**Harnessing Technology:
Annual sector survey of FE colleges 2008–09
Final Report**

Contents

1   Introduction

1.1   Context

This project continues the sequence of annual surveys of further education (FE) colleges. Annual surveys of technology adoption and use in schools commenced in 1999. Similar annual surveys started with FE colleges in 2001 and extended to other providers in the further education and skills sector in 2007, covering FE colleges,[1] adult and community learning (ACL), work-based learning (WBL) and offender learning. As in 2007, in 2008–09, Becta commissioned separate surveys of each part of the further education, skills and regeneration (FESR) sector.

In the FESR sector, the level of e-maturity[2] of colleges has changed little over the seven years these surveys have been conducted, staying at around 25 per cent. The recent surveys of personal and community development learning and WBL providers showed that the levels of e-maturity in these areas are 18 and 35 per cent respectively. Equipment levels are generally satisfactory and further work is needed to identify those factors in the use of technology that are transformative for providers and learners.

The programme of work for the 2008–09 survey was designed to:

- gather information on the use that institutions and staff in FE colleges make of technology
- identify and analyse issues affecting the use of technology in FE colleges
- utilise data from existing surveys to identify national trends and issues for providers in their use of technology
- relate the findings of each survey to priorities identified in: the revised e-strategy, *Harnessing Technology: Next generation learning 2008–14*;[3] – the FE and skills implementation plan, *Next Generation Learning: The implementation plan for 2009–2012*;[4] and other national priorities affecting the different parts of the sector or the system as a whole.

The purpose of the surveys is to support Becta to continue to monitor the use of technology to support business procedures and learning across the educational

---

[1] *Measuring E-maturity in the FE Sector*
http://partners.becta.org.uk/index.php?section=rh&catcode=_re_rp_02&rid=14533

[2] Becta defines e-maturity as 'the capacity and capability of individuals and organisations to exploit the power of technology to improve educational outcomes, measured across a number of dimensions including provision, practice, leadership, management and local strategy'.

[3] Becta (2008).

[4] Becta (2009).

system, and to continue to monitor the implementation of the Harnessing Technology (HT) strategy and its continued refinement. Becta will use the research outputs to influence and inform the development of strategies and policy for the period through to 2014, and influence the design and priorities of the forthcoming 2009–10 annual survey.

1.2 Scope

The survey assessments aim to measure progress towards the system outcome targets described in the HT Performance Framework (dashboard),[5] and comment on changing levels of e-maturity in FE colleges.

This analysis of FE colleges and their workforce was designed by Becta to consider a range of measures and provide a baseline against which subsequent progress can be gauged in the following areas:

- ICT infrastructure provision for learners
- Use and development of e-learning resources
- Skills of teaching staff in relation to ICT and e-learning, along with their level of access to technology
- Deployment of ICT for teaching, learning, assessment and management/administration
- Extent and nature of use of e-learning by practitioners;
- Practitioners' views on the impact of e-learning
- Barriers and enablers to technology adoption and development.

The scope of this survey is limited to LSC-funded incorporated FE colleges. Within these FE colleges, the survey looked at the full range of their provision, with the exception of activity that relates to the Offender Learning and Skills Service (OLASS).

Although the range of providers is clearly defined, within this there is a fairly complex range of provision, including 14–19 programmes, vocational training, and higher education (HE) in FE, together with some ACL and WBL. Learner programmes are increasingly delivered by more than one provider and across sectors – significant examples include the development of 14–19 Diplomas, vocational provision for 14- to 16-year-olds and some WBL programmes. While sixth form colleges (SFCs) and specialist colleges may concentrate on a relatively homogeneous group of learners, many larger general further education and tertiary (GFE) colleges deliver a broad range of courses.

---

[5] See Becta (2008) *Harnessing Technology: Next Generation Learning 2008–14.*

At the time of the survey there were 360 incorporated FE colleges in England, 235 of which were general FE colleges (some of which still described themselves as tertiary colleges) and 95 of which were SFCs. The remaining 30 were specialist colleges: 16 agriculture and horticulture college (AHCs) specialising in land-based studies, 10 special designated institutions (SDIs), largely delivering adult education, and four art, design and performing arts colleges (ADPACs). Annual LSC funding allocations (a rough proxy for institutional size) ranged from under £5 million to well over £50 million.

While the total amount of provision has expanded dramatically in the past 16 years, since incorporation in 1993, mergers have reduced the total number of FE sector colleges by almost 30 per cent from around 500. The reduction in the number of GFE colleges and AHCs has been particularly significant: most college mergers have brought together previously separate GFE colleges or combined land-based providers within the broader umbrella of GFE institutions.

FE colleges cover both urban and rural communities, across the full spectrum of economic well-being and social and economic deprivation. Some types of provider – e.g. SFCs, SDIs and ADPACS – are unevenly distributed across the nine LSC regions, and a number of colleges now operate in more than one LSC region. The amount of HE provision delivered by FE colleges now amounts to around 6 per cent of total HE student numbers, although this provision is largely concentrated within a relatively small number of colleges and a limited range of programme areas.

2   Summary of key trends affecting the FESR sector

We researched and reviewed the wider trends influencing, or likely to influence, technology-enhanced learning in the FESR and, specifically, FE college sectors, but this is not an analysis of trends arising from the FE survey data. The key points from our technology futures reports are identified below.

The core sources for identifying the key trends are the Lot 1 (The Learner and Their Context) and Lot 2 (Curriculum and Pedagogy) Becta Harnessing Technology research strands, since they represent the most current and relevant studies. Most of these documents are as yet unpublished. Cross-referencing this research with other research in the field, we have identified the following trends:

- **Mobile learning continues to grow in breadth, depth and scale**: The strength of the global mobile market will support the ongoing increase in wider forms of mobile learning across the education sectors. Mobile learning is expected to be particularly prevalent in the FESR sector. It is the learner who is mobile – learners move between a variety of different locations, and the challenges are to create micro-sites for learning, and enable the continuity of learning across locations and devices.
- **Personally owned devices in education become more pervasive**: There is a growing interest in the use of personally owned devices in the

FESR sector, and this will pose challenges in terms of connectivity and security. An increasing number of FE colleges now loan laptops and/or devices to students, and some are investigating the feasibility of offering a netbook to each student on enrolment.

- **The personal web and institutional infrastructure may yet converge**: The ease with which individuals can now create their own personal webs, simply by selecting affordable, reliable and intuitive tools of their choice, poses a challenge to institutional pedagogies and infrastructure. However, there is already evidence that this may not necessarily mean that existing tools and strategies such as virtual learning environments (VLEs) are obsolete. Some practitioners are circumventing the existing institutional tools, while others are integrating personal web tools within institutional ones.

- **Cloud computing will increase in education, as in business**: Cloud computing potentially allows users access to relatively inexpensive, remotely provided and hosted capabilities, which offer services, processing and programming power, and data storage facilities far exceeding those previously available. However, there are several barriers to the growth of cloud computing in education, including: perceived risks of placing all work and data in the hands of a single service provider; recurrent revenue spend as opposed to the more usual capital spend; and the lack of clarity about how cloud computing services will be integrated with managed services. Doubts also still persist about the current appropriateness of thin-client solutions for an increasingly media-rich curriculum.

- **The reconfiguration of physical and virtual learning spaces continues**: Reconfiguration of physical and virtual learning spaces is already evident, even before the Colleges for the Future programme.   A concern remains that there is insufficient understanding of (or indeed research into) the rationale behind the drive to reconfigure. In short, how do we know what are the most effective integrations of space and technologies? What science underpins the trend?

- Curriculum redesign becomes a mainstream discussion: The imbalance between the current educational system and the skills, competencies and qualities desirable to prosper in the early 21st century is gaining national and international recognition among governments and industry – most obviously through the joint call to action by Cisco, Intel and Microsoft. Technology can support many aspects of any agreed curriculum redesign. Much of what technology can do to enhance learning is valued by teachers and learners (and employers), but not acknowledged by the current system. The potential for technology-mediated formative assessment or linking individual and group assessment is currently under-exploited.

