

**To: Heads of higher education
institutions in Wales; Principals of further
education colleges**

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**STATEMENT OF THE POSITION OF E-LEARNING IN HIGHER EDUCATION IN
WALES**

Circular W06/22HE '*Learning and Teaching Strategies 2004/05-2006/07*' referred to the developing HEFCW e-learning strategy. This circular provides information on the first stage of this development.

Annex A appends a statement of the position of e-learning in Higher Education in Wales. Institutions and other stakeholders are invited to comment on this statement, taking account of the questions in paragraph 65. The outcomes of this consultation will inform the development of a full e-learning strategy, with the aim of consulting in 2007/08.

Responses to this circular are invited by **15 March 2007**, using the form at **Annex B**. Please address your responses to Dr Cliona O'Neill, Senior Learning and Teaching Manager, here at the Council's offices.



**PHILIP GUMMETT
CHIEF EXECUTIVE**

STATEMENT OF THE POSITION OF E-LEARNING IN HIGHER EDUCATION IN WALES.

INTRODUCTION

- 1 This document is intended to provide an overview of the current position of e-learning in Higher Education (HE) in Wales. It provides a statement of the drivers for and barriers to the use of e-learning and the range of activities in which Higher Education Institutions (HEIs) are involved. Institutions are invited to comment on this statement, elaborating on the role they are playing in the activities listed, and providing information on additional activities in which they are involved.
- 2 The statement also provides information on measures of success in implementing e-learning, identifying points to which Welsh HEIs might aspire in relation to e-learning. Institutions are again invited to comment on these aspirations, listing any additional aspirations which they may have. In this context, the primary purpose of e-learning is considered to be to support and enhance learning, rather than solely to increase the use of technology.
- 3 This statement, and comments received on it, will be used to develop an e-learning strategy for Welsh Higher Education.

BACKGROUND

- 4 The report of the National Committee of Inquiry into Higher Education (the Dearing Report) noted in 1997 that 'the use of new technologies for learning and teaching is still at a developmental stage'. However, developments in the use of information and communications technology (ICT) in learning and teaching, now generally referred to as e-learning, have been moving at some pace in higher education, in the period of less than ten years since that report was published, although not all developments have been successful.
- 5 'The 'Deal for Students' section of the HEFCW Corporate Strategy, identifies one of the Council's core strategic aims as 'delivering the highest quality learning and related support'. The HEFCW remit letter 2006-07 notes that a programme of action should be drawn up to highlight areas where concerted activity at a national level can enrich the learning experience within individual institutions. It notes that 'ICT is likely to be amongst the areas that could benefit from innovative approaches being developed and tested'.

SOME ACTIONS TAKEN BY HEFCW TO DATE

- 6 The e-University project was launched in 2000 as a new vehicle for the delivery of higher education to students across the world over the Internet. The Council participated, albeit in a more limited capacity than HEFCE, and one Welsh HEI was actively involved in the project. A sum was made available on an annual basis to support the initiative as it applied in Wales. Following a review, the project was assisted to wind down its business in 2005.
- 7 In 2002 a Joint HEW/HEFCW Working Group considered e-Learning and made recommendations to both organisations about possible strategies for the future. Whilst the recommendations were not taken forward separately, the report provided a useful scoping of the position of e-learning in the sector.

