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'Transformation – what transformation' - Teachers using Learning Technology in Post Compulsory Education

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Much of the drive towards greater utilisation of learning technology at the start of the twenty-first century is framed within the language of hyperbole. The term '**transformation**' makes particularly regular appearances within policies, publications and research which are suggesting that major changes in the landscape of teaching and learning are within our grasp, and that the developing capability of learning technology is the central tool which can help to achieve such a transformation.

The examples below illustrate the almost mythical status of learning technology:

> 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: 10-11)

> E-learning will inevitably transform all forms of education and learning in the twenty-first century. (Garrison and Anderson 2003: 2)

The documentation inviting bids for a recent Post Compulsory Education initiative, funded via the Learning and Skills development Agency (LSDA), and entitled 'Teacher Training Transformation Project' asks:

> Do you want to help newly qualified teachers unravel the mystery of e-learning?
> Do you want to equip trainee teachers to deliver through the medium of e-learning?
> Do you want to transform teacher training so trainees can incorporate e-learning as a significant method of delivery? (LSDA 2004: 1)

Teaching staff are seen as a central component in the achievement of this transformation (in itself a welcome improvement on earlier tendencies to suggest we would not need teachers, as the technology would largely replace them). They are generally expected to be **ready**, **willing** and **able** to participate in and even lead the changes involved.

For example:

> Developing practitioner knowledge and skills is vital. This will allow teachers and other practitioners to better support ICT-based learning, including blending this appropriately with other learning experiences. (BECTA 2005: 8)

> Practitioner ICT confidence and levels of use in learning and teaching have shown considerable growth over the last two years, (BECTA 2005: 2) Individual learners … must have good, imaginative, modern and relevant teaching (including, for instance, the use of technology to promote personalised learning). (DfES 2005)

The professional experience and research of the author, on which this paper is based, whilst recognising the many positive achievements of learning technology, suggest that many teachers in Post Compulsory Education (PCE) are at present far from being either **ready** or **able** to genuinely transform their practice or the learning of their students. Despite generally being more **willing** to do so than could reasonably be expected, given their working circumstances, this research suggests that many teachers in Post Compulsory Education are actually still at or near the starting point, not just of using learning technology in their teaching, but in having a sufficiently broad range of 'personal IT skills' to be able to make use of learning technology. Indeed there is a suggestion, that not only are they a considerable distance away from taking up their anticipated place as drivers of the learning technology revolution, but that the gap between where they are now and where they should be may actually be getting bigger, not smaller.

The working context of a teacher in Post Compulsory Education
Who do we actually include as teachers in Post Compulsory Education? The definition we are using is Crawley's (2005: 12), which states:

> 'If you are therefore teaching in further education, adult and community learning, workplace learning or in 14-19 provision, but not employed by a school, you are working in Post Compulsory Education'

Instructors and trainers of uniformed service personnel and prison educators could also be added to this definition. This sector, often now called the Learning and Skills Sector, is as the definition above suggests, extremely diverse, and it is undergoing a particularly difficult time at present.

A teacher working in PCE will be expected to teach some 800 plus contact hours across the year, and deal with a range of changes, initiatives, targets, individual and organisational demands which would defeat many people. They are working with an extremely diverse and increasingly challenging range of students, and can teach 19 - 98 year olds in the course of one day.

Two recent examples illustrate what working in PCE is like:

In May 2005, the Government announced to PCE providers 'a scythe-like cut in funding for adult education and a demand that money be redirected into three newly prioritised areas.' which are 'basic skills, 16 to 19 year-old full-timers and adults without a Level 2 qualification.' (Independent Online 4/9/05)

Sudden shifts in funding are not necessarily that unusual in PCE, but this change was at a time of year when most planned programmes for 2005/6 would have been agreed, and prospectuses printed or ready to print. It gave organisations just three months to change what amounted to a substantial part of their provision to what was

in many ways completely something completely different. The key burden of making sure those changes happen of course, as always, falls on the teachers concerned. Many of those teachers may just be starting out on their teaching careers in September 2005.

