
Further education in transition

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This paper provides an overview of the national perspective in further education (FE) developments in Information and Learning Technology (ILT) since 1992, from the unique perspective of a number of key staff members at the British Educational Communications and Technology Agency (Becta) and a member of staff with a role in quality improvement in the Further Education Funding Council (FEFC). It sets in context the research reported in this section in the papers by Cockrill et al. and Caven-Atack.

FE has been in a state of transition for almost twenty years. Major changes have taken place which have affected its status, funding, partnerships and its 'customer base'. But it has always remained integral to local communities in providing a wide range of educational opportunities. Information and Learning Technology (ILT) has played a part in supporting teaching and learning in FE but, until recently, has rarely been part of any well-developed strategy. This positional paper provides an overview of FE during recent years of transition and change and describes the important new government investment that is supporting the development of a network infrastructure and a range of supporting activities to enable widespread use of ILT across FE for teaching, learning and management.

Background

In 1992 the Further and Higher Education Act created the English further education sector by taking colleges out of LEA control and bringing into existence the Further Education Funding Council (FEFC). As in higher education (HE), similar funding arrangements exist for further education in Scotland, Wales and Northern Ireland.

In 1998–9 the FEFC allocated £3.09 billion to a total of 437 colleges, 52 higher education institutions (HEIs) and 230 adult education centres. The majority of this funding was allocated to FE sector colleges ranging from small sixth-form colleges to large urban multi-site general FE colleges. They include specialist colleges of agriculture or art and design

and a small number of residential colleges for adults. Radical changes to the management of further education, increasing links between the sector and work-based learning, are planned for April 2001 with the launch of the Learning and Skills Council.

Both the Kennedy (1997) and Fryer (1997) reports, as well as the more recent White Paper, *Learning to Succeed* (DfEE, 1999) have recognized the important role of further education in building the new culture of lifelong learning. Significant changes resulting from these developments have already taken place. For example, the sector has delivered a 15 per cent rise in the number of funded full-time equivalent students and a 13 per cent efficiency gain in the last four years (FEFC, 1999a). However, public perception of FE is inevitably coloured by personal experience of FE provision, which may range across many different levels and subjects. A wide span of provision is one of the sector's key strengths but also a weakness since it can make the sector difficult to understand.

Information and learning technologies in further education

The Labour government's focus of lifelong learning has meant that FE is in the spotlight as never before, with the challenge of widening participation and raising standards at the same time. The Chief Inspector's Annual Report on FE (1998-9) notes:

An increasing number of colleges are also committed to the development of 'inclusive learning'. This ensures that meeting the needs of individual students is paramount and that there is coherence in the design of learning programmes, teaching and support activities. The most successful colleges are able to use such strategies to raise levels of achievement while, at the same time, widening participation in further education by attracting under-represented groups within their community.

In further education, therefore, as in other sectors, there is a drive to raise standards, widen participation and improve the skills of the workforce in accordance with government objectives. Many colleges make use of information and learning technologies (ILT) to underpin these targets, though the use of technology to support learning is far from universal. It has not always been included in college development planning and has rarely been part of a strategy to help develop independent learning. There are frequently less than ideal learning environments to accommodate changes in teaching and learning. Tutors may also lack skills, confidence and competence in the use of ILT, and technical support is not always strong.

Many colleges have made the strategic decision to deliver significant parts of course programmes using intranet and Internet technologies. A recent study (Becta, 1999) found that two of the main uses of ILT are to provide easy access for students to learning resources on intranets and to aid student retention and achievement by providing for individualized learning styles. Remote access to materials and online course delivery are particularly valuable for part-time students, adult returners and the growing number of workplace-based students in SMEs. However, creating a potentially rich resource bank can often be beyond the means of a single institution. Collaborative developments among college consortia such as the FE National Consortium (FENC) and the Language Development Network (LDN) have provided an important response to staff needs. However, despite these exemplars of good practice and collaborative activities, the use of ILT to support teaching and learning has tended to remain the province of the individual enthusiast and a modest number of the more innovative and far-sighted colleges.

The ILT survey (ibid., 1999) of colleges undertaken by Becta on behalf of the FE Funding Council revealed some interesting statistics. While the median ratio of full-time equivalent students to computers was approximately 8:1, this figure masked huge variation. While one-fifth of colleges provided better than one computer for five FTE (full-time equivalent) students, at 3 per cent of colleges, sixteen or more FTEs shared every machine. Furthermore, the corresponding median figure for Internet-connected computers was in excess of 20:1. Staff/PC ratios were typically rather better at 6:1.

