expert teams. Alternatively a more localised 'craft' based approach allows development to be decided at a more individual level and so with local ownership.

Institutional commitment and development

It is important that all relevant stakeholders across the institution are involved in e-learning developments. Each department should have its own strategy that complements the institutional strategy. Project development is a successful way of initiating developments and achieving initial success. It is however, essential that such projects are not isolated, to ensure that lessons can be learned and applied across the institution. Senior level support is required to ensure that they can be sustained and scaled up across the institution. Indeed you may question whether a development that cannot be scaled up is worth the investment of staff time and institutional money. This may be one of the questions asked when making the business case for e-learning. Without this commitment, developments are likely to remain isolated; investments will not bear fruit and ultimately may be lost completely. Localised developments can realistically only be maintained for a limited period as they are likely to be dependent on the work of local enthusiasts. The wider factors affecting successful

implementation must be considered and this can only be done from an institutional perspective. This will critically include the institution's rationale for moving toward flexible delivery and the benefits that this will bring to the students.

Embedding Learning Technology Institutionally (ELTI) project (<http://www.jisc.ac.uk/elti>) found that institutions that were renowned for expertise in learning technology had:

- good collaborative networks;
- targeted support for teaching staff to

integrate learning technologies into courses;

- department/service teams with their own local planning to meet strategic aims;
- specialist learning technology development teams within IT services;
- a requirement of programmes of study to address student ICT skills;
- a requirement of departments to demonstrate pedagogical research/scholarship of teaching.

4.2 Recognition of new roles and responsibilities

Changing roles and culture

The development of e-learning will create new roles and different demands on staff. Staff can view these changes as threatening, often because e-learning is still seen as a cost saving opportunity. Academic staff roles will develop more as facilitators of learning. The new role of learning technology staff will appear in the institution including; new specialists (learning technologists, educational developers, educational researchers, technical developers, materials developers and project managers), learning support professionals (IT and library staff) and established professionals (academic staff). e-Learning will be developed by teams of these new professionals aligned with the subject expertise of the academic.

To support e-learning developments senior managers should recognise these new roles, provide suitable staff development and encourage collaboration and

communication across the institution.

Who are the key staff in your institution?

e-Learning requires successful collaborative activity which means identifying key staff who can inspire and lead in their relative areas. Central support services (such as IT Services, library, staff and educational development) are often dispersed across the institution, but the support needed for implementing and sustaining e-learning needs to be found from within all of these units. It is important to ensure that cognate areas are linked or working closely together to help encourage synergy in working practices. For example, are academic staff development, learning technology support and staff ICT training linked? Without coherence across staff development programmes e-learning will not be implemented strategically across the institution.

4.3 Reward and recognition for excellence in e-learning

For e-learning developments to be sustained, it is important that the efforts of academic and learning technology staff are recognised and rewarded. As long as research remains the most common measure of success and the key to promotion for academic staff, they will not be inclined to direct their time to developing e-learning.

With the growing emphasis on rewarding

and recognising excellence in teaching, you may need to consider how excellence in e-learning and in pedagogical research could be incorporated into your reward and recognition processes and structures.

Many of the English National Teaching Fellows are working in the field of e-learning and you may wish to reflect this national recognition for e-learning within reward programmes in your institution.

4.4 Staff development for understanding pedagogy as well as technical skills

e-Learning developments require a wide range of skills: skills that are unlikely to be found in one individual and skills that have to be developed. For more traditional learning and teaching methods academics are able to draw on their own experiences as students and share ideas with colleagues. Online tutoring, however, is a new experience for most academic staff, it is not yet widespread and most do not have personal experience of learning online, so staff development in the pedagogy of e-learning is therefore essential, as is staff development for those emerging into the new specialist roles such as learning technologists.

The Scottish Higher Education Funding Council funded an entire strand of projects looking at staff development in ICT, including skills for online tutoring, uses of ICT in the classroom and implementing large scale e-learning programmes across institutions (www.scotcit.ac.uk).

Staff development for e-learning needs to encourage reconsideration of traditional

approaches to learning and teaching. Much can be achieved, for example, by linking staff development activity to specific e-learning projects, but care should be taken to ensure that such projects do not become isolated pockets of activity within the institution.

Learning about e-learning by undertaking an e-learning course is another effective staff development approach. Learning online provides academic staff with the practical experience of facilitating and supporting e-learning, as well as ensuring that they achieve a baseline level of ICT skills.