Secondly an LSDA (2005) report has finally confirmed what most people working in the sector have known for some considerable time, but which is now recognised officially, which is that the funding gap between schools and PCE is considerable. The report confirms that difference to be 13%, or some £400.00 per full time student per year (£600,000 per year difference between an average sized FE college and school).

PCE and Initial Teacher Training
Initial Teacher Training in PCE has only been mandatory for some five years, and this requirement is restricted to new permanent staff working in Further Education Colleges. Many staff do undertake initial teacher training across the sector, but systematic penetration of training is variable, with the DfES estimating a need in the short term for some 20,000 teachers in PCE to be trained each year (DfES 2005: 16). There is no requirement for ITT to include training in the use of learning technology, or in personal IT skills, and even a new ITT structure for PCE announced in 2005 (DfES 2005) makes little mention of the need for ITT to include such training.

Teachers under pressure
What we have therefore is a sector where teachers have many priorities to occupy their time, many of them immediate, urgent and complex. They have less time and resources available to them to undertake any form of initial training or continuing professional development than other sectors of education, and the presence of learning technology in that training is a matter of chance rather than expectation. Their sector is chronically under funded, and their own institution may be constantly changing to a degree where the employment situation of many staff is anything but secure. Somewhat ironically, they will often be working in a teaching environment where there has been significant investment in IT equipment and resources, and many of them would welcome opportunities to be trained and supported in how to make the best use of that technology.

The question however many are asking is 'just how and where am I supposed to find the time and energy to fit learning technology in?'

The Research
The author has been researching this area for several years, and is now engaged in a doctoral study which will compare the situations of teachers in PCE across several establishments in England, the Netherlands and the US. The research has three main phases:

1   Audit of Personal IT skills, how they have been learnt and access to IT
This firstly involves establishing what are felt to be the basic 'personal IT skills' which any PCE teacher should need to successfully carry out their teaching, and there are ample examples to choose from, including those used for school teacher training, those included in basic IT qualifications, and those recommended in initiatives in

PCE such as the ILT Champions scheme. An audit tool has been developed to both survey teachers in PCE about their level of confidence in these personal IT skills, and how and when they learnt them.

Results
Some 200 PCE teachers have now been surveyed overall using versions of this audit tool, with approximately 100 more separately being asked when and how they learned their IT skills. The key results are: but the key trends are:

- The Personal IT skills of PCE teachers are steadily improving
- Some key areas such as internet skills (particularly using email) are improving, but skills such as use of multimedia and digital imaging appear to be remaining static (apart from a growth in use of digital cameras).
- These results consistently show IT skills as at a lower level than BECTA's national survey results (2001, 2003, 2004), and in some cases considerably lower. (BECTA's 2004 survey results rated teachers' IT skills as follows: inexperienced **25%**, intermediate **54%**, advanced **21%**. The most recent survey (2005) of over 50 teachers for the research in this paper rated as follows: inexperienced **44.4%**, intermediate **35.2%**, advanced **20.4%**. - **A difference of over 19% at the 'inexperienced' level, area of skill and of 18.8% at the 'intermediate' level**.)
- Most respondents have learned their skills in their own time, or with the help of friends and colleagues
- Training in IT skills appears to have achieved limited penetration
- Access for teachers to IT is improving

A more full account of the results can be found in Crawley 2003 and LSDA 2005. It must be emphasised that these results relate just to personal IT skills, not the application of those skills in e-learning and other areas. Even the most recent BECTA annual review (2005) has picked up on this problem, and concludes

> Even when the facilities, materials and support were present, teaching staff were often not themselves ready to make full use of e-learning.
> (BECTA 2005: 27)

2   Profiling the use of Learning Technology to support student learning
A further refinement of the audit tool for IT skills recently has been to ask respondents questions about how they are using e-learning in their own teaching. This extra section of questions has only to date been used with some 50 respondents, but asks questions about areas such as using technology in teaching sessions, embedding e-learning in their teaching, using equipment such as a data projector, and using VLEs.

