Enhancing learning through technology in higher education across Wales

April 2012
Introduction

In April 2008 the Higher Education Funding Council for Wales (HEFCW) published Enhancing learning and teaching through technology: a strategy for higher education in Wales. This described a ten-year strategy that aimed to accelerate the mainstreaming of technology-enhanced learning and teaching provision, processes and practice, and to support Welsh higher education institutions in embracing new technologies and identifying how their application could enhance learning, teaching and the overall student experience. In September 2011 HEFCW issued a ‘refreshed’ strategy, based on an independent review. The review had concluded that the strategy had played a significant role in advancing technology-enhanced learning in the sector and that all institutions had achieved a good level of maturity in this area with some excellent examples of good practice. However, the strategy now places greater emphasis than before on the need for an evidence-based approach. Progress on the strategy will be revisited in 2013-14.

Institutions have engaged with the strategy through two main implementation initiatives. The most significant of these was a programme managed by the Higher Education Academy, which came to be known as ‘Gwella’ (a term whose connotations include ‘to improve’ or ‘to enhance’). Gwella was supplemented by a JISC programme entitled Building Capacity. This brochure highlights some of the progress made under these initiatives and features some vignettes of good practice in technology-enhanced learning (TEL) covering the first four objectives of the HEFCW strategy. The examples come from Gwella, Building Capacity and related activities. The institutions highlighted are not the only ones working in each area (for example, all Welsh universities are developing their assessment and feedback practice), but they serve to give a flavour of the range of activity going on across Wales.
HEFCW strategy objectives

Enhancement of learning, teaching and assessment, and of core processes:

- emphasising learning rather than technology;
- mainstreaming the role of technology in normal analysis, planning, design, implementation and evaluation processes;
- developing staff – ensuring that professional development opportunities are evidence-based and include scholarly and academic literacies appropriate to the digital age;
- enhancing other core processes through use of technology, e.g. student selection, enrolment, and assessment.

An enhanced student learning experience:

- evidencing the role of technology in meeting the needs of diverse learners and ensuring parity of learning experience by developing student scholarly/academic literacies. Engaging with students as partners;
- research is encouraged to inform decision-making and build capacity by identifying new opportunities for enhancement of the student learning experience.

Increased flexibility and accessibility of provision:

- technology has a role in increasing accessibility and flexibility above and beyond benefiting individuals with particular needs. It is important in supporting student transition and progression, including addressing equality and diversity, Welsh-medium learning, and fostering lifelong learning.

Effective collaboration and sharing of current and good practice:

- collaboration has become increasingly important in relation to the regional agenda, the establishment of the Coleg Cymraeg Cenedlaethol, and opportunities offered by cloud computing, shared services and open educational resources.

Institutional engagement with the strategy:

- a regular analysis and reflection process is encouraged to refresh the original benchmarking exercise in TEL.
TEL is now a key component of all institutional learning and teaching strategies (in some cases the approach to TEL is described in a separate strategy document, more typically it is now included in an overall learning and teaching strategy). In practice, Welsh universities are building on small-scale successes and innovation projects and starting to apply technology holistically in all of the core processes that support learning, teaching and assessment. Several institutions are now making rapid progress in integrating student and module record systems with learning and teaching systems.

**Cardiff University** is developing PALET (Programme Approval Lean Electronic Toolkit) to support a more agile and efficient approach to approval and review and ensure new programmes are developed on the basis of a sound business case.

**Cardiff Metropolitan University** has reviewed its quality assurance processes to ensure TEL is an integral element, staff with TEL experience are involved in all validation and review activities for flexible learning and academic staff are offered programme design sabbaticals to give time for innovation in TEL.

TEL is now part of estates planning in many places and Wi-Fi access has been developed rapidly. Innovative new learning spaces, such as The Quad at the University of Wales Trinity Saint David, or SMUBucks at Swansea Metropolitan University, support formal and informal learning and are proving popular with students and staff alike. **Bangor University** is equipping lecture rooms with Panopto lecture capture software and recordings are integrated with the VLE.

Staff development is, of course, key to ensuring good practice is spread and embedded. We now see many approaches in place for raising the awareness of TEL possibilities among staff. For example, Swansea Metropolitan has incorporated TEL into its staff appraisal process. At the University of Wales Newport the range of creative approaches to support critical reflection includes an e-learning retreat and delivery of a postgraduate certificate in higher education entirely online so that lecturers practice as they study. Newport’s Centre for Excellence in Learning & Teaching (CELT) is one among several such centres now rapidly expanding staff and student training.