This could be achieved by developing an element in your local teaching certificate programme, utilising external courses such as Learning to Teach Online (LETTOL, Sheffield College, <http://www.sheffcol.ac.uk/Lettol>) or the MEd in Networked Collaborative Learning (Sheffield University) or by purchasing a commercial e-moderating course that can be loaded into your local VLE.

5 The cost of e-learning

Key Questions

How are e-learning developments funded and supported? Are they funded centrally or locally? Should you establish a central support service for e-learning development, and how would this be funded?

Does your institution have the ICT infrastructure in place for e-learning?

How much does it cost to release academic staff to develop e-learning?

Will you need to consider different ways of accounting for staff time in the delivery and support of e-learning, for academic and support staff?

How are the IPR rights of individuals and of the University protected?

What costs might be transferred to the student through the introduction of e-learning?

What are the costs and benefits of e-learning and what models are available to measure these?

e-Learning was initially seen as an opportunity to cut costs and make savings in staffing, resources and space; though such savings are unlikely to be realised in the short term, if at all.

It is therefore important that institutions seek to understand the costs of e-learning and recognise how it should be supported. The costs of e-learning must be considered from the perspective of the institution, the academic and the student. Institutional costs for e-learning include

investment costs and development and delivery costs.

In addition, institutions must consider the potential costs of not investing in e-learning. With an increased demand for flexibility in access and delivery, increasing globalisation and more competition in higher education the long term costs of not investing may be the greater. It may be as Collis and Moonen (2001) suggest, in terms of flexible delivery...

"You can't not do it!"

5.1 Investment costs

The development of e-learning requires institutions to invest in their ICT infrastructure, the purchase of specialist software and licences such as VLEs, and in staff development. Some of these factors will also support traditional campus-based teaching and learning, so identifying specifically what has been spent on e-learning as opposed to other activities is difficult. It is important that the

institution has a business plan closely linked to its teaching, learning and assessment policy. It has been clearly shown that e-learning is not suitable for every course or module (Fielden, 2002) and it must be applied where benefits to the learning experience can be achieved.

Central to many institutions' use of e-learning will be the implementation of a VLE. This will be a major investment for



an institution, including initial purchase, annual licence fee, support costs and more significantly staff development and student support costs. The introduction of a VLE can lead to considerable cultural change and its selection should involve technical staff, teaching staff and, where possible, learners. An institution must also ask if it can justify supporting more than one VLE.

Institutions are now also investigating the developments of MLEs, which will require significant investment. This trend in HE is being supported and encouraged through Joint Information Systems Committee (JISC) funding (<http://www.jisc.ac.uk/mle>). MLEs require the integration of systems within an institution and have the potential to bring many benefits in terms of access to institutional information, communicating with staff and students, and administrative efficiencies.

The introduction of Personal Development Profiling, or Progress Files, will benefit considerably from such linkages. Such integration of systems will deliver to all stakeholders in the institution the information they need when they need it – whether that be the student logging on and

being able to find in one place their modules, their library record and a record of outstanding fees, or the registrar who will be able to receive an up to date profile of students studying, their progress and completion dates.

Given the wide range of skills involved in the development and support of e-learning staff roles will change and new roles will develop such as those identified by the ELTI project. Many UK HEIs have used recent Teaching Quality Enhancement Funding (TQEF) to create these roles. The presence of central learning support units is important for the development of e-learning within an institution. There is no one model for the development of such units, which are often quite small. Where institutions have adopted a wider policy these central units are often supported by staff located within departments. HEIs in the UK, Australia and the Netherlands are now investing in local learning technology support staff, within faculties, as well as in the central units. Such investment helps create local capacity and will help take e-learning beyond the project stage. This strategic investment enhances the sustainability of e-learning within an institution.

5.2 Development and delivery costs

The most significant costs associated with e-learning are related to upfront development of online materials and the support of students studying online. Development costs for multimedia resources have been recognised but e-learning is not based on the use of these alone. One of the key elements of successful e-learning is the facility for

students to communicate continuously with one another and within set times with their tutor. Support for both synchronous and asynchronous discussion is time consuming for the tutor – yet many institutions do not recognise time spent outside of the lecture theatre as teaching contact time.

It should also be recognised that the communication aspects of e-learning are relatively cheap compared with other e-learning materials and developing this aspect can release funds to support teaching contact hours that are spent online.