- 8 Support for the development of e-learning in HE has been provided by the Funding Councils through funding contributions to the Institute for Learning and Teaching in Higher Education, established as a result of a Dearing Report recommendation, and the Funding Councils' Learning and Teaching Support Network. In 2004 these bodies were formed into the new Higher Education Academy.
- 9 The Council has also provided funding on an annual basis to the Joint Information Systems Committee (JISC). JISC was established by the Funding Councils in 1992 in recognition of the fact that information systems, and IT in particular, is an area where a central body can be particularly effective in providing value for money and in stimulating developments which might otherwise not take place. In addition to providing infrastructure, JISC provides advice and guidance on how best to use ICT, including in the support of learning and teaching, and promotes innovation in the form of development programmes, including in the area of e-learning.
- 10 Funding has been provided directly to HEIs in Wales through the Council's support for institutional learning and teaching strategies. This process has encouraged institutions to identify and report e-learning developments as mechanisms for:
 - enhancing the quality of the student learning experience by responding to the needs of learning;
 - supporting and introducing innovation in teaching and learning;
 - responding to diversity in learning and teaching matters.
- 11 HEFCW has part-funded the Welsh Video Network (WVN), which distributes and supports videoconferencing studios and other video facilities to all Further Education and Higher Education Institutions throughout Wales. It is one of the largest UK projects involving collaboration between the Higher and Further Education sectors. The WVN Rhwydiath (Rhl) project has been implemented across the university sector. This provides simultaneous translation equipment to enable dual language conferencing. These innovations have benefited Welsh medium teaching in HE.
- 12 The HE Academy commentary on Welsh institutional L&T strategies (2004/05 – 2006/07), published in October 2005 (Circular W05/60HE), reported a significant trend in concentrating resources towards e-learning. An increasing number of institutions was seen to be investing in the implementation of virtual learning environments. Focuses on blended learning and using technology for efficiency were reported.
- 13 Through its grant letters 2005/06 and 2006/07, the Higher Education Academy has been asked to advise the Council on the development of a HEFCW e-learning strategy and implementation plan, taking into account related developments in ELWa and the Welsh Assembly Government. This should include proposals to benchmark e-learning activities across Wales, to help HEIs benchmark themselves against the sector and help to inform their future e-learning investments.
- 14 At its meeting in January 2006, the Council agreed that HEFCW should join the JISC Capital Funding Programme, which is being established by JISC for HEFCE. The programme activity includes e-learning and e-infrastructure/e-research. The arrangements have yet to be finalised, however, consideration will be given to running a separate HEFCW funding line within the programme, which would be used to fund Welsh bids against calls for any activities. A sum of £500k will be provided for two years.

LITERATURE REVIEW

- 15 A variety of reviews, strategies, consultations and research has been published. This section aims to provide an overview of those relevant to Wales. The number of

publications indicates the extent to which the value of e-learning in learning and teaching and its significance to Wales have been recognised.

16 The HEW/HEFCW working group referred to above was convened to determine the position of e-learning in Welsh Higher Education in relation to the Welsh Assembly Government's 'Reaching Higher' strategy. The report identified:

- the widespread use of managed learning environments and the potential impacts of e-learning (Higher Education Wales and Higher Education Funding Council for Wales, 2002);
- potential threats resulting from competition from other online learning providers, including those overseas;
- the necessity to develop new staffing models in order to develop e-learning programmes effectively;
- that technological developments would permit the availability of richer content and more complex simulations through e-learning;
- that the expense of development was recognised as an issue which would require institutions to collaborate.

17 An aspirational e-learning strategy for Wales was developed as part of the Assembly Government's Cymru Ar-lein agenda (Welsh Assembly Government, 2003). It stated that 'the national e-learning policy should be: to demonstrate excellence in Connectivity, Content, Confidence and Competence in application of technology to learning.' It set out a number of objectives in relation to these four areas. These included:

- provision of 'high quality delivery infrastructure ... to enable all people wishing to participate in e-learning to do so at a location of their choice';
- facilitation of the acquisition or development of 'high quality e-learning programmes ... and the application of electronic resource discovery tools';
- promotion of 'interoperability compatible with the emerging international guidelines ... and UK developments ... to enable high quality learning experiences, and learning software which combines functionality with adaptability needed for different methods of learning';
- ensuring that 'learners receive high quality support which underpins progress, maintains motivation and addresses specific learning needs';
- development of 'competence in Wales ... which enables production of high quality web-enabled materials'; and
- ensuring that 'e-learning fully recognises the benefits to a bilingual nation in the design and delivery of learning'.