3   Conclusion

As with schools, college leaders and tutors are increasingly aware of, and persuaded by, the benefits of deploying new and emerging technologies to support teaching and learning. However, some persistent disruptions to this progress impede many of the trends discussed above. The deficit between the confidence and competence of staff and the demands of technology-enhanced learning remains apparent, as it has for more than a decade. Staff skills are improving, but now require constant updating in order to reflect the technology advances beyond the campus; the survey demonstrated that staff and managers broadly share the same perceptions of staff skill needs, with traditional continuing professional development (CPD) programmes and strategies being found inadequate. The financial problems affecting the Colleges for the Future building programme are likely to delay wireless enablement and reconfiguration of learning spaces in many colleges.

The ongoing concern about safety and the potential of technology to increase the exposure to risk is another disruption. A third persistent disruption is the lack of sharing and collaboration across sectors.

Trends acknowledged but not discussed in this analysis are: the ongoing growth of open source software, perpetual-beta technologies, gender divides, the expanded children's workforce, and non-traditional education providers.

All the trends mentioned above were endorsed by the validation seminars organised by Becta at the conclusion of the 2008–09 surveys.

4   Structure of this report

The report is based on the questionnaire, interview and focus group responses. It consists of four major sections:

- **Introduction to the 2008–09 annual survey** (this section): Introductory chapter, including a summary of the trends analysis
- **Survey findings**: The survey findings and college and staff data-sets
- **Signposts**: Signposts for future action.

The sections are supported by the following appendices:

- **Appendix A**: Credits to the contributors
- **Appendix B**: Glossary of terms and abbreviations
- **Appendix C**: List of figures and tables

- **Appendix D**: References and Bibliography

A separate technical appendix[6] contains a discussion of the methodology employed in the survey and,

- **Appendix E**: College questionnaire and analysis
- **Appendix F**: Staff questionnaire and analysis

5   Survey findings

5.1   The college data-set

The survey questionnaire was supplemented and validated by the interviews and focus groups. (Both the questionnaire and interviews and focus groups are described in the Technical appendix.)

In order to clarify and develop the findings, these data are reviewed from four perspectives:

- **The self-assessment carpet**: The 101 colleges in the sample are ranked from top to bottom in terms of their responses to a range of survey questions linked to the HT dashboard.
- **Findings from the college survey**: Analysis of other sections of the college questionnaire, identifying progress and issues related to: technology leadership and strategy; developing staff skills and capability; infrastructure capacity and technical support; learner experience and learner outcomes; and support for different groups of learners and personalisation.
- **Relationship between college and staff surveys**: Triangulation with practitioner survey data from the 33 colleges where five or more staff responses were received.
- **Other important issues arising from interviews, focus groups and comments**: Issues highlighted in management and practitioner interviews and focus groups.

---

[6] *Harnessing Technology Survey of FE Colleges 2008–09: Technical appendix.*

5.2 The self-assessment carpet

The self-assessment data covered 28 of the questions from sections 1–5 of the college questionnaire. The individual questions used for this part of the analysis are given in Appendix G in the technical appendix. The 28 questions covered all five main headings from the system outcomes of the HT dashboard, and the responses have been aggregated to provide a picture of progress across the following five key technology-related areas:

- Leadership, strategy and innovation (seven questions)
- Support for staff (five questions)
- Support for learners (six questions)
- Infrastructure, processes and data management (five questions)
- Support for personalisation (five questions).

This provided a national data-set of 505 items from the 101 colleges.

5.3 The national picture

Data from the separate questions in each section have been aggregated to provide an indication of progress towards achieving the HT goals linked with each HT-related topic area (Figure 1).[7]

The cells in Figure 1 are colour-coded as follows:

Key								
Stage of development:								
Early stages of development		Developing progress towards HT goals		Good progress towards HT goals		Largely or fully achieved HT goals		
Type of college:								
GFE colleges		SFCs		AHCs and SDIs		ADPACs		

---

[7] See the separate technical appendix for details of the treatment of data.

Type of college	Stage of development					
	Leadership, innovation and strategy	Support for staff	Support for learners	Infrastructure and data management	Personalise	Overall rating
	green	yellow	green	green	green	green
	yellow	green	green	yellow	green	green
	yellow	green	green	green	green	green
	green	green	green	green	yellow	green
	yellow	yellow	green	yellow	green	green
	yellow	green	green	green	green	green
	green	green	yellow	yellow	green	green
	green	green	green	green	yellow	green
	yellow	yellow	green	yellow	green	yellow
	orange	green	yellow	green	green	yellow
	yellow	yellow	orange	green	yellow	yellow
	green	yellow	yellow	yellow	green	yellow
	yellow	yellow	yellow	yellow	green	yellow
	yellow	yellow	green	yellow	yellow	yellow
	yellow	green	green	green	orange	yellow
	orange	green	green	green	yellow	yellow
	yellow	green	green	yellow	yellow	yellow
	yellow	yellow	green	yellow	green	yellow
	yellow	green	yellow	yellow	green	yellow
	yellow	yellow	green	orange	green	yellow
	yellow	green	yellow	yellow	green	yellow
	yellow	green	yellow	yellow	green	yellow
	yellow	yellow	green	yellow	yellow	yellow
	orange	yellow	green	yellow	yellow	yellow
	orange	yellow	yellow	green	green	yellow

Type of college	Stage of development					
	Leadership, innovation and strategy	Support for staff	Support for learners	Infrastructure and data management	Personalise	Overall rating
light blue	yellow	yellow	yellow	green	yellow	yellow
purple	orange	yellow	green	yellow	yellow	yellow
purple	orange	green	yellow	green	yellow	yellow
purple	orange	yellow	yellow	green	yellow	yellow
purple	red	yellow	yellow	green	green	yellow
light blue	green	yellow	yellow	yellow	yellow	yellow
light blue	yellow	yellow	yellow	yellow	yellow	yellow
light blue	orange	yellow	yellow	yellow	yellow	yellow
light blue	orange	yellow	yellow	yellow	yellow	yellow
light blue	yellow	yellow	yellow	yellow	yellow	yellow
light blue	yellow	yellow	yellow	yellow	green	yellow
light blue	yellow	yellow	yellow	green	yellow	yellow
light blue	orange	green	yellow	yellow	green	yellow
light blue	yellow	orange	yellow	yellow	yellow	yellow
purple	yellow	yellow	yellow	orange	yellow	yellow
light blue	orange	green	yellow	yellow	yellow	yellow
light blue	yellow	yellow	yellow	orange	yellow	yellow
light blue	yellow	green	orange	yellow	yellow	yellow
light blue	orange	yellow	yellow	green	orange	yellow
light blue	orange	green	yellow	green	yellow	yellow
light blue	yellow	green	yellow	yellow	orange	yellow
purple	orange	yellow	yellow	yellow	green	yellow
light blue	orange	yellow	green	orange	yellow	yellow
light blue	yellow	yellow	yellow	yellow	orange	yellow
light blue	orange	yellow	yellow	yellow	yellow	yellow
light blue	yellow	yellow	yellow	orange	yellow	yellow
purple	orange	green	yellow	orange	yellow	yellow

Type of college	Stage of development					
	Leadership, innovation and strategy	Support for staff	Support for learners	Infrastructure and data management	Personalise	Overall rating
purple	orange	red	green	yellow	yellow	yellow
periwinkle	orange	yellow	yellow	yellow	orange	yellow
periwinkle	orange	green	yellow	yellow	yellow	yellow
purple	orange	yellow	yellow	green	yellow	yellow
periwinkle	red	green	yellow	green	orange	yellow
purple	orange	green	yellow	yellow	orange	yellow
green	orange	green	yellow	yellow	orange	yellow
purple	orange	yellow	orange	yellow	yellow	yellow
light blue	orange	yellow	yellow	yellow	yellow	yellow
light blue	orange	yellow	yellow	yellow	orange	yellow
light blue	green	orange	green	orange	yellow	yellow
purple	orange	yellow	yellow	yellow	yellow	yellow
light blue	orange	yellow	yellow	orange	orange	yellow
light blue	orange	green	orange	yellow	green	yellow
light blue	yellow	yellow	yellow	yellow	red	yellow
green	red	green	yellow	yellow	orange	yellow
light blue	orange	yellow	yellow	orange	yellow	yellow
purple	orange	yellow	yellow	yellow	orange	yellow
purple	orange	yellow	yellow	yellow	yellow	yellow
green	yellow	yellow	yellow	orange	orange	yellow
light blue	orange	yellow	orange	yellow	yellow	yellow
light blue	orange	yellow	yellow	yellow	orange	yellow
green	orange	yellow	yellow	orange	yellow	yellow
light blue	orange	orange	yellow	yellow	orange	yellow
light blue	orange	green	orange	yellow	orange	yellow
light blue	orange	yellow	yellow	yellow	orange	orange
purple	red	yellow	yellow	yellow	orange	orange