Assessment and feedback has been a major focus of enhancement for all institutions including Aberystwyth University where initiatives include audio feedback and the introduction of large-scale summative assessment. Students at Bangor are actively involved in ‘feeding back and feeding forward’. **Trinity Saint David** is incrementally moving to centrally supported electronic assignment submission and feedback across both its campuses. The University of Glamorgan has a suite of integrated assessment tools including e-portfolios, e-assessment and plagiarism detection software and has implemented online assessment submission on a large scale. The Swansea University Web PA project investigated a variety of tools to support peer assessment in order to improve student understanding of assessment practice, develop skills of judgement and lighten academic workload. Swansea has also used a novel appreciative enquiry method to capture the student voice.
An enhanced student learning experience

Welsh universities are exploring a range of tools to enhance existing programmes of study and facilitate new pedagogic practice:

• Several universities in Wales are making use of lecture capture as a study aid. Swansea, for example, is developing the use of video and lecture capture with eStream. At Aberystwyth material is often posted in advance so the ‘lectures’ become more interactive and seminar-like. Trinity Saint David has introduced and promotes lecture capture and podcasting for both campus and distance students.

• Across the sector, Web 2.0 tools are being used creatively. At Aberystwyth, for example, podcasting, reflective journals, group blogs and wiki projects are being supported widely, as is e-PDP. Swansea has used podcasting to bring to life ancient classical sites. Cardiff Metropolitan has supported TEL projects across all schools. These have included developments in the use of student-created wikis, and video-based formative assessment.

• At Cardiff the Postgraduate Certificate in University Teaching and Learning will no longer simply teach what a blog or a wiki is, instead it will seamlessly incorporate activities requiring the use of such tools into the curriculum. Such an approach is consistent with a strong institutional focus on the raising of ‘learning literacy’ among both staff and students, with digital literacy as a core component.

• All institutions have developed student portals. Glyndŵr University, for example, has integrated a range of sites into a single student portal. Some, like Glamorgan’s, have an element of personalisation. Similarly, several universities have created comprehensive study skills websites. Bangor has adapted for its own students the content originally developed by the University of Leicester, and has translated this into Welsh.

• Specialist teaching software is being used in several disciplines. Glamorgan uses advanced simulation in Nursing, Aircraft Engineering, Health and Safety, Business, Theatre Design and student induction. Swansea Metropolitan is using Virtual Laboratories to overcome the problem of access to specialist equipment for geographically dispersed learners.

• Newport has created a dedicated team, the Centre for Digital Enhanced Learning (CDEL), which provides support to staff and students throughout the University. A range of free, open source and situational technologies are utilised, including Moodle. Scenario-based design methodology is encouraged to ensure that techno-centricity is avoided wherever possible.
Increased flexibility and accessibility of provision

Welsh universities are using technology to help make their education accessible to the widest possible range of learners and to offer flexibility for learners to study where and when it suits them, and work-based learning is an expanding field for many universities.

Aberystwyth carried out an extensive learner experience study, the results of which are being used to enhance learning through technology across departments, supporting students to develop digital literacies. Library and learning support services offer a rapid and flexible response by using social media such as Twitter, Facebook and instant messaging to handle queries and resolve problems.

Bangor is a major contributor to open learning resources in Welsh and makes extensive use of video-conferencing to tutor Welsh-speaking students throughout Wales in their native language.

Cardiff Metropolitan has worked with Improve, the Sector Skills Council for food and drink, to develop short courses tailored to labour market needs and uses Skype to connect with learners in the workplace. Its Cardiff School of Management is using web-conferencing software with students on a large-scale work placement development, and the School of Health Science’s Dental Technology programme is using a similar approach for work-based learners in dental laboratories, as well as giving these students remote access to video recordings of key skills and procedures.

Glyndŵr has reorganised into two institutes that use technology to deliver courses focused on the practical needs of industry often involving projects solving real commercial problems.

Healthcare provision at Cardiff is being enhanced by use of video-conferencing to allow students to interact with volunteer groups of cancer patients.

Swansea’s mobile provision includes the development of web apps and the introduction of Blackboard mobile. Swansea also has created the TRIO virtual learning environment, rich in Web 2.0 tools, to support learners in SMEs, social enterprises and the voluntary sector.

Trinity Saint David is investigating the use of e-book and tablet technologies to support students with specific learning difficulties such as dyslexia and dyspraxia. Tablets are also being trialled in academic management meetings as part of the University’s sustainability agenda.

To support widening access Swansea Metropolitan loans equipment such as netbooks, laptops and flip cameras to students and encourages them to blog about their use to provide self-help guides for other students.