These objectives relate strongly to the e-learning implemented by Higher Education Institutions in Wales. The Welsh Assembly government is currently developing an action plan, which will have a more practical focus.

18 The final report of the joint Scottish Further Education Funding Council/Scottish Higher Education Funding Council e-learning Group (2003) concluded that 'e-learning was fundamentally about learning and not about technology' and development should reflect this. It also realised:

- the necessity of developing collaborative approaches;
- the ability of e-learning to transform the operation of institutions; and
- the role of the Councils in helping institutions to 'develop their approaches to learning'.

This report was reviewed in 2006 (Scottish Funding Council, 2006), identifying a series of outcomes in relation to the monitoring and support of e-learning activities, with a further review planned for 2007.

- 19 Education and Learning Wales (ELWa), now part of the Welsh Assembly Government, published a document summarising a consultation on 'E-learning in Wales: Current Developments and Stakeholder Views on Future Priorities' (ELWa, 2004). This viewed e-learning 'as part of a long term change agenda' and recognised the potential of e-learning to improve access to learning. However, it did not refer explicitly to e-learning in Higher Education. Six HEIs, among other stakeholders, responded to the consultation citing involvement in building practitioner confidence and competence, extending networks and distributing learning opportunities. In this context, the current Skills and Employment Action Plan (SEAP) for Wales includes a commitment from the Welsh Assembly Government to develop proposals for an integrated e-learning network in partnership with HEFCW, the Sector Skills Councils (SSCs), and other agencies. The position of e-learning in higher education will be key in taking forward these proposals.
- 20 The Higher Education Funding Council for England (HEFCE) published a strategy for e-learning in 2005 (HEFCE, 2005). This aimed to provide a framework for institutions to take their developments forward, in addition to providing a basis on which the Higher Education Academy (HE Academy) and Joint Information Systems Committee (JISC) could combine efforts with HEFCE. HEFCE aims to support HE in embedding e-learning and using technology to increase the flexibility and student-focus as part of lifelong learning. Other aims were to:
 - help institutions meet learner needs and institutional development aims;
 - support HE in strategic planning, change management and process development necessary to support the development and embedding of e-learning;
 - promote research innovation and development focusing on student learning; and
 - enable connections between academic and experiential learning.
- 21 The Department for Education and Skills published an e-strategy 'Harnessing Technology: Transforming learning and children's services' in 2005 (Department for Education and Skills, 2005). This described the use of 'digital and interactive technologies to achieve a more personalised approach within all areas of education and children's services'. It aimed to ensure that the whole education sector was able to use technology in an effective manner. It highlighted the role of the Higher Education Academy in supporting institutions to improve the student experience in Higher Education. The strategy specified proposals to facilitate wider access to and sharing of e-learning resources between schools, colleges and universities to meet student needs and achieve economies of scale. It also emphasised the importance of collaboration. Priority actions identified for the HE sector included:
 - Providing an 'integrated online information service for all citizens';
 - Ensuring 'integrated online personal support for learners';
 - Developing a 'collaborative approach to personalised learning activities';
 - Providing 'a good quality ICT training and support package for practitioners';
 - Providing a 'leadership and development package for organisational capability in ICT';
 - Building 'a common digital infrastructure to support transformation and reform'.
- 22 The HE Academy and JISC launched an e-Learning Benchmarking Exercise (led by the Academy) in September 2005 as part of HEFCE's 10 year e-learning strategy (see http://www.hefce.ac.uk/pubs/HEFCE/2005/05_12/). All UK HE institutions were invited to submit an expression of interest to participate in a Pilot Phase, Phase 1 and Phase 2.

Phase 1 of the benchmarking began in May 2006, and a call for Phase 2 will be sent out towards the end of 2006, to commence in May 2007. Interested institutions from Wales will be able to apply for participation in Phase 2. Institutions are supported by consultants appointed by the Academy. One Welsh institution participated in the pilot phase of this exercise, and two others are participating in Phase 1 (<http://www.heacademy.ac.uk/eLBPhaseOne.htm>). Initial feedback from the Pilot Phase suggests that institutions are using the Benchmarking Exercise as an internal audit to explore what and how e-Learning is taking place, including barriers to further embedding etc.