Type of college	Stage of development					
	Leadership, innovation and strategy	Support for staff	Support for learners	Infrastructure and data management	Personalise	Overall rating
Purple	Red	Yellow	Yellow	Orange	Orange	Orange
Light blue	Orange	Yellow	Orange	Orange	Orange	Orange
Light blue	Orange	Yellow	Yellow	Orange	Orange	Orange
Light blue	Red	Yellow	Yellow	Orange	Orange	Orange
Light blue	Orange	Yellow	Red	Yellow	Orange	Orange
Purple	Yellow	Orange	Red	Orange	Orange	Orange
Purple	Red	Yellow	Orange	Orange	Orange	Orange
Light blue	Orange	Yellow	Red	Yellow	Red	Orange
Light blue	Red	Orange	Yellow	Yellow	Red	Orange
Purple	Red	Red	Orange	Yellow	Yellow	Orange
Green	Orange	Orange	Orange	Orange	Orange	Orange
Light blue	Red	Yellow	Yellow	Red	Orange	Orange
Purple	Red	Yellow	Yellow	Orange	Orange	Orange
Light blue	Orange	Orange	Red	Orange	Orange	Orange
Light blue	Red	Orange	Orange	Orange	Orange	Orange
Light blue	Orange	Orange	Yellow	Red	Orange	Orange
Light blue	Orange	Orange	Red	Yellow	Red	Orange
Purple	Red	Orange	Orange	Orange	Orange	Orange
Light blue	Orange	Red	Red	Orange	Red	Red
Light blue	Red	Orange	Red	Red	Red	Red
Purple	Red	Red	Red	Red	Red	Red
Light blue	Red	Red	Red	Red	Red	Red

Figure 1: The national carpet – college progress towards HT goals

The 'weave' of the 'carpet' identifies a number of areas of relative strength and weakness. The overall picture is encouraging across most of the colleges in the sample, with over three-quarters (77 per cent) making good progress or better

towards achieving the aspirational goals in the five areas. Only 4 per cent of sample colleges are still very much at the beginning stage.

Examining the vertical strands identifies some differences between the five areas:

- **Leadership, innovation and strategy**: Progress in this area has been relatively slow, with only 38 per cent of colleges making good progress or better. In particular, many colleges are still reluctant to allow learners to use their own devices in college, and are cautious about innovation – even the most advanced colleges are conscious that they may not be at the leading edge of technology use with learners, and do not feel that they are able adequately to reward the staff who lead technology developments.
- **Support for staff**: The substantial investments that colleges have made in infrastructure, hardware, software and technical support over recent years and are reflected in the positive scores for staff access to technology and to technology support.
- **Support for learners**: Colleges have always been at the forefront of positive support for learners, and this is reflected in the 80 per cent of colleges that rate themselves as good or strong in this area. Particularly noteworthy are the high confidence scores in the provision of assistive devices to facilitate IT access for learners with physical, sensory or cognitive difficulties.
- **Infrastructure and data management**: There is some suggestion that land-based colleges may experience more problems than other colleges do with infrastructure and data management, with a substantially lower overall rating. If this is the case, interview evidence suggested that this may relate to the colleges' teaching environments and learner populations. The sample is extremely small (only four colleges), however, and more research is required to substantiate this possibility.
Although overall scores for this section are close to the aggregate of all five, this masks large variations between questions. Question 3.9 (Does the college have an up-to-date policy for acceptable use of ICT?) generated the highest mean score of all 28 questions, while question 4.3 (Does learner data follow the student?) generated a very low score. An adequate acceptable use policy is a requirement for maintaining a JANET connection – a good example of a mandatory requirement driving policy development. The migration of learner data has long been problematic for colleges: the low score for this reflects three issues: linking MIS systems with VLEs, the continuing search for unique identifiers, and concerns over data protection.
- Personalisation: Almost two-thirds (61 per cent) of the total sample self-assess as good or strong on the aggregated questions regarding personalisation, but almost a third (32 per cent) identify themselves only in the 'developing' category. One question in particular – 4.5 (How is digital content reviewed?) – keeps the aggregated scores down: this is an area

Overall score on 0-4 scale: below 2.4 = Developing; over 2.4 = Good
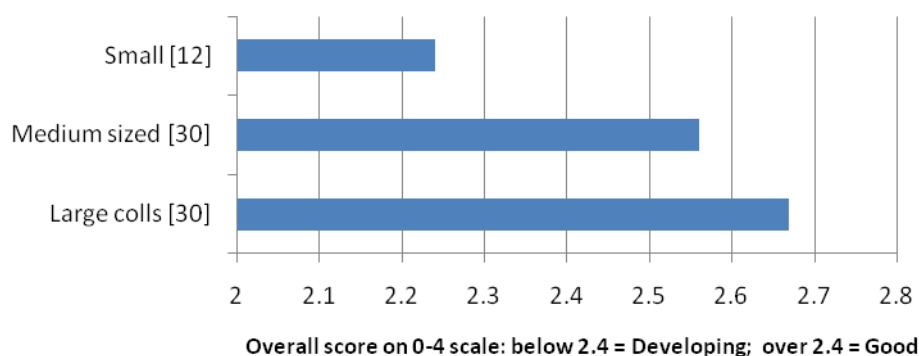
where interviews reinforced the view that progress in ensuring digital content is reviewed with a view to personalisation of resources is still patchy.

5.4 Size and type of college

The data used to compile the carpet are disaggregated by college size in Figure 2 below.

Figure 2: Overall scores for GFE colleges by size

Colleges were grouped by size using the colleges' estimates of full-time-equivalent (FTE) learners. The categories are:

- Small: up to 1,500 FTE learners in current year
- Medium: from 1,501 to 5,000 FTE learners in current year
- Large: more than 5,000 FTE learners in current year.

The scores in Figure 2 suggest that size does matter and that technology adoption and use with learners is more advanced in larger GFE colleges. It appears that the smaller GFE and land-based colleges have made least progress – less than the more homogeneous SFCs and considerably less than medium and large GFE colleges.

All SFCs fall into the 'small' size category. Although the differences are not particularly large, when GFE colleges and SFCs are compared, there are indications that quite a number of SFCs are less technologically advanced than the larger GFE colleges. Figure 3 below illustrates this.
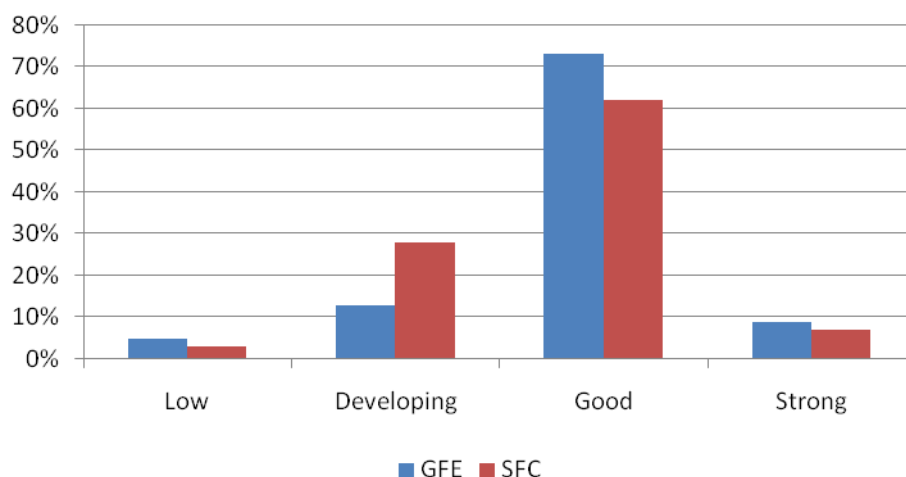
Figure 3: Relative progress of GFE colleges and SFCs

At either end of the spectrum, small numbers of both GFE colleges and SFCs are either at the relatively early stages of adoption ('low') or have largely achieved the HT targets ('strong').