The National Learning Network

In its first comprehensive spending review, the government recognized the urgent need to give additional support to the sector to ensure that all colleges are properly equipped for the computer age. In 1998, £74 million of government funding was allocated over three years for IT infrastructure development in FE. In addition to the estimated college current annual IT spend of £100 million, this is the largest investment made by any government for IT-related activities within FE. The FEFC's ILT committee of college principals and sector experts (known within the sector as the FE ILT committee) has carried out strategic planning for the investment. The committee produced an ILT development strategy for the sector entitled *Networking Lifelong Learning*, endorsed by the FEFC in June 1999. Two implementation task groups on 'Infrastructure' and 'Support' have consulted across the sector and produced implementation proposals. The resulting report, the FEFC's *ILT Implementation Plan* (FEFC, 1999b; FEFC, 1999c) provides a comprehensive strategy which aims to deliver effective integration of ILT into FE learning and teaching.

Dealing with the needs of more than 420 colleges and approximately four million students, the aims of the FE ILT committee's strategy are ambitious. It is intended that ILT will be exploited to:

- enrich the learning experiences of students;
- improve teaching methods and standards;
- facilitate better management practices; and
- assist in the development of a more IT-literate society.

The FE ILT committee has not worked in isolation: new partnerships have been formed to help realize these plans. The FEFC has become the fifth funding partner of the JISC (Joint Information Systems Committee) and now has sector representation on all JISC committees. In future, all JISC support services and programmes will consider the needs of further education, and a small number of additional staff are being recruited by the JISC with experience of further education.

Key FE sector organizations, such as Becta, FEDA (Further Education Development Agency) and NILTA (National Information and Learning Technology Association) are also working together to help establish the FE ILT committee's blueprint.

Local and national strategic planning

As noted above, there have been relatively few examples of colleges explicitly building ILT into their strategic planning for teaching and learning. The National Learning Network (NLN) initiative requires colleges to revisit their strategic planning to address this issue.

Colleges are required to develop and submit for checking an ILT strategy document. Support for this activity in the form of guidelines and examples of good practice have been provided, but it has been made clear that for colleges to qualify for future funding a sound ILT strategy must have been submitted. Plans need to indicate the areas in which colleges are using the additional funding to supplement their own normal spending on information and learning technology.

As Figure 1 indicates, an analysis of ten current government-funded ICT initiatives (DfEE, 1998) suggests that their focus is predominantly on hardware and connectivity. Nearly four-fifths of the total funding (some £1.6 billion) is devoted to infrastructure acquisition. However, the general lessons of previous IT investment suggest that for change to take root, a significant portion of the available funding has to be allocated to the 'softer' aspects of innovation – specifically, content development and staff training in continuing professional development (CPD). The FE ILT committee's planning has taken note of these lessons and attempts to address the need for investments in both learning materials and staff development.

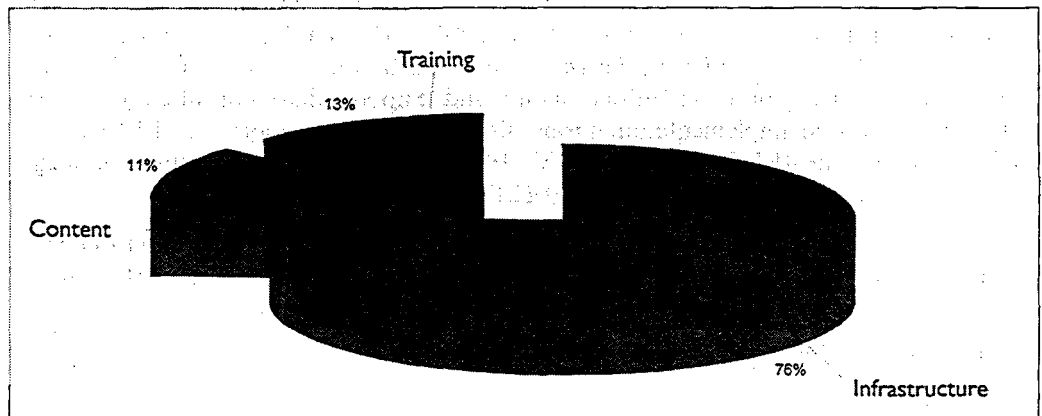


Figure 1: Analysis of ten current government ICT initiatives.

Widening participation: providing the infrastructure

The fundamental 'backbone' to the FE ILT strategy lies in connecting all colleges to a network that will give them access to electronic materials and educational content and information. The Secretary of State for Education, David Blunkett, used the phrase 'National Learning Network' to describe this infrastructure, which will include higher education with links to the University for Industry (Ufi), National Grid for Learning (NGfL), museums, libraries and other networks.

Rather than create a separate electronic network for FE colleges, the FEFC has elected, through its membership of the JISC, to base its developments on the existing JANET network. UKERNA is managing the connections and each college will have a minimum bandwidth of 2 Mb per second delivered to its door by spring 2001. Nine recently established regional support centres (RSCs) will provide technical support, training and awareness to colleges. Funding was made available in the first year of the initiative to

provide vendor-specific training for technicians in colleges, to improve local area networks and to facilitate the purchase of equipment for designated ILT 'champions'. In later years, further funding will go directly to colleges to enable equipment update and to facilitate the licensing of managed learning environments (see below).