Glamorgan is a partner in the Communities 2.0 initiative supporting community groups and social enterprises to help people in the most disadvantaged areas of Wales engage with new technology.

The Newport CDEL team is educating staff and students in the use of accessible technologies. This has the aim of ensuring that each individual has the confidence and competence to define their own online learning experience. Face-to-face sessions are backed up by comprehensive online guides made available in a new online student hub.
Effective collaboration and sharing of current and good practice

Welsh universities recognise the value of collaboration and sharing of good practice and have developed a range of effective networks and community resources.

Many universities have sites to support internal networks and are finding they are of value to the wider community. Examples include: the Aberystwyth's Nexus site for sharing of good practice in TEL, and the academic peer support network developed in association with it through good practice showcase events; Swansea Metropolitan's ICAN Collaborative Academic Network; TEL case studies from Bangor; and the outputs of the Glamorgan CELT (Centre for Excellence in Teaching and Learning), Swansea SALT (Swansea Academy of Learning and Teaching) and Cardiff Metropolitan LTDU (Learning and Teaching Development Unit). The overall message is that for effective enhancement, open channels of communication must be fostered – across departments, between staff and students, between senior management and other staff.

Gwella fostered a sense of community that is continuing through a Gwella sub-group of the UK-wide ELESIG (Evaluation of the Learners' Experiences of e-learning Special Interest Group) network. Glamorgan also leads a series of peer groups using the CAMEL (Collaborative Approaches to the Management of e-Learning) approach.

Technology is being used to support learning through a range of collaborative initiatives including the South West Wales Higher Education Partnership (SWWWHEP) project involving Swansea, Swansea Metropolitan and Trinity Saint David, which created a virtual academic library and an e-learning centre of excellence.

All Welsh universities are working together on Y Porth, an e-learning platform that offers a flexible way of sharing resources and collaborating on teaching through the medium of Welsh. Some resources have been developed collaboratively and some modules are delivered in parallel to students in different institutions.

Aberystwyth and Bangor deliver some collaborative teaching including for their joint Initial Teacher Training Centre. Some universities work extensively with partners in the FE and skills sector; and Glyndŵr and Trinity Saint David have migrated or transferred their VLE to a different virtual learning environment to facilitate collaboration with the 14-19 sector. Additionally, Trinity Saint David has developed a bilingual and switchable VLE to support learners through the medium of Welsh.

UHOVI, Universities Heads of the Valleys Institute, is a collaboration between Newport and Glamorgan and a range of FE colleges and training providers to deliver local provision in an area of low participation in higher education.

CELT at Newport has created a community of practice on LinkedIn, which is open to educators all over the world. This allows them to come together via asynchronous communication to share ideas, resources and undertake joint projects. Internally, CDEL has set up a community of practice for those needing to get the most out of Moodle for their subject areas. This internal community is informing the development of the next generation web-based learning environment.

Welsh higher education has a strong international dimension with Cardiff having a worldwide reputation and many other universities forming overseas partnerships.
The relevant documents concerning HEFCW’s Enhancing Learning and Teaching through Technology strategy can be downloaded from: http://www.hefcw.ac.uk/policy_areas/learning_and_teaching/ELTT.aspx.

These include the original 2008 strategy, the 2011 independent review, the refreshed strategy circular, and the Gwella and Building Capacity final reports.

The Higher Education Academy, Wales

In responding to the distinctive needs of Wales whilst recognising the importance of sharing across the UK higher education sector, the HEA have undertaken a variety of enhancement work in Wales and have a full agenda in Wales for the next academic year. The HEA is currently leading and coordinating the Future Directions for Higher Education in Wales quality enhancement theme; working with the whole higher education sector to enhance learning and teaching under the current enhancement theme, Graduates For Our Future and three work strands: Students as Partners; Learning in Employment; and Learning for Employment.

Their vision is for UK higher education to be recognised and valued by students and wider society for its provision of consistently excellent learning and teaching. Their mission is to use their expertise and resources to support individuals, disciplinary and interdisciplinary teams and higher education communities and institutions in general to enhance the quality and impact of learning and teaching.

For more information please visit http://www.heacademy.ac.uk/wales or email wales@heacademy.ac.uk

JISC Regional Support Centres: Stimulating and supporting innovation in learning

JISC Regional Support Centres (JISC RSCs) support learning providers across the UK in the effective use of technology. To find out how JISC RSC Wales supports higher education and other supported sectors in Wales, please contact support@rsc-wales.ac.uk or visit http://www.jiscrsc.ac.uk/wales. For more information about JISC see http://www.jisc.ac.uk/.

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Contact us

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