- 23 The Welsh Assembly Government issued a consultation in July 2006 on 'exploiting the power of ICT in Wales' (Welsh Assembly Government, 2006). Again, this was aspirational in nature, and it aimed to obtain ideas on increasing exploitation of ICT with resulting benefits to individuals, public services and the economy. It cited the increasing use of distance learning, 'where academic quality and ICT innovation are seen as key factors which will keep providers a step ahead of increasingly global competition.'
- 24 The Assembly's Department for Education, Lifelong Learning and Skills (DELLS) and the British Educational Communications and Technology Agency (Becta) have recently carried out work on 'Implementation and Development of ICT and e-learning in Welsh Colleges – 2006.'. The final report is not yet publicly available. It outlines the current status of e-learning in Welsh FE and thus identifies the exposure to e-learning which post-16 learners may experience prior to entering HE.

DEFINITIONS

- 25 Various definitions of e-learning have been used in the reports and publications referred to above. To date the term has been more focused on resources, rather than on learning. The HEW/HEFCW Group noted that:

'In undertaking its work, the Group ... was guided by the European Union (EU)'s definition of e-learning:

"... the use of the new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services, as well as remote exchanges and collaboration"

- 26 One definition of e-learning that has been used for Wales is 'the use of electronic technology to support, enhance or deliver learning' (ELWa, 2003). The ELWa document also cited the EU definition used by the HEW/HEFCW group.

- 27 The HEFCE strategy notes that:

'We have debated whether we need to adopt a specific definition of e-learning at all, since it might curb exploration and restrict diversity. However, we believe we should limit the scope of our strategy, to be sufficiently focused, to the use of technologies in learning opportunities. The Government e-learning strategy defines e-learning as any learning that uses ICT'.

- 28 It is therefore clear that there is no universally accepted definition of 'e-learning'. However, it is important to have a definition which is sufficiently broad to incorporate learning which is mediated electronically, whether online or offline, and which will not be rendered obsolete through the introduction of further new technologies. The Department for Education and Skills (2005) makes a helpful distinction between e-delivery and e-learning, and highlights the benefits of ICT in facilitating administration and assessment.

- 29 The term 'E-learning' is often used in a 'blended learning' context, which aims to maximise the pedagogic opportunities of all methods of learning, including formal, informal, traditional and those involving technology, in order to enhance the student learning experience. It provides a blend of time and places for learning, and can include mentoring, tutorials, lectures and distance delivery.
- 30 All the definitions cited above are potentially relevant to the range of e-learning activities carried out in Wales. Part of the task to be undertaken in developing the strategy is to arrive at a view in every Welsh HEI as to what is meant by the term 'e-learning', and its practical application.
- 31 The definition of Virtual Learning Environment (VLE) used in this document is 'any electronic space where learning can take place or where interactions occur', eg WebCT or Blackboard <http://www.ukcle.ac.uk/resources/trns/vles/one.html>.
- 32 The definition used for Managed Learning Environment (MLE) is 'the whole range of information systems and processes of the College (including its VLE if it has one) that contribute directly or indirectly to learning and learning management (<http://ferl.becta.org.uk/display.cfm?page=248>)'.