In the middle two categories, a significantly higher proportion of SFCs than GFE colleges are at the 'developing' stage, and a larger proportion of GFE colleges have made good progress towards the targets. The narrower curriculum and the relatively traditional nature of many A level courses may reduce the impetus for introducing technology – this is reflected in some of the interview comments from SFCs.

6   Findings from the college survey

Discussion of the findings from the college data-set (including data already used in the 'carpet' analysis) is linked where appropriate with the goals from the HT dashboard. Comments from college interviews are included where these add useful illustrative detail.

6.1   College technology leadership and strategy

More than a third of colleges (34 per cent of the sample) stated that technology developments are an integral part of all appropriate annual planning processes. Historically, "There's always been a technical side and a curriculum side" (GFE, NE region). At many colleges (including the one quoted here), the two aspects are becoming increasingly joined up, with managers and leaders aware of the issues:

"Separate MIS/IT and ILT managers still. An ILT strategy group with cross-college representation feeds in to the directorate. Joining up needed (especially of systems) – need to bring in business processes." (AHC, NW region)

A third of colleges use a cross-college committee to oversee the technology elements of strategic and operational plans, with 26 per cent designating a senior

manager for ensuring that technology is included in annual planning processes. In 41 per cent of colleges, all managers discuss their technology training needs as part of the appraisal process, and 8 per cent of colleges include experience and competence in the management of technology as a selection criterion for management posts, but this is not yet the norm:

"Certificate qualifications for technical staff are required, but not really for curriculum appointments." (SFC, Greater London)

The more technologically advanced colleges are increasingly weaving ILT training into their culture and management processes:

"ICT/ILT criteria used in job specifications and appraisals – it is an expectation." (GFE, SW region)

"eCPD training is mandatory for new managers: the appraisal system monitors, and all have to undertake ILT training. Advice [is given] for existing managers." (GFE, NE region)

Over 60 per cent of colleges claim to use benchmarking regularly, with 37 per cent specifically using it to check their adoption and use of technology. The most commonly used commercial benchmarking suite mentioned was QDP, although the extent to which QDP engages with technology adoption and use is limited. A number of colleges referenced Becta's Generator tool, with a mixture of enthusiasm and reservations about the current state of development:

"Involved with development of Generator and will roll this out. Helps you think." (GFE, NE region)

"we used external surveys, e.g. QDP. Use meetings with JISC RSC. Learning centres use CoLRIC survey. Generator doesn't really match up to college's diversity – it suggests low VLE use, but this is contradicted by collaboration forums." (GFE, SW region)

Although the processes for the day-to-day management of technology vary considerably from one college structure to another, almost a quarter (21 per cent) have a whole-college plan which operates across all departments.

A third of colleges say they spend between 1 and 2.5 per cent of their annual budgets on technology, and a further third spend around 3–4 per cent. The remaining third are split equally between those spending less than 1 per cent and those spending more than 5 per cent annually. These figures should be treated with caution, however: spend may vary considerably from one year to the next, depending on the scale of updating in a particular budgeting cycle, and while some colleges included staffing costs in their responses, others did not. This area requires further investigation in 2009–10.

6.2 Developing staff skills and capability – the college view

Colleges now assess that 77 per cent of staff possess intermediate or advanced general ICT skills, while 65 per cent possess a similar range of skills in using ICT for e-learning. The distribution is shown in Figure 4 below:
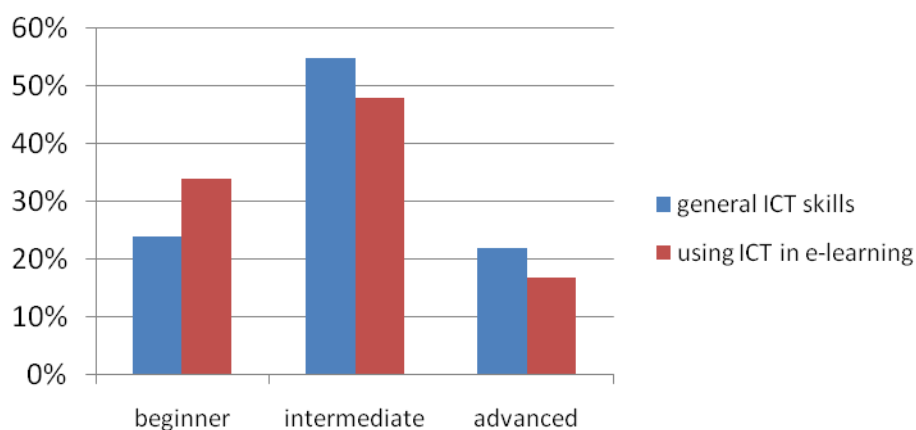
Figure 4: College assessments of staff ICT skills

Colleges further assess that staff skills have significantly improved compared with those in 2007 (Figure 5).
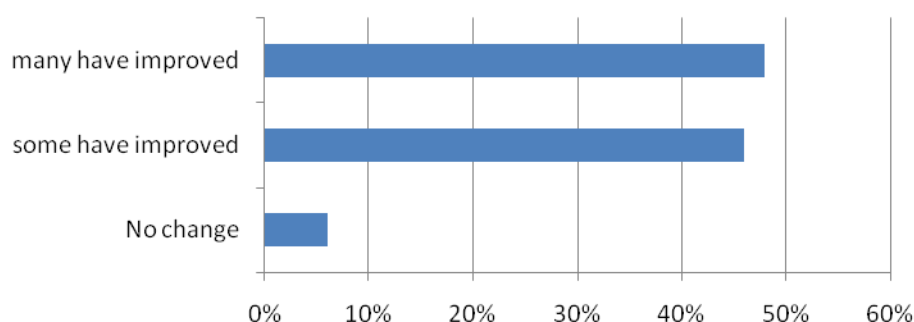
Figure 5: College assessments of changes in staff ICT skills

It is clear that there has been a substantial improvement in overall staff ICT skill levels compared with levels in 2007, although, unsurprisingly, the capability of staff to use ICT effectively in e-learning still lags behind their levels of functional general ICT skills. Although the overall assessment of staff skills shows little change from the 2007 report – even an apparent decrease in the numbers of staff with advanced skills in using IT for e-learning – the 2007 figures should be treated with caution as the samples and questions were amended for the 2008–09 survey to provide a more reliable picture.

More than 80 per cent of colleges support staff in developing functional ICT skills through a mixture of internal training and external courses, with 18 per cent ensuring that there is an annually updated training programme, which is usually linked to appraisal outcomes.

Only 5 per cent of colleges do not support staff in developing or adapting e-learning materials, with the large majority (68 per cent) offering support through a mixture of internal ILT champions, technical staff and external training. (The role and future of ILT champions is discussed further in the subsection Innovation below)

The most common single method of ensuring that technology supports effective learning is through the lesson-observation system, but, in addition to this, 60 per cent of colleges use a mixture of strategies, with small numbers (5 and 2 per cent respectively) including user and peer reviews.

