

Much technology, but limited impact: what progress has been made with Learning Technology in the Post Compulsory Education and Training (PCET) sector?

Jim Crawley

Bath Spa University

SWITCH

Abstract

This article reviews the progress which has been made in the uses of Learning Technology (LT) to support teaching and learning in the Post Compulsory Education and Training (PCET) sector. It argues that progress in terms of the depth and breadth of overall impact is limited and disappointing, despite significant investment from government and others. Across the PCET sector as a whole, despite progress in a number of areas, the use of technology is far from embedded in teaching and learning, and little real 'transformation' on any major scale has taken place. The possible reasons for this situation are discussed, as is the particular situation of teachers in PCET. The lack of progress is not, it is argued, due to any lack of willingness by staff to experiment and innovate, but to a range of other sector wide issues. The article concludes with some recommendations relating to how this important sector of UK education could move forward to a more positive future in relation to LT.

Key words:

Post Compulsory Education and Training; Further Education; Teaching and Learning; Learning Technology; e-learning; Information and Communications Technology; Continuing Professional Development (CPD).

Introduction

'Learning technology is the broad range of communication, information and related technologies that can be used to support learning, teaching, and assessment.'

(Association for Learning Technology, 2007)

For well over 30 years, the education sector has been exhorted to achieve dramatic changes and improvements in teaching and learning through the medium of learning technology (LT). Governments and others have set expectations high by using words such as 'transformation' (LSDA, 2004; DfES, 2005; Becta, 2008a) and 'step change' (Becta, 2008).

The statements below are representative:

'E-learning will inevitably transform all forms of education and learning in the twenty-first century.'

(Garrison and Anderson, 2003: p. 2)

'We want to use ICT to build a society where everybody has the opportunity to develop their potential. We will ensure that all those working in our education and children's services are able to use the technology well. From that baseline, we can effect a genuine transformation of provision in the future.'

(DfES, 2005: p. 10-11)

'A vision for 'Harnessing Technology' - A responsive, demand-led education system which uses world-class technologies to transform learning outcomes'

(Becta, 2008: p. 7)

Specially coined terms have even been created such as 'e-maturity' (Becta, 2008a, 2008b) to help track progress towards the goal of transformation.

This article is not attempting to suggest that there has been no forward movement, and some really worthwhile progress has taken place over time, including:

a significant level (£5 billion) of extra investment in ICT in the education sector as a whole from 1997-2007 (Selwyn 2008)

staff (in mainly the further education part of the sector) considering themselves to be significantly more confident, both with basic IT skills, and the use of LT in teaching than they were some five years ago (Becta 2008a)

a reduction in some of the key barriers to LT use such as access for staff and students to hardware, software and resources (Selwyn 2008)

successful attempts to engage hard to reach learners and support members of the community with disabilities more effectively (Crawley and Attewell 2001)

many case studies, projects, resources and research publications exemplifying innovations, achievements and successful uses of resources, techniques and technologies.

There has also been a good deal of progress towards agreement around some of the approaches to, or uses of LT which can enhance teaching and learning, and these include:

Taking LT developments and implementations forward in a step-by-step fashion, where management, technical and teaching part of an organisation work together in a planned manner, taking account of established good practice.

National approaches and programmes which take account of local circumstances and cultures, such as the 'ILT champions' scheme and the JISC Regional Support Centres.

Proper support for staff in implementing LT, where they have access to training in both IT skills and using LT in teaching, and peer support in their use.

The use of LT as a clear and rapid means of communication between and among teachers and students, particularly through the use of e-mail.

Taking advantage of the available richness of content and interactivity provided by LT to promote deeper learning.

Providing students and teachers with opportunities to work at times and in places which are of their choosing.

Supporting students with a disability or learning difficulty.

Engaging hard to reach individuals and communities.

(BECTA, 2004, 6, 8, and 8a; Crawley and Attewell, 2001; Crawley, 2002, 2004 & 2005; Davies, Hayward and Lukman, 2005; de Freitas, 2007; Salmon, 2004)

This article is not intending to minimise the gains made with LT, but rather to suggest that this progress overall does not add up to significant impact within and across the PCET sector.

Where are we with LT in 2009?

In 1972, the Carnegie Commission on Higher Education wrote:

One of the great disappointments of the national effort to date is that for all the funds and effort thus far expended for the advancement of instructional technology, penetration of new learning materials and media into higher education has thus far been shallow (1972: p. 47).