DRIVERS OF E-LEARNING

- 33 The key drivers of e-learning have remained constant since the HEW-HEFCW report, ie, that e-learning will 'enhance the delivery of a relevant, quality learning programme experience to learners both on campus and at a distance which meets their expectations and needs,' and 'protect the sector through maintaining current market share, growing the student base in existing markets, reaching new markets and developing new products.' Students and staff may also act as drivers of e-learning as they adapt to new learning methodologies and demand their wider use.
- 34 E-learning is used to improve opportunities in Third Mission Activities, such as engaging community groups and small and medium sized businesses (SMEs).
- 35 E-learning can facilitate and enable the extension of Welsh medium provision.
- 36 It is used to bring about change in enhancing widening access, by facilitating different learning styles, reaching new communities of students, breaking down barriers between education and work and enabling those who are unable or do not wish to engage in conventionally taught programmes to participate in HE. This helps institutions to meet targets set by the Welsh Assembly Government, which act as a further driver for e-learning activities.
- 37 E-learning can increase accessibility for all learners, including disabled and disadvantaged students. This increased accessibility enhances equality of opportunity and can help institutions to improve the learning experience for disabled students and meet targets set by the Welsh Assembly Government.
- 38 Another driver for e-learning is to develop and support lifelong learning, and enhance graduate employability. These have long-term benefits for learners.
- 39 The Credit and Qualifications Framework for Wales provides a flexible approach to learning, with credit provided for learning which is undertaken successfully through distance, blended or traditional delivery. This enables students to engage in more personalised learning. It can act as a driver for e-learning as it helps to enhance the flexible approaches facilitated through the use of technology.

- 40 Additional drivers include the potential for an all-Wales price negotiation for e-learning tools, including VLEs, authoring and assessment.
- 41 E-learning programmes and materials are expensive to develop, but once they are available they can be accessed by large numbers of students with no additional cost, unlike paper materials. Much online material is available free of charge and can be used to support and enhance teaching, thus improving the quality of the learning experience at no additional development cost to the institution.
- 42 Communication is easily achieved electronically, with a saving of time and cost on traditional methods such as post or telephone. This applies particularly to distance learners. E-learning also permits innovation, enabling new methods of teaching, assessment and support to be offered to students.
- 43 Cost pressures can also drive collaboration on e-learning across institutions. Such collaboration could enhance staff development across the Welsh HE sector and enable Wales to develop and maintain a reputation for high-quality e-learning. Collaboration could be achieved through a 'warehouse' model, as recommended by the HEW-HEFCW working group (2002), where quality materials would be developed by institutions, held centrally, and made available to all Welsh HEIs for inclusion in e-learning programmes. JISC has addressed this issue on a UK-wide basis by funding JORUM (www.jorum.ac.uk), a free UK-wide e-learning repository designed to host learning materials created for and by UK HE and FE. JORUM has also addressed many of the issues surrounding copyright and intellectual property rights. Alternatively, institutions could develop and provide or manage programmes for the whole sector, or by discipline, with shared curricula for programmes or generic skills being developed and supported by all institutions. These methods would ensure that provision is of high quality, and might provide opportunities for marketing programmes further afield.

DIFFICULTIES POSED BY E-LEARNING

- 44 E-learning increases the potential for competition from on-line providers, nationally and internationally, where distance learning models are used. Such competition also reduces the willingness of institutions to collaborate on e-learning developments. Such competition does not apply in the use of blended learning, where e-learning is used to complement traditional delivery, rather than to replace it.
- 45 E-learning provision must be of an appropriately high standard, which may require institutions to collaborate effectively to purchase or develop materials. This may entail overcoming concerns regarding competition between institutions. Use of materials which are of inappropriate quality threatens the sustainability of e-learning and retention of students. E-learning must also be scrutinised through the normal quality assurance mechanisms of an institution in the same manner as other provision.
- 46 Many forms of traditional learning have become more blended in approach, eg through the use of the internet for research, PowerPoint to support lectures and VLEs to host additional learning materials. The appropriate balance of traditional learning and e-learning varies with the subject area, tutor skills and learner needs. It is also important to recognise that formal and informal activities can contribute to the blend of learning. The balance must therefore be determined carefully, taking all of these factors into account. An inappropriate balance could result in students disengaging with the process, which would impact on student retention. Ensuring accessibility is also key to the successful implementation of e-learning.