6.3 Sharing good practice in technology use

Colleges report increasing evidence of sharing good practice, with a large majority identifying formal mechanisms across different areas (Figure 6).
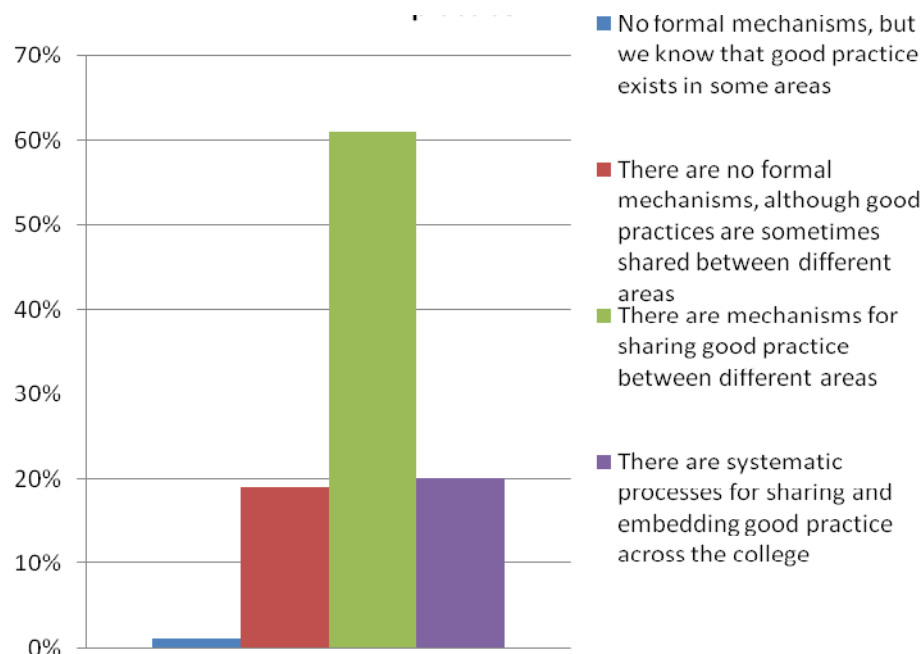
Figure 6: College mechanisms for sharing good practice

Although mechanisms for sharing good practice exist in over 80 per cent of colleges, there is some evidence that the way in which these mechanisms operate in practice is still patchy, and that there are remaining pockets of protectiveness. This is discussed further in the subsection Management of technology-based learning resources below, where the contrasts between college and staff views are explored.

6.4 Infrastructure and technical support

In colleges, infrastructure, the supply of hardware and software, access to technology for both staff and learners, and access to support for technology use has improved considerably in the past few years.

Overall network performance is fast and reliable in almost two-thirds of the colleges surveyed, but there are some problems in the remaining third. These are very similar figures to those recorded in the 2007 survey (Figure 7).
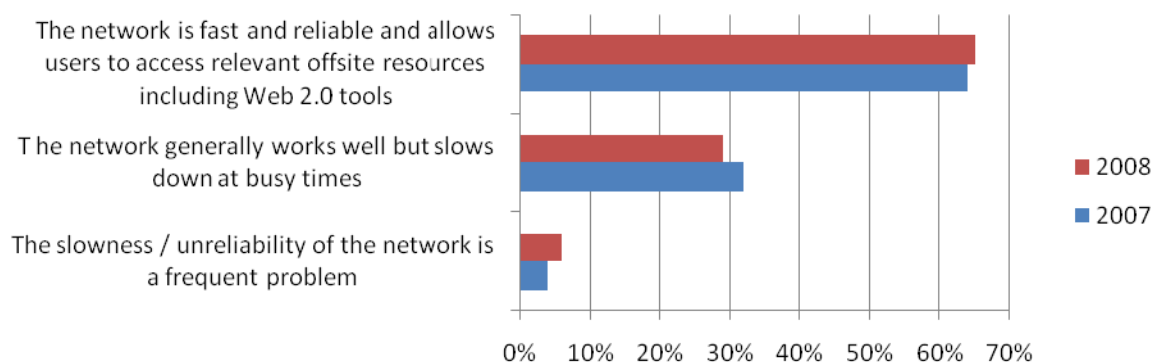
Figure 7: Overall college network performance

In over 90 per cent of colleges, the network meets learning and teaching demands, but in a substantial number of these colleges, it is working at full capacity (Table 2).

Table 2: Extent to which college network meets current learning and teaching demands

Response	Per cent of survey respondents
The network meets demand and has excess capacity	56%
The network meets current demand but is working at capacity	37%
The network does not meet current demand	7%

Learners cannot always easily use the network to work with large multimedia files (e.g. streamed video) in most colleges (Table 3).

Table 3: Extent to which learners can work on the college network with large multimedia files

Response	Per cent of survey respondents
The network is fast and reliable, enabling learners to work confidently with large multimedia files	35%
The network generally copes well with large multimedia files, but slows down at busy times	34%
Only some parts of the network enable learners to work with large multimedia files	31%

A similar question in the 2007 survey produced slightly more positive results, but since the questions were not identical, the comparison should be treated with caution.

When overall ICT stock and capacity are assessed, considerable differences emerge between management and administration and teaching and learning (Figure 8).
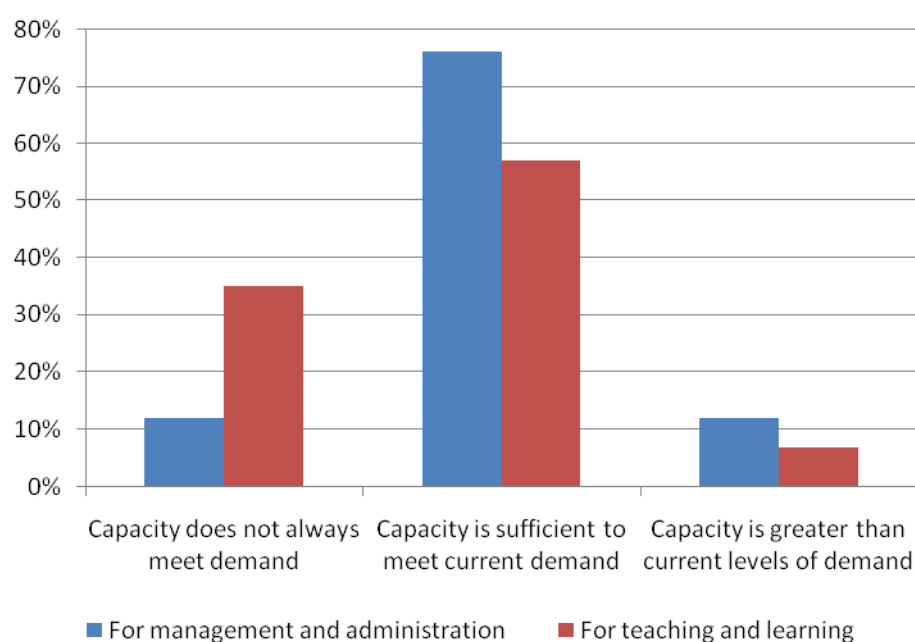
Figure 8: Overall capacity of college ICT stock

Whereas only 12 per cent of colleges said that their current ICT stock and resources are insufficient to meet the demands of management and administration, the figure rises to 35 per cent for teaching and learning, and while 88 per cent of colleges have either sufficient or excess capacity for management and administration demands, this figure reduces to 64 per cent for teaching and learning. It is likely that the figures are a reflection of earlier investment in college MIS at a time when e-learning and internet use in colleges was in its infancy, and the fact that the rapid growth of demand for teaching and learning ICT resources has not kept pace with supply. The figures in the 2007 survey are similar, but there may have been a slight improvement in ICT resource provision for teaching and learning – the 2007 survey recorded 40 per cent of colleges with insufficient capacity.

Although college computers available to learners are almost universally connected to the college network and provide internet access (97 per cent in both instances), only 20 per cent overall are available for learners to use outside normal teaching hours. In just over a quarter of colleges, learner demand for internet access is not met by the current computer stock (Figure 9).

Figure 9: Extent to which college computer stock meets demand for internet access
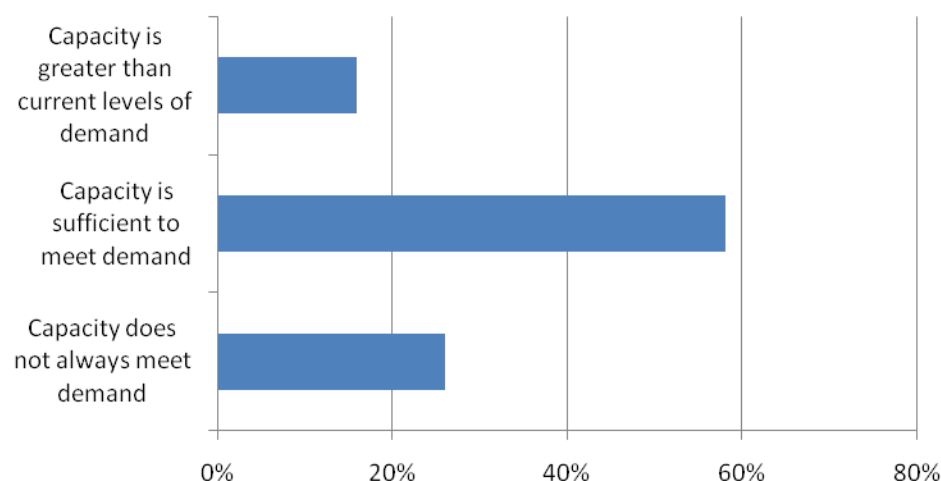
The extent to which college computer stock meets learner demand for internet access appears to show a significant improvement since 2007, however, when 50 per cent of colleges and their staff reported that internet capacity did not always meet demand from learners.