We are now some 37 years after that publication, and, as indicated in the previous section, some good progress has been made. We need to bear in mind however that there has been as much if not more funding, time, energy and effort put into policies and initiatives relating to LT as almost any other area in education over an extended period of time. Is it not reasonable to expect major tangible returns for that investment, such as clear evidence of improvement in recruitment, retention and achievement, or a simple framework for evaluating the impact of technology? Worryingly however similar comments to the Carnegie Commission's are not difficult to find in 2009 and they do not only come from LT sceptics. Becta, the agency concerned with developing the education sector's use of technology in the UK, has recently reported on progress with the UK government's 'Harnessing Technology' strategy, which has the stated intention of achieving 'a genuine transformation of provision in the future' (DfES 2005). Some key results are below:

Although investment in technology across the system has been significant, investment in its effective use has been less thorough. (Becta 2008a: p. 4)

Analysis of survey data against an e-maturity model found 25 per cent of responding providers to be e-enabled, 48 per cent enthusiastic, seven per cent ambivalent and 19 per cent late adopters. In work-based learning, 22 per cent of providers have embedded e-learning and some 60 per cent describe themselves as 'novices' or 'developing' users of e-learning. The PCDL (Personal and Community Development – author note) sector is at a relatively low base, with most adult learning providers described as 'on the lower rungs of the e-maturity ladder' (Becta 2008: p. 22).

It is worth commenting on these figures. Becta (2008a: p. 2) defines 'e-maturity' as 'the capacity of a learning provider to make strategic and effective use of technology to improve educational outcomes'. There are five key indicators of e-maturity which are student access; workforce skills; e-learning resources; management and strategy and use across the curriculum, so e-maturity is a significant indicator of LT impact.

There does not appear to be a national target for e-maturity across the PCET sector, but it is difficult to view just 25 per cent of FE colleges being seen as 'e-enabled' (not yet e-mature) as anything other than disappointing. In addition, 48 percent are seen as 'enthusiastic'. Enthusiasm is one thing, but planned and sustained implementation of LT with clear expertise and expectations in terms of impact are something quite different, and it should not be assumed that one leads to the other. Outside of further education, in Work-based learning and Personal and Community Development Learning, the situation is even worse, with very little expertise reported. One is left to ask would there not be a national outcry if the significant majority of the sector had retention or achievement data which was so low, even after decades of investment?

Neil Selwyn, a well-respected researcher and commentator on LT and e-learning, has recently reviewed the impact of 10 years of New Labour policy on LT in education, and he comes to a powerful conclusion.

New Labour can claim rightly to have made an unprecedented and sustained political commitment to technology in education, directing over £5 billion of funding towards educational ICT during the 1997 to 2007 period. Yet the fact remains that the New Labour ICT agenda has failed to achieve the much promised technological 'transformation' of the UK education system. (Selwyn 2008: p. 702)

How have we got here?

Selwyn (2008) describes our current situation as one where the 'valorisation of the idea of ICT' has progressed significantly more than the 'implementation of ICT'. When impact and outcomes are seen to be so essential in so many other areas of education, there is not even a fully developed model of impact assessment for LT in place across the

PCET sector. Have policy makers not noticed? Are they so impressed by the 'wow factor' of the technology as to not consider carefully what difference it makes? It is difficult to find evidence which suggests otherwise.

Technology changes and moves very fast, and its development appears to have often been undertaken through short term initiatives, many competing to demonstrate innovation, without learning sufficiently from what has gone before. A short term 'cycle of innovation' then starts to replace a more long term reflective cycle of learning and improvement, including analysis and learning from previous experience. The history of the development of LT in PCET appears to be littered with examples of short term projects which come and go, followed by more short term projects, each seeking to showcase the 'something new' they have encountered. Careful reflection and 'challenging of taken for granted assumptions' (Hillier 2005) leading to a developed and adjusted professional practice has rarely been encouraged to take place. Where 'new' learning is generated:

the new learning may look good superficially, but misses its objectives, and consequently gets a poor image because it does not deliver the promise. The full benefit of the new technology is never achieved because the good examples are submerged under the morass of the mediocre. (Rushby and Seabrook 2008: p. 200)

Baggaley (2008) broadens the discussion about 'where distance education went wrong' into a consideration of how we have not made the most of the huge richness and depth of resources and learning which current technology can now provide for all learners

The historian may ponder how late twentieth-century teachers could possibly have taken the most informative and far-reaching communication media ever invented and discredited them by such blunt, non interactive styles of usage. (p. 43)

If you do not believe this to be the case, take a look at any educational organisation's virtual learning environment, and consider how much of it operates an expensive container for static materials and resources, and how much provides interactive, participative learning which is in any way equal to that encountered in a lively classroom interaction.