- 47 Anecdotally it is reported that many students have a view that they wish to be taught by lecturers to obtain 'value for money' for their education. E-learning can be perceived by students as the utilisation of a cheap alternative by the institution. This view may become more prevalent with the advent of top-up fees.
- 48 E-learning may result in the necessity to develop new learning outcomes that follow from the new learning activities that the technology is designed to deliver; these outcomes can also include the acquiring of new ICT-based skills. Institutions might also need to consider the usefulness of identifying when peripheral activities become core, as this will determine how they define the application of e-learning and the blend of learning in their programmes, eg the use of Microsoft Word for preparing assignments is now generally considered to be standard, rather than a peripheral or e-learning activity.
- 49 Incompatibility problems are particularly significant in cases where it is desirable to import and export information, such as in the case of e-portfolios. JISC has done some work in relation to interoperability to help resolve issues that resulted from lack of common technical standards, which acted as a barrier to collaboration and sharing of resources and skills. As concluded by the HEW-HEFCW working group, all institutions need to invest in 'robust system infrastructure which conform[s] to international standards'. The infrastructure and technical standards must be kept under review in order to support high quality e-learning programmes and applications. Difficulties existed previously in relation to sharing materials when different VLEs were used. JORUM has enabled the collection and sharing of learning and teaching materials regardless of the VLE used. However, some users are reluctant to use technological teaching systems developed elsewhere, due to a lack of sense of ownership. Given the sophistication of some of these materials, overcoming such reluctance is vital.
- 50 E-learning also carries a high up-front financial burden which represents a significant barrier to its development and implementation. The costs of infrastructure and of developing good quality e-learning materials can be substantial. It is also necessary to ensure that infrastructure can cope with the numbers of students using materials simultaneously. There is thus a substantial element of risk and innovation involved in the development of e-learning. E-learning carries an increased need for staff development, which requires both financial input and time, in order to increase awareness of the pedagogical issues relating to e-learning and develop materials and support their delivery. Time and resources are thus frequently constraints to innovation in HE, and institutions may therefore reward staff engaging in innovative practices through allocating time for such tasks. However, if an institution's resources are diverted to develop e-learning, this may reduce the time and resources available for other areas, such as traditional learning.
- 51 E-learning carries a requirement for student development, to ensure that learners understand how to use the methods most effectively and are supported in doing so. There is a small proportion of students entering HE every year who have no experience of ICT. These students may need extensive support in order to engage in the use of technology through which any form of learning is supported, enhanced, or delivered. E-learning also carries a requirement for staff development to enable them to use this technology effectively for the benefit of students.

CURRENT PRACTICE IN WELSH HIGHER EDUCATION INSTITUTIONS

- 52 The HE Academy commentary on Welsh institutional L&T strategies (2004/05 – 2006/07) (Higher Education Academy, 2005) reported a significant trend of concentrating resources towards e-learning. An increasing number of institutions were investing in the implementation of virtual learning environments. Focuses on blended learning and using technology for efficiency were reported.

53 A wide range of e-learning components are used to varying extents in different programmes and institutions. Substantial developments have been made in relation to integrating e-learning into the infrastructure of institutions and into the curriculum. Technology is being used to support students, enhance communication and widen access. Aspects of e-learning which are being utilised successfully in Welsh HEIs are detailed below.

54 E-learning components that are used or under consideration in Welsh HEIs include:

- Online library facilities including online catalogues, databases, discovery tools, e-journals and e-books
- Digital resources eg EDINA Digimap, BIODIDAC
- Electronic course materials eg e-books, use of Virtual Learning Environments
- CD-ROM and web-based interactive simulations and environments
- Other online learning experiences replacing activities such as group work, field trips or residential trips
- Electronic submission, assessment and feedback
- Electronic administration of programmes
- Online support eg study skills, careers
- E-based Personal Development Planning or e-portfolios
- Asynchronous Computer Mediated Conferencing
- Wikis and Blogs
- Synchronous audio conferencing
- Webcasting, podcasting and video-streaming of teaching sessions

55 Infrastructure and Interoperability

The majority of institutions surveyed by the HEW-HEFCW Working Group on E-learning in 2002 used Blackboard as their VLE. These are often used to increase the flexibility of provision, eg by enabling students to access lecture notes if they have been unable to attend a lecture. There is also a Hidden Learning Environment (HLE), which is the interaction between students, staff and the MLE, and how the University responds to this type of interaction (eg fostering it, embracing it, attempting to manage it). It is important to acknowledge and identify this in order to maximise the enhancements gained through use of technology. The VLE can be used to track students' progress and students' and staff's interaction with the VLE, in order to identify how e-learning can best be supported and enhanced.