The overall level of learner demand for computers presents a similar picture, but the level of unsatisfied demand is greater – 36 per cent, as against 26 per cent for internet access. Again, this appears to represent a significant improvement on 2007. However, so long as colleges find it difficult to allow learners to bring their own devices to college and use them, and restricted wireless networks prevent the universal use of laptops, the problem of unsatisfied learner demand for computers is likely to continue; the implications of this are discussed in the final section, 'Signposts'.

The presence of a learning platform is now almost universal in colleges. Figure 10 shows how the number of colleges with a learning platform has changed since 2003, when 'learning platform' was often assumed to be simply an intranet.
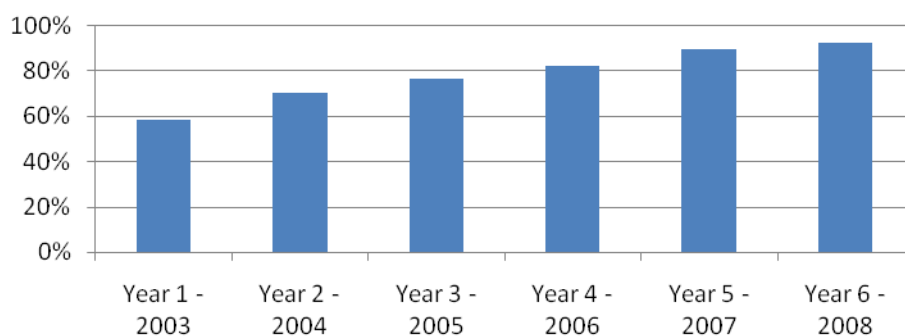
Figure 10: Per cent of colleges using a VLE (learning platform)

While the majority of VLEs are Moodle, the use of Blackboard is still significant in a minority of colleges – particularly where colleges cannot afford the level of technical support for customising Moodle. Very few other brands were recorded.

Staff and learner access to technology and technology support is generally good (Figure 11).
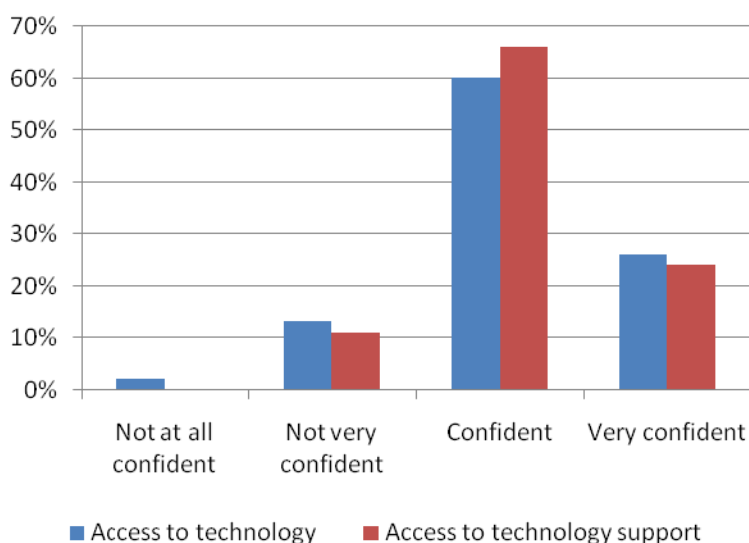
Figure 11: College confidence in staff access to technology and technology support

Access to technology and support includes substantial remote access outside working hours (Figure 12). Access to remote IT services and support is improving, with 74 per cent of staff able to access IT support externally and 52 per cent able to access most college systems externally.

Remote access to IT support
Remote access to IT services

0% 10% 20% 30% 40% 50% 60% 70% 80%

■ Users can normally access IT and IT support externally at all times
■ Users can access most college systems / support externally
■ There is limited external access to IT systems / support
■ College IT systems / support cannot be accessed from outside the college
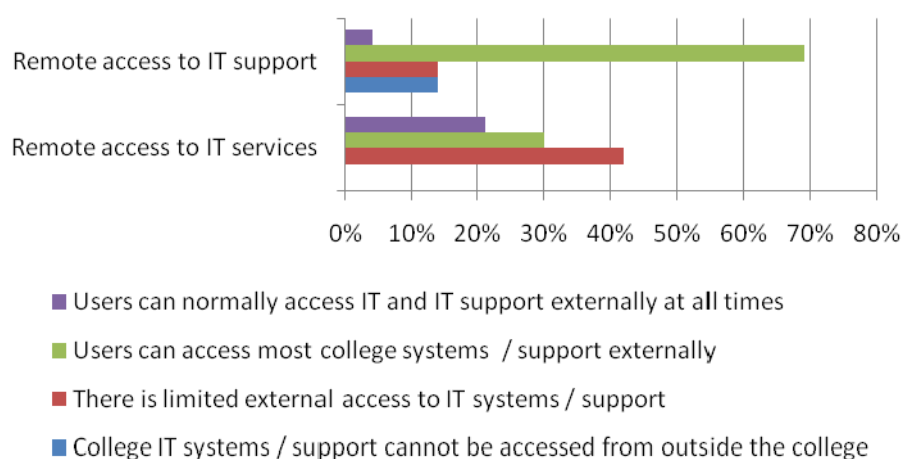
Figure 12: Remote access to IT support and services

Although energy efficiency and environmental considerations have been a condition for grant support for college building projects, almost a third of colleges still make little or no use of technology to promote energy efficiency (Table 4).

Table 4: Use of technology to promote energy efficiency

Response	Per cent of colleges responding
There is little or no use of technology to promote energy efficiency	30%
The college monitors energy use and/or encourages changes in user behaviour	20%
The college manages heating and ventilation systems and/or uses technology to minimise consumption of electricity and fossil fuels	11%
The college uses technology for a mixture of monitoring, managing systems and encouraging changes in behaviour	40%

6.5 Systems integration and data management

Integration between MIS and learner systems is gradually becoming more sophisticated and widespread, but in almost 40 per cent of colleges there are still, at best, only limited links between systems (Figure 13).
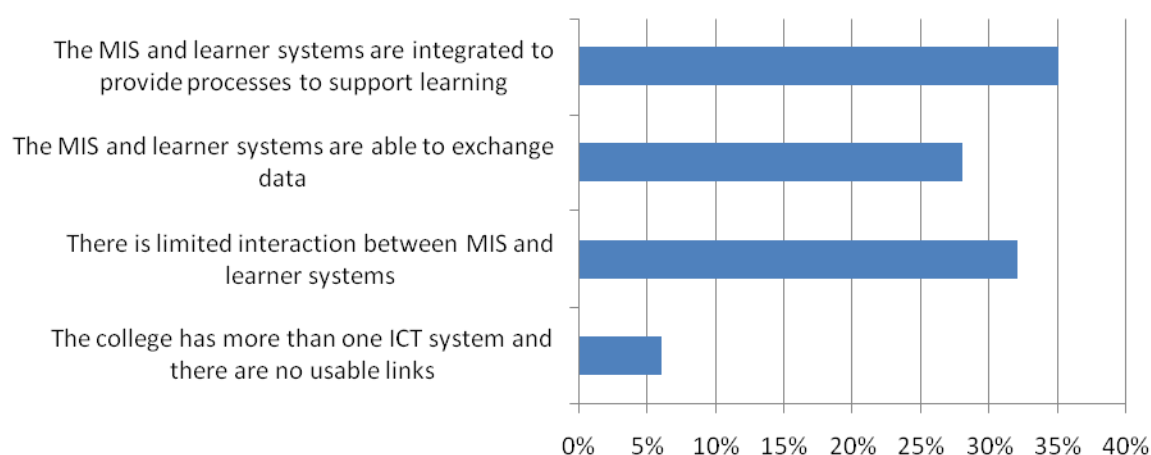
Figure 13: Extent of integration of college MIS and learner systems

An indication of the lack of integration is given by one college:

"VLE not populated from the registry system." (AHC, SE region)

While at the advanced end of the scale, a large college reports:

"EBS used for student data: Blackboard is linked to this and ILP [individual learning plan] pulls through the student data." (GFE, NE region).