Coffield, in his powerful recent critique of PCET (2008), takes a particularly pessimistic standpoint:

ICT tends to be the main form of investment in T & L (teaching and learning) that policy-makers support unequivocally; machines are, after all, cheaper than tutors, they can be worked day and night without protest from unions and, so far at least, they have not been known to answer back. (p. 48)

As if this was not a challenging enough picture in relation to embedding LT, PCET has its own particular issues and problems.

The context of teachers in PCET

Teachers are generally expected to lead the LT revolution. For example:

All education and learning professionals should have the skills and capabilities they need to use technology to meet the needs of learners. (BECTA 2008: p. 9).

The working circumstances of teachers in PCET in England however are particularly challenging, and can provide many barriers to LT use. A teacher in the sector often works across a variety of subjects, themes, areas and locations. They can work with one group and level of learners for a significant proportion of their working week, or range from entry level teaching to degree level students in one day. Syllabuses can change with almost no notice, as can priorities, managers and college structures. They are expected to be ready for inspection with little notice, and can be paid some 15% less than their colleagues in schools. They are required to gain HE level teaching qualifications, often with no remission, and with no previous experience of studying at such a level. The recent introduction of mandatory CPD for teachers in PCET is a welcome step, but there is already a queue of initiatives waiting to take up the 30 hours per year which is involved. Since 1992, when colleges became independent of local government, organisational regimes have become increasingly managerial and have shaped working and teaching relationships and approaches. This diversity makes for an engaging and interesting life as a teacher, but also makes the establishment of a clear, confident and defined professional status a major challenge for individual teachers and for the sector as a whole (Avis and Bathmaker, 2005, 2006; Crawley, 2005; Lucas, 2004; Shaiz and Gleeson, 1997; TLRP, 2008).

When staff in the sector are asked for their views the challenges faced are underlined:

Only 39.1% of staff say that they would recommend their organisation as a good place to work and this drops to 31.1% among lecturers and teachers. Furthermore, many respondents (42.2%) said that they don't feel valued by their employer. (LSN 2008: p. 1)

Coffield (2008) further explains the particular difficulties faced by teachers in PCET:

Tutors ... cannot create and sustain the conditions needed for students to become lifelong learners if those conditions do not exist for the tutors themselves; and presently they do not in post-compulsory education. (p. 19)

Despite their particular working context however teachers in PCET do help their learners achieve significant progress.

Research demonstrates that teachers in PCET:

Are focussed on teaching and learning.

Wish to give something back to the community.

Recognise that the interests of their students are best served by a positive, practical and learning-focussed approach.

Consider teaching as a socially worthwhile, enjoyable and challenging profession.

(Avis and Bathmaker, 2005, 6; Crawley, 2005; Garner and Harper, 2003; Hyland and Merrill, 2003)

When there are already challenges associated with engaging more teachers in the use of LT, the particular working context of teachers in PCET tends to add to these challenges more than other sectors of UK education.

Conclusion and recommendations

The challenges involved for all sectors of education in making the most of LT are formidable, and the particular circumstances of PCET make it especially difficult. The potentiality of LT to make a significant impact on teaching and learning remains, and staff themselves are often willing to get involved and try out LT (Crawley 2005). There are however major conceptual and structural barriers to achieving this potential which need to be at least reduced, if they cannot be entirely removed within PCET. What could then make a difference? Here are some basic (but major in terms of their implications) starting points:

Teachers and managers need to be involved staff as 'full, equal partners in the development, enactment, valuation and redesign of policy, because tutors and managers are the people who turn paper policies into courses, curricula and purposeful activities in classrooms' (Coffield 2008: p. 22).

The impact of technology on teaching and learning at classroom level needs to be thoroughly evaluated by teachers as they use it, and the results applied to improve teaching and learning.

A sustained and significantly resourced national initial training and CPD programme for teachers in the use of LT, needs to be initiated and followed through, and time given to teachers to take advantage of such training and support.

Approaches, techniques and understandings which have been shown to work previously, and which centre on interactive, student-centred learning need to be consolidated and fully made use of in future development.

If changes are not made to our current approaches, many more years of unfulfilled potential are likely and little sign of transformation. The potential of LT will never be achieved as long as it is treated like a means to an end. The route to good learning generally involves good teaching, and no matter how sophisticated the technology becomes, that is unlikely to change.

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