56 Curriculum design, delivery, development and standards.

A wide range of academic programmes utilises e-learning and e-delivery to enhance teaching and learning. E-learning is thus being embedded into a substantial variety of provision. E-learning is being used in a number of institutions to support bilingual provision in the design and delivery of learning. This can extend to the introduction of Welsh language interfaces to PCs and the provision of a Welsh or bilingual VLE. There has been recognition of the fact that it is not appropriate to use e-learning as a replacement for traditional learning methods, as content needs to be delivered in pedagogically appropriate ways and personal learning styles need to be accommodated. In order to address this, some institutions have opted for a system of blended learning, using technology to varying extents in the delivery of programmes, ranging from the use of PowerPoint and/or simulations to enhance face-to-face learning. Institutions are also increasing the flexibility of provision, thus increasing the student-focus of provision, by making lecture materials available on a VLE, or through offering distance provision of entire programmes. Some are also using electronic assessment and/or providing electronic feedback. E-assessment is defined by JISC as 'The end-to-end electronic assessment processes where ICT is used for the presentation of assessment and the recording of responses.' It may be formative,

summative or in the form of diagnostic testing/assessment. The advantages of e-assessment as described by Becta include greater speed and increased administrative efficiency; more motivational testing of knowledge and skills; and the provision of immediate feedback to learner and practitioner.

- 57 **Learning resources and networked learning**
E-learning materials are being developed and enhanced by Welsh HEIs. Institutions are providing students with much wider access to e-journals, e-books, online catalogues and databases. HEIs are using UK-wide online resources such as JISC's plagiarism detection service (JISC-pas), in addition to digital resources and discovery tools (eg ISI Web of Knowledge, Emerald Fulltext, EDINA Digimap). Online library facilities used include Web-based interactive simulations and environments to teach information literacy skills. Reusable learning objects and multimedia case studies are also being used by staff on a range of programmes. These innovations enable students to access alternative educational resources and gain exposure to new forms of educational content.
- 58 **Widening access**
E-learning is being used to reach out to schools and colleges, thus encouraging the widening of access to HE. It is also being used to facilitate work-based and/or distance learning, thus facilitating user mobility. In addition it is used to engage community groups and SMEs in Higher Education, thus improving opportunities in Third Mission activities. These innovations can be seen as helping to promote equality of opportunity, and provide educational opportunities for economically disadvantaged and less socially confident students.
- 59 **Student support and progression**
The use of technology is enabling electronic integration of enrolment, learning, transcripts and records. It is also enhancing course management, eg through provision of remote access to student handbook, email alerts for timetable changes and course administration, and provision of remote access to information support, expertise and guidance. Institutions are developing e-based systems of describing learning achievement and personal development planning (eg e-portfolio). These systems can contribute to the notion of lifelong learning by enabling the import and export of information from and to different stages of learning. Some institutions are providing students with a personal online learning space (eg to store coursework, references, etc.). This methodology is increasing the student-focus and flexibility of HE.
- 60 **Strategic management**
E-learning is being used to promote strategic management of resources, eg through linking learning and teaching, human resources, IT and estates strategies. Several institutions have embedded e-learning into their Learning and Teaching Strategies.
- 61 **Staff development**
Institutions are offering training and continuing professional development for learning and teaching staff to enhance their skills, knowledge and competencies for the provision of high quality e-learning.
- 62 **Research, evaluation and quality**
Research is contributing to the understanding and appreciation of the wider issues posed by e-learning. Benchmarking facilitates the evaluation of the relevance of the e-learning strategy to the work of the sector. It also contributes to the understanding of the assurance and enhancement issues for quality and standards raised by e-learning. A number of institutions are validating e-learning programmes with similar rigour to traditional programmes.
- 63 **Partnership working**