The earlier adoption of ICT for management and administrative systems appears still to be driving the pace of integration in many colleges: there is some evidence from college interviews and focus groups that colleges that have developed customised MIS in house are better placed to integrate these with their learner systems.

Twenty per cent of colleges reported managing all their technology development in house, while 30 per cent have successfully involved partners (often consortia) or suppliers in technology developments. The remaining 50 per cent have relied on occasional project funding for specific initiatives.

With the integration of MIS and learner systems still in its early stages in many colleges, it is unsurprising that the extent to which learner data follow the student before entry, on programme and on exit is still fairly limited (Figure 14).
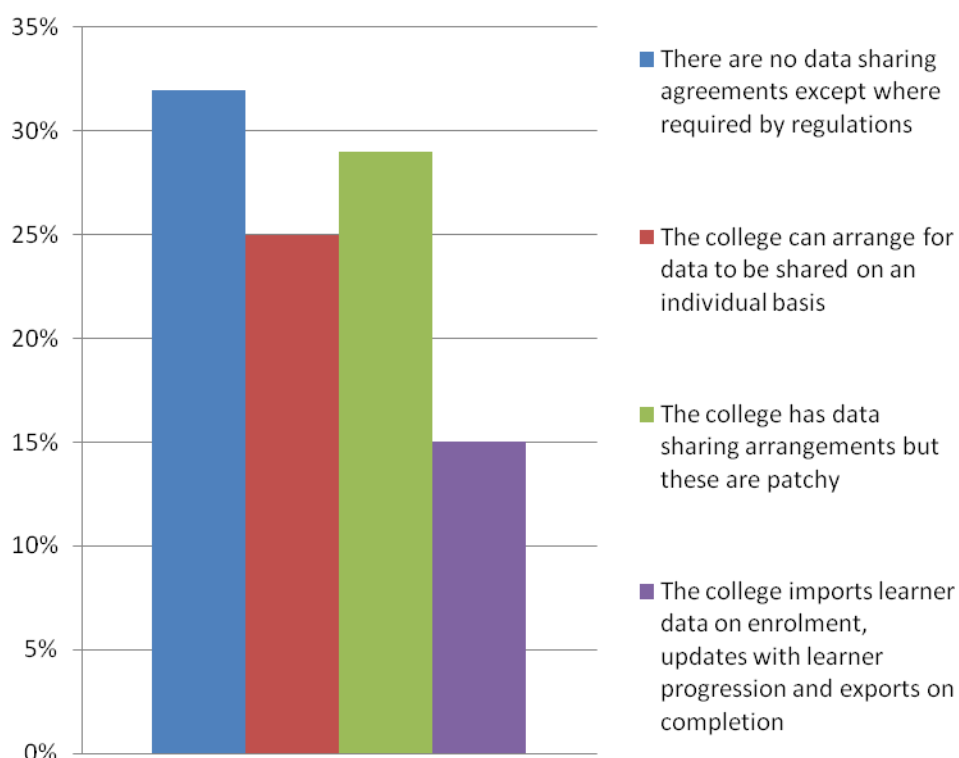
Figure 14: Extent to which learner data follows the student

Almost all colleges (99 per cent) report an adequate policy for acceptable use of ICT, although 24 per cent think that the policy may now need updating. The virtually universal existence of adequate acceptable use policies is unsurprising, given that JANET requires one as a condition of access. However, college confidence in the extent to which learners understand the policy is less strong (Table 5).

Table 5: College confidence in learners' understanding of its acceptable use policy

Response	Per cent of colleges responding
The college is not at all confident that learners understand the policy	3%
The college is not very confident that learners understand the policy	27%
The college is confident that learners understand the policy	65%
The college is very confident that learners understand the policy	6%

Colleges report that e-safety is implemented in a variety of ways (Table 6).

Table 6: College implementation of e-safety for staff and learners

Response	Per cent of colleges responding
By individual staff	9%
Through a group of staff	29%
Through a management group	9%
A mixture of these	54%

Colleges' confidence in the effectiveness of e-safety procedures is lower – and strikingly similar to their confidence in learners' understanding of acceptable use (Table 7).

Table 7: Colleges' confidence in the effectiveness of their e-safety procedures

Response	Per cent of colleges responding
The college is not at all confident that learners understand the policy	4%
The college is not very confident that learners understand the policy	26%
The college is confident that learners understand the policy	62%
The college is very confident that learners understand the policy	9%

Overall, however, colleges are generally very confident that their procedures for data management and data protection are fit for purpose (Figure 15).
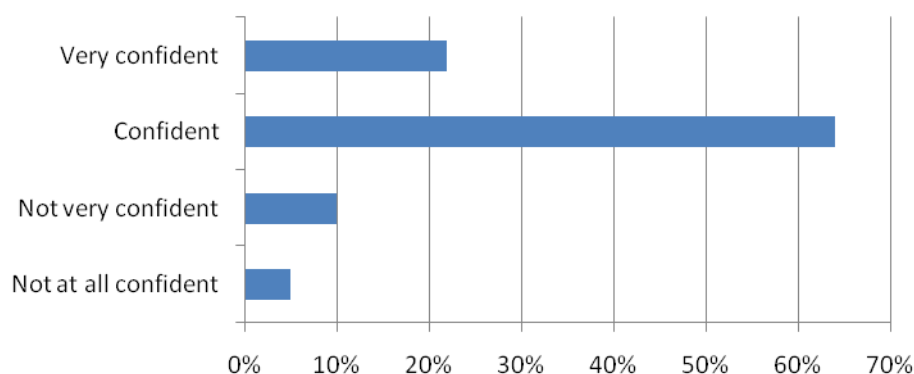
Figure 15: College confidence in overall data management and data protection procedures

Although HE is increasingly exploring the use of shared services, FE colleges make only limited use of shared technology services.

Table 8: Use of shared technology services

Response	Per cent of colleges responding
The college makes no use of shared technology services	42%
The college has considered using shared services but has not yet done so	19%
The college uses at least one shared technology service	30%
The college uses a range of shared technology services where it is effective to do so	10%

Technology refresh

Most colleges implement policies on technology refresh, with regular reviews and annual budgetary commitments (Figure 16).
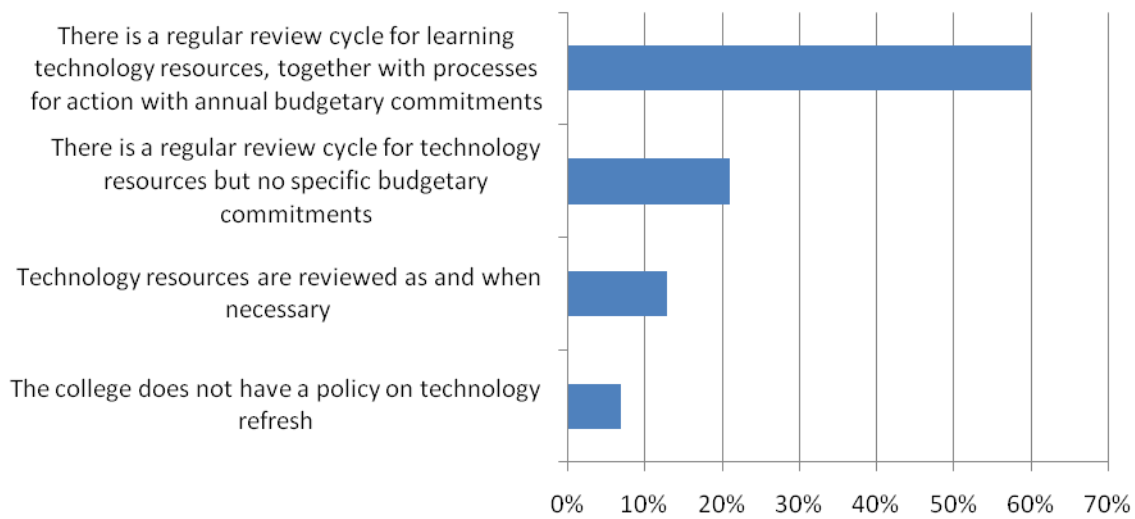
Figure 16: College policies for technology refresh