Results
The key results are:
- 69.5% are 'intermediate' or 'advanced' in finding opportunities to use technology in teaching sessions
- 52.5% are 'intermediate' or 'advanced' in using a variety of media and technology resources in teaching sessions

- 58.7% are 'intermediate' or 'advanced' in students using technology in their sessions
- 50% are 'inexperienced' at embedding teaching in their sessions
- 67.4% are 'inexperienced' at using a data projector
- 80% are 'inexperienced' in using a VLE
- The results are somewhat below BECTA survey figures[1] (BECTA 2004 shows 45% as 'inexperienced' in e-learning skills, 38% as 'intermediate' and 18% as 'advanced'. Our survey shows 45.3% as 'inexperienced' – **9.3% higher**, 41% as 'intermediate' – **3% higher**, and 12.7% as 'advanced' – **5.3% lower**)

These figures, although from a small sample, are worrying, and the following statement in the latest government e-strategy document appears extremely optimistic

> 'most teachers and lecturers now feel confident in using ICT effectively in teaching and learning' (DfES 2005)

3   Practitioner reflective accounts relating to learning technology
This area of the research will not be developing fully for some time, but in preparation, our recent survey asked the 50 plus respondents questions about their attitudes to learning technology, and provided an opportunity to make any comments they wished about their own teaching situation.

Results
The key results are:
- 81.5% felt LT helped keep them up to date 'quite a lot' or 'very'
- 73.9% felt LT engaged the interest of their learners 'quite a lot' or 'very'
- 81.5% felt LT helped keep them up to date 'quite a lot' or 'very'
- 73.9% felt LT engaged the interest of their learners 'quite a lot' or 'very'
- 73.9% felt LT produced better learning materials 'quite a lot' or 'very'
- 69.5% felt LT improved their general teaching 'quite a lot' or 'very'
- 63.1% felt LT was useful for evaluating learning programmes 'not at all' or 'a little'
- 58.7% felt LT improved administration 'not at all' or 'a little'
- 58.7% felt LT drew in new learners 'not at all' or 'a little'

Not all made comments about learning technology but of those that were made, conditional support or strong support for technology were in the clear majority (86.1%). Although they were generally supportive of the use of LT, various needs, conditions and observations were identified, the most often cited of which were time and training to develop.

Two examples are:

> I do think that learning technology can help to teach and consolidate what is already being taught in a dynamic way that is helpful but only if teachers are confident in their skills in using it and do not let it detract from their learning goals.

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[1] BECTA themselves (2004) suggest their figures are somewhat unreliable

would like to use more but find I don't have time to use ilt as much as I would like within lessons. I would like to use moodle but don't have the time to use it correctly and properly so I'd rather not use it at all

Summary and conclusion

What the research to date has strongly suggested is that teachers in PCE are not well placed in terms of their own personal IT skills, or the degree to which learning technology is being applied to support student learning. Major skill gaps are present, and current training, either initial teacher training or CPD does not appear to be impacting significantly on the situation. Many teachers appear to be far from ready to embed learning technology into their teaching.

On the positive side, the technology infrastructure appears to be improving, and the attitude of the teachers concerned to technology which has emerged from this research (which has been consistent across all three countries) is generally positive and supportive, although conditionally.

Given the pressures of the sector, we may have expected a workforce who would need to be dragged screaming into the digital age. That is certainly not the case.

The key to the success in all sectors, and particularly in PCE, will be down to training and support for the teaching staff.

The government recognizes this, and is promising much:

> We will provide initial training, professional development and support in each sector, to make sure that all staff have the basic grounding, and are able, throughout their working life, to upgrade their skills and knowledge in the use of ICT and e-learning. (DfES 2005: 31,2)

We await the result with anticipation, and will monitor them in the later stages of this research.

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