Institutions are working together through a variety of forums, including Blackboard User Group, Questionmark Perception User Group, Moodle Wales User Group, to help develop various tools. There is also a wealth of activity in project work being undertaken by Welsh HE, which highlights importance of collaboration and sharing of best practice. Many Welsh HEIs are working with E-Training Consortia, funded by KEF, in conjunction with Further Education Institutions (FEIs) and businesses and their representative organisations (particularly the SSCs). Several leading UK projects have arisen through this initiative to develop e-learning materials/courses which are tailored for particular industries and sectors. It is also important for Higher Education to explore the potential for establishing partnerships with other public services in Wales. This is particularly relevant in respect of the 'Making the Connections' strategy (Welsh Assembly Government, 2004) and the report of the Beecham Committee (Welsh Assembly Government, 2006b). Such partnerships could include working more closely with the NHS in Wales, which has well developed systems of e-learning. It is anticipated that, in the relatively near future, there will be an agreement on the sharing of the e-learning resources currently available within the health service in Wales across the wider academic community

MEASURES OF SUCCESS

64 Some measures which might be used to assess the success of e-learning developments, and which correspond to varying degrees of aspiration, are as follows:

- Staff and students are widely aware of the opportunities that e-learning can provide;
- The quality of learning and teaching is enhanced to address student needs and offer flexible and accessible learning;
- Students can achieve an enhanced range of learning outcomes through interaction with ICT based materials, services and support;
- Technology is integrated into all aspects of the student experience of higher education, including strategic systems (eg enrolment, management information system) and strategic planning, in order to enhance the student experience;
- An increase in student focus, accessibility and flexibility of delivery of HE programmes including distance learning, Welsh medium provision, and provision of learning materials in different formats;
- Students are able to communicate, gain support, and access information regardless of their location;
- Students are able to monitor and record their achievement in a form that they can use for personal and professional development purposes;
- Staff are provided with support to enable their continuous improvement in delivering a quality learning experience to students;
- Increased collaboration within and between Welsh HEIs and between sectors to enhance learning and teaching experiences, share knowledge and experiences gained, and support progression of learning methodologies;
- Perceivable benefits to the economy as a result of an enhanced learning experience for students.

An example of successful e-learning within an institution could be a programme which is delivered through blended learning in a manner which can be tailored to facilitate student needs, eg accessibility issues, or students who need to study part-time. Students can enrol on-line and have access to support on-line through discussion groups and through e-mail contact with the tutor, who is provided with appropriate continuing professional development opportunities. They can also download the reading materials they need, access the careers service, submit assignments on-line and check and record their progress regardless of their location. If they cannot attend a lecture they can access lecture notes via the VLE. Materials from JORUM and other collaborative resources are

used to provide high quality learning materials. Materials are available in Welsh. The students gain a high quality learning experience which results in profitable employment upon graduate.

DISCUSSION

- 65 HEIs and other stakeholders are invited to comment on this paper to ensure that it provides an accurate representation of the position in Wales. You are invited to discuss some or all of the following questions in your response.
- (i) Do you feel that this e-learning statement is an accurate and fair reflection of the practices being carried out in your experience?
 - (ii) What is the definition of e-learning that you use?
 - (iii) What do you think are the priorities of any future developments in e-learning?
 - (iv) What are the principal barriers to e-learning at your institution?
 - (v) What are the principal drivers for e-learning at your institution?
 - (vi) What measures of success are used in relation to e-learning at your institution? e-learning at your institution?
 - (vii) What scope is there for collaboration in e-learning, within Wales, across the UK or globally, and how could this be facilitated?
 - (viii) Do you have any other comments or observations?

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