6.6 Management of technology-based learning resources

This section covers the development and sharing of technology-based learning materials. Reference has already been made in the subsection Developing staff skills and capability – the college view to the ways in which colleges support staff in developing or adapting learning materials. Two-thirds of colleges offer a mix of technical and pedagogical support (Figure 17).
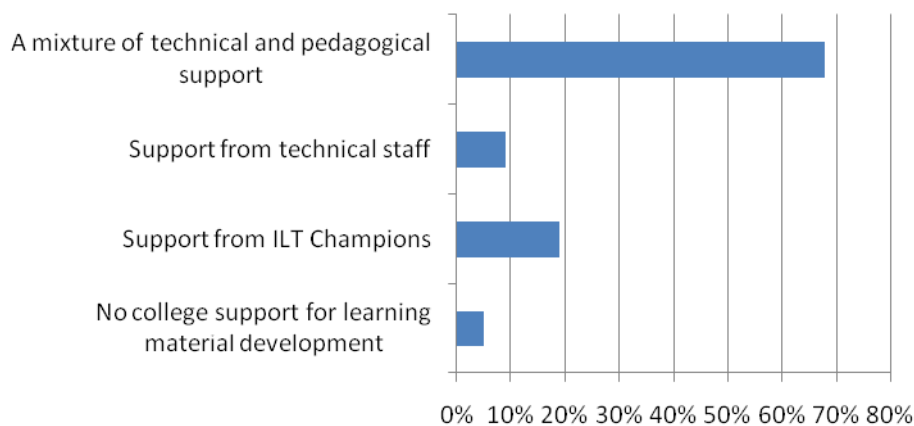
Figure 17: Support for staff developing e-learning materials

College strategies for sharing good practice are described in the subsection Sharing good practice in technology use above. The finding that mechanisms for sharing good practice exist in over 80 per cent of colleges (Figure 6 above) is encouraging,

but staff views about the sharing of learning resources suggest that in a considerable number of colleges, there is some divergence between policy and practice.

College policies for sharing learning resources are shown in Figure 18 below. Note that the four response categories are not entirely mutually exclusive.

Figure 18: The sharing of learning resources
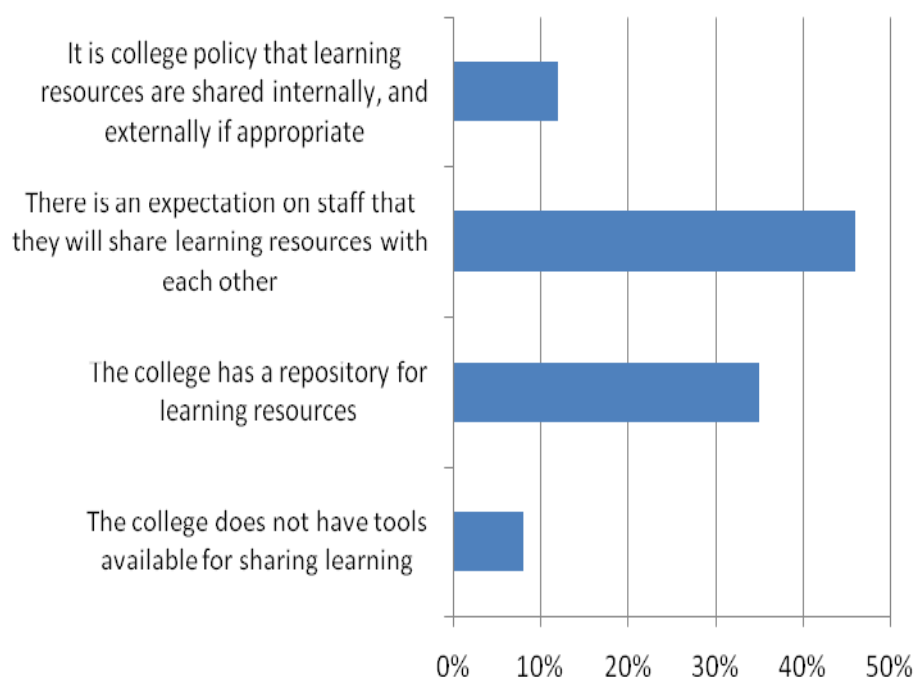
Both AHCs and SFCs reported belonging to consortia for resource sharing; again, staff reported some limitations in the extent to which resource sharing takes place in practice. Even in some technologically advanced colleges with widespread good practice, there is a note of protectiveness about sharing learning resources:

"(Sharing) generally very good – unfettered access to all learning resources for both staff and students. Not sure that some teachers buy in to the full sharing concept – some are still protective (of their own resources)." (SFC, Greater London)

This protectiveness clearly still exists across departmental and faculty boundaries, and extends across consortia of colleges:

"All (resources) available on Moodle, but not widely shared across faculty boundaries. Encouragement from e-learning co-ordinator and SMT, but no specific

policy. Some sharing starting across (college consortium) group, but many departments are still suspicious." (SFC, SE region)

Staff views on sharing learning resources echo some of their reservations about the overall sharing of good practice:

"There are no real obstacles to sharing, apart from the attitudes of staff, who can sometimes be a bit precious about their resources." (GFE, Yorkshire & The Humber)

"Students might ask different teachers why they don't use the same resources as other teachers, but… Departments work with a large degree of autonomy, only rarely sharing good practice." (SFC, SE region)

Often, staff are impatient of this caution:

"We need much more of an open system to make it easier for staff to know what other people are doing. I would like to see the programme areas have a much more holistic overview of what they're doing on Moodle." (GFE, Yorkshire & The Humber)

Some staff identify lack of time as an obstacle to sharing resources:

"At the end of the day, we have too much work to allow us to practise sharing more." (SFC, Greater London)

While staff are positive about resource sharing, lack of time may be reflected in lack of awareness:

"I would say that people don't share, not because they don't want to, but because they're not aware of what's available to share." (GFE, Yorkshire & The Humber)

Staff, however, are clearly aware of the potential benefits for learning and teaching:

"I think if we were to map the skill sets or learning outcomes then there would be potential to share more learning resources across similar areas." (AHC, NW region)

Another lecturer from the same college as above added:

"Sharing develops you as a member of the teaching staff, which enables you to support others." (AHC, NW region)

In two large multi-site colleges, the culture of expectation clearly leads to positive practices:

"There's quite a lot shared, because it's part of college policy." (GFE, SW region)

"Using ILT over the last couple of years has made sharing and the communication of resources even easier and has encouraged more people to do it." (GFE, NE region)

Digital content and usability

Although 60 per cent of colleges state they have a systematic review process for learning resources, review of digital content is patchy in more than half the colleges surveyed (Figure 19).
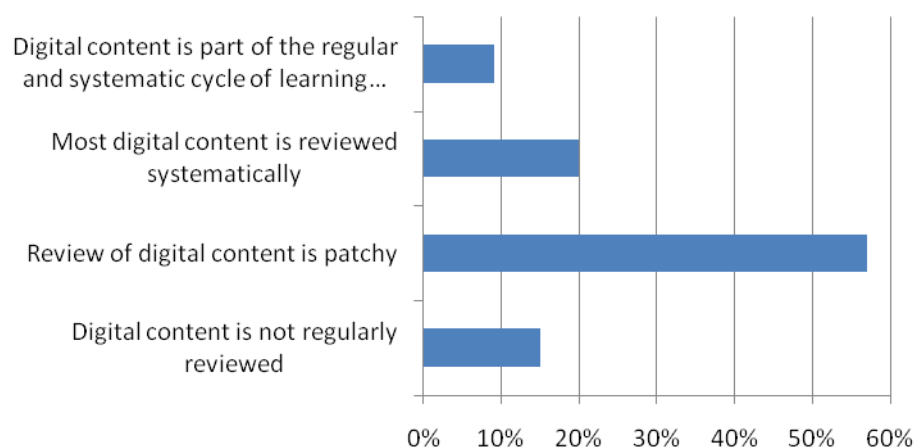
Figure