Within the UK most e-learning developments have been localised and based on the enthusiasm of the individual lecturer and/or learning technologist; without an overall strategy this makes costing of these developments difficult. If an institution is to transfer these localised, small-scale developments to an institutional level, the institution must address the issues of costs along with implications for culture change.

Identifying staff costs is particularly difficult when the system used to allocate staff pay is not related directly to the time spent working on activities. The contact hours model of calculating balance of duties is not sustainable with e-learning, where face-to-face contact is reduced but the amount of online support and tutoring can grow considerably. Linked to this, senior managers need to be aware of the potential implications for teachers' workload. Workload can become 'invisible' and gives the perception that online teachers are not doing the same amount as others – this can have a detrimental effect on those implementing e-learning.

e-Learning provides students with greater flexibility but also new demands. As a consequence learner support is critical to its success. Learner support has been considered the biggest cost of implementing e-learning, based on Open University (OU) research. The OU itself makes greater use of online methods to provide learner support than for actually delivering learning materials. With the widening access and flexibility that e-learning can provide institutions will need to look toward providing 24/7 learning support, to provide access to resources and ICT.

Learner support, from ICT staff, library staff and learning technology staff as well as academic staff is of great importance and needs special consideration and investment. Consideration needs to be given to how students who might be operating online will be supported. How will they get library support? How will academic staff deal with their questions? Will they be able to access student services?

Senior managers need to ensure that staff in these support services have considered these questions and that as part of the quality assurance of programmes using e-learning academic and student support are given serious consideration. Service level agreements may be necessary to manage the expectations of students who are learning online.

5.3 Copyright and Intellectual Property Rights (IPR)

The HEFCE Good Practice Guide for Senior Managers on Intellectual Property Rights in e-learning programmes (HEFCE,

2003a) warns HEIs not to underestimate the significant resource implications of e-learning developments.

HEIs should develop a policy on IPR exploitation and ownership. Support is available from HEFCE who have provided model contractual clauses, and from the JISC Legal Information Service (<http://www.jisc.ac.uk/legal/>). e-Learning can

expose the institution to greater risk, and therefore IPR issues must be prioritised.

Senior managers must make sure that the copyright officer or library is in a position to help the institution perform a risk analysis of copyright issues in e-learning.

5.4 Student costs

Research shows that student costs are increased with e-learning but these are often offset by a perception that it is enhancing their experiences (Ash & Bacsish, 2002, p. 29). The use of e-learning can lead to the transference of costs to the student. This may be reflective of the current environment within HE where students are expected to bear more responsibility for costs.

e-Learning can add costs through the need for ICT equipment, printing and connection charges but it does also have the potential to reduce travel costs and more importantly a factor that is not always costed, student time. With more students now engaged in part-time work to help

fund their time at university the increased flexibility afforded by e-learning will be beneficial.

Some institutions have considered requiring students to acquire a PC prior to studying with them such as the Wake Forest University Medical School. High levels of PC ownership have been advocated, such as in the Dearing report (NCIHE), though this may not lead to reduced costs to the institution. If students are to have their own laptops and PCs they may also require enhanced access to networks both on and off campus. Many institutions are currently experimenting with wireless networks in order to facilitate greater student access to networks.

5.5 What costing models are available?

Costing e-learning has been investigated in a number of projects in the UK and worldwide. The UK Costs of Networked Learning project, carried out by Sheffield Hallam University (<http://www.shu.ac.uk/cnl>) sought to determine the costs of networked learning to support conventional teaching or for new online courses. This project highlighted the importance of being able to record staff

time effectively. It took a multi-stakeholder approach and recognised that both staff and students incur costs and benefits in the use of networked learning. The costing of learning is likely to be difficult as agreement on what should be costed will vary. However, e-learning costs must be considered from the perspective of the institution, the academic and the student.

6 Assuring quality

Key Questions

What guidance is there on developing quality e-learning programmes?

What impact might designing e-learning courses have on my institution's models and procedures for quality assurance and validation?

Are there any implications for our assessment regulations?

As a senior manager, quality assurance and enhancement issues relating to e-learning in your institution must be a priority. It is important that policies are developed to provide a framework in which e-learning in your institution can be monitored. The use of e-learning adds to and changes the points of contact, means of accessing information, channels of communication and means of support for students. As e-learning becomes more prevalent in HE these will figure more in quality inspections. Guidelines are available from the QAA for Distance Learning that ask important questions applicable to the use of e-learning (QAA, 1999). A feature of quality assuring e-learning is the amount of work required before the course is validated and offered. Many more aspects of course delivery, support and administration need to be considered before the course goes live. It should be noted that a course that has already been validated and quality assured is not automatically validated in its online

version. A separate validation process must be gone through. The use of technology, especially in assessment, does introduce an element of risk that must be considered. A risk assessment must be completed on the use of computer aided assessment to ensure that contingencies are considered and that students are not disadvantaged if the technology should fail. Guidelines on the use of computer aided assessment should be developed and given institutional support.

Quality enhancement is important to support the rapidly evolving nature of e-learning. The LTSN and ILTHE (to be merged as the Higher Education Academy) provide a network for quality enhancement that should be exploited in your institution. Internal evaluation of your e-learning should also be ongoing to ensure resources are being developed and used effectively and provision made for dissemination of practice.

6.1 Plagiarism: prevention and detection

There are concerns that increased access to the Internet provides greater opportunity for plagiarism. The full extent of the problem is difficult to determine but new technologies are also being used to help tackle the problem. JISC are funding the

Plagiarism Advisory Service providing advice and online resources including piloting plagiarism detection software (http://online.northumbria.ac.uk/faculties/art/information_studies/lmri/Jiscpas/site/jiscpas.asp).

7 What does the future hold?

Key questions

Who is monitoring future developments in your institution?

What are your plans for MLE development?

What are your students going to expect in the future?



Only now is HE starting to discover and exploit the characteristics of e-learning - up until now it has provided an additional tool to enhance traditional forms of delivery. e-Learning does have the potential to create learning environments that can transform traditional modes of delivery. HEIs must also respond to the twin agendas of the knowledge society and lifelong learning, where access is provided to unlimited information and learning will continue for most throughout their working (and retired) lives. The consequence of this is that HEIs must look to adapt their roles, recognising that content is ubiquitous and that the role of educators is no longer simply presenting or providing access to content. Their role becomes that of designer and guide for an integrated learning and teaching environment.

Within wider society HEIs will see the continued growth of online training and provision. The future will also see the development of corporate universities such as the NHS University, which is due to launch in late 2003. In this instance the world's third largest employer will be creating its own online learning resources. What competition does this present to HEIs?

The development of standards in e-learning are encouraging new developments. Much activity is now

focusing on the development of learning objects (self-contained learning activities). These objects can be shared and utilised widely, within and between institutions and so offer the promise of improved cost-effectiveness. The development of meta-standards by the IMS consortia (<http://www.imsproject.org/>) is providing a framework to support usability of learning objects across systems thereby allowing distribution and sharing of learning objects.

New developments in technology will bring further changes, the early stages of which we are already witnessing in HE. Improvements in bandwidth mean that the range of media available for use on the Internet is now much improved without serious implications for the provider or the user, for example allowing video and audio to be used more widely. Video conferencing is available across the Internet as opposed to fixed ISDN lines, offering cheaper and more flexible opportunities to use this tool. In addition mobile technologies such as wireless, mobile phones and PDAs (Personal Digital Assistants) provide for greater flexibility in learning experiences. Wireless technologies will help to reduce networking costs and promote greater access across campuses and local area networks. PDAs can be linked to VLEs providing diary and scheduling facilities, communication links and simple data input. It is possible they could also link into wireless networks.

New mobile phone developments are providing Internet access, and SMS messaging is allowing for improved communication links with students. Such mobile technologies are likely to have an increased impact on the HE learning environment.

Crucially, students now entering university have a more fully developed grasp of the potential of these new technologies than their teachers and meeting student expectations in a world where differential fees exist will become increasingly important. The development of e-learning will also impact on the physical infrastructure of an HEI, through less reliance on lecture halls and more on online discussion; the need for more flexible space and the provision of new and different support structures.

The use of web based systems and a development in standards has encouraged the integration of systems leading to Managed Learning Environment (MLE) and portal developments. The integration of systems will help improve administration efficiencies and the transfer of information within HEIs and between institutions, with the growth of foundation degrees including FE and HE. Portals are a means of personalising access to information, courses and resources for students and staff. There is a great deal of activity to develop aspects of MLE and portal developments with many JISC funded projects in this area (<http://www.jisc.ac.uk/mle>). Indeed JISC have stated that *'the hard truth is that without a Managed Learning Environment a University is not sustainable into the 21st century'*.

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9 Resources

CAA Centre (Computer Aided Assessment Centre): <http://www.caacentre.ac.uk/>

ELTI Project: Embedding Learning Technology Institutionally: <http://www.jisc.ac.uk/elti>

Embedding Learning Technology Institutionally (ELTI) Project: http://www.jisc.ac.uk/index.cfm?name=project_elti

Lettol (Learning to Teach Online): <http://www.sheffcol.ac.uk/lettol/>

JISC Legal Information Services: <http://www.jisc.ac.uk/legal>

JISC Managed Learning Environments (MLEs): <http://www.jisc.ac.uk/mle>

JISC Plagiarism Detection Service (JISCPAS) http://online.northumbria.ac.uk/faculties/art/information_studies/lmri/JISCPAS/site/detect.asp

LeTTOL: Learning to Teach Online, Sheffield College: <http://www.sheffcol.ac.uk/lettol>

PORTAL Project: Presenting national Resources To Audiences Locally: <http://www.fair-portal.hull.ac.uk/>

QAA for Distance Learning: <http://www.qaa.ac.uk/public/dlg/contents.htm>

ScotCIT - C&IT Programme of the Scottish Higher Education Funding Council: <http://www.scotcit.ac.uk>

UK Costs of Networked Learning: project carried out by Sheffield Hallam University: <http://www.shu.ac.uk/cnl>

UKeU: UK e-University: <http://www.ukeu.com>

10 Organisations

ALT (Association for Learning Technology): <http://www.alt.ac.uk>

Aimed at staff working with learning technology ALT produce a range of useful guides and resources, run workshops and organise the annual ALT-C conference.

CETIS (The Centre for Educational Technology Interoperability Standards): <http://www.cetis.ac.uk/>

CETIS represents UK higher education and further education institutions on international learning technology standards initiatives.

HESDA (Higher Education Staff Development Association): <http://www.hesda.org.uk/>

Formerly the National Training Organisation (NTO) for higher education, HESDA is a membership organisation dedicated to supporting the professional development of all staff employed by universities and colleges.

ILTHE (Institute for Learning and Teaching in Higher Education): <http://www.ilt.ac.uk>

A range of resources and articles available on their members only web site, ILTHE also organise workshops on a range of learning and teaching issues.

IMS Global Learning Consortium, Inc: <http://www.imsproject.org/>

JISC (Joint Information Systems Committee): <http://www.jisc.ac.uk>

Responsible for the HE academic network JISC are increasingly involved in projects to develop the use of e-learning within FE and HE, for example MLE developments, plagiarism and legal issues (see Resources). JISC also supports the Resource Discovery Network (<http://www.rdn.ac.uk>), a range of online resources and publishes a range of guidance material including briefing documents for senior managers.

Learning and Teaching Support Network (LTSN) <http://www.ltsn.ac.uk>

A network of 24 subject centres based in higher education institutions throughout the UK and a single Generic Centre. It aims to promote high quality learning and teaching through the development and transfer of good practices in all subject disciplines through a variety of workshops and resources.

OBSERVATORY on borderless higher education: <http://www.obhe.ac.uk/>

The Observatory offers an environmental scanning facility to subscribers and enables them to keep abreast of borderless developments in higher education globally.

SCONUL: <http://www.sconul.ac.uk>

Represent the library community, an important support group for e-learning support.

SEDA (Staff and Educational Development Association): <http://www.seda.ac.uk/>

SEDA is the professional association for staff and educational developers in the UK, promoting innovation and good practice in higher education.

TechDis: <http://www.techdis.ac.uk/>

The JISC TechDis service aims to improve provision for disabled staff and students in higher and further education through technology.

UCISA (Universities and Colleges Information Systems Association): <http://www.ucisa.ac.uk>

Represent the IT support community and are therefore an important constituency in terms of e-learning support. Carry out surveys and run workshops related to e-learning issues.

The Learning and Teaching Support Network Generic Centre

Assessment, widening participation, e-learning, employability - these are just some of the issues that concern everyone in higher education today. No one person or institution has all the answers, and yet plenty of answers are out there. Within the UK's higher education institutions there are some excellent learning and teaching practices. Many of these practices are common to a number of subject disciplines and are easily transferable. The LTSN Generic Centre aims to broker this expertise and promote effective practices in learning and teaching across all disciplines.

The Generic Centre team is just one part of the much larger Learning and Teaching Support Network (LTSN). This larger network includes 24 Subject Centres whose role it is to address learning and teaching issues specific to their subject areas.

To find out more visit our website at www.ltsn.ac.uk/genericcentre

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