Staff development

Over the past four years there has been a drive to improve staff awareness of the potential of ILT and to assist colleges in their use of ILT. Many colleges, through initiatives such as the Quality in Information and Learning Technology (QUILT) staff development programme and European-funded ADAPT projects, have been involved in innovative developments using ILT to support teaching and learning. Some examples of college good practice in ILT include work done at Telford College of Arts and Technology, winner of Becta's 1998 Beacon Award, initiatives at Wirral Metropolitan College, with its 'Learning Web', and at Gateshead College, with its development of specialist courses for the deaf taught by deaf tutors through the use of video conferencing.

A substantial training programme to develop 'ILT champions' at both managerial and curriculum level has been devised by Becta and was delivered throughout summer 2000. Funding given direct to colleges will be used to free up time for their 'champions' to cascade their newly acquired knowledge to colleagues. Manager-level champions, on the other hand, will be well placed to assist their college in implementing its ILT strategy.

An important aspect of the broader staff development programme under the NLN is the plan to provide a set of ILT modules mapped against the FENTO (Further Education National Training Organization) standards framework, to give staff appropriate descriptors for goals within programmes of continuing professional development. This is necessarily a longer-term intention because of the involvement of the NTO and awarding bodies throughout the UK, but indicates the depth of thinking that the NLN initiative has promoted. Complementing this programme £5.45 million from the Standards Fund has been allocated to colleges for ILT staff development.

Learning materials exploitation

Quite apart from new materials under development for the UfI, some electronic learning materials already exist for use in colleges but the quality is extremely variable; many have little pedagogic foundation and offer little or no interaction for the student. The networking of colleges, however, opens up new opportunities for the development of online learning materials that can be accessed by large numbers of students and staff.

Substantial funding has therefore been allocated under the NLN to commission a range of new high-quality ILT materials, which will be made available free or virtually free at point of use throughout FE. The selection of the materials to be developed has followed detailed mapping and auditing of existing college materials use by FEDA. The design of a suitable 'repository' for newly created materials is also under consideration following an NLN feasibility study conducted by NILTA.

Many colleges have a programme of 'in-house' ILT materials development, but given the relatively small numbers of students undertaking each college course and the considerable investment required to produce high-quality learning resources, many find the exercise too costly and time-consuming. The FE ILT committee, however, considered it essential that

an element of the learning materials development funding be devolved directly to colleges. The expectation, based in part on the experience of the earlier QUILT programme, is that this funding will help increase the ability of staff to make fluent use of new and emerging technologies and to create or adapt learning resources for diverse groups of learners. Without the development of these skills, the opportunity to widen participation, enrich students' learning experience and equip them for the new technology age will be lost.

In parallel with the materials exploitation, through its subcommittee on integrated environments for learners (JCIEL), the JISC and other NLN partners are working on a detailed specification for the developer community of managed learning environments (MLEs) both in terms of functionality and standards for interoperability. The issue of standards is integral to all NLN development activities and all new learning materials will be produced to open standards to enable portability, accessibility and transferability. Close work with the Ufi has taken place to secure the 'fit' between NLN and Ufi materials.

An evaluation strategy to measure the success of the National Learning Network has already been established and set in motion by the DfEE. As well as evaluating the effectiveness of the individual projects, more than forty colleges are taking part in a programme to measure the impact of the initiative, the new connectivity and the way that colleges use ILT in their teaching and learning.

Conclusion: looking forward

No development in ICT is without its attendant issues, and no one expects the NLN initiative to be without problems. Whilst the programmes of staff development have been created and a measure of funding secured to enable college staff to participate in them, so far the scale of the funding is insufficient to the task. It does not begin to approach the £400 per head allocated for the training of school teachers and librarians under the New Opportunities Fund's programmes in support of the National Grid for Learning and the People's Network.

Equally, the amount of funding for the development of new ILT learning materials falls far short of the scale of the HE Teaching and Learning Technology Programme (TLTP), and at current prices will purchase only a few hundred hours of course time. Finally, IT equipment and networks require recurrent investment – 'one-off' funding is not a long-term solution to their acquisition. However, the scale of the funding that has been made available to FE under the first round of the comprehensive spending review certainly reflects a genuine intention on the part of government to move forward with the provision of online learning. As such, the funding has proved to be a tremendous morale boost to those colleagues who have – through their vision and energy – sought:

- to create wholesale change in the sector's learning offering;
- to confront the need for flexibility and custom-responsiveness; and
- to play a key role in addressing the UK's skills deficiencies.

Thus the National Learning Network, while still in its infancy, is helping to change the face of vocational education and training in England and to lend its weight to drive forward change, opening up new options for lifelong learners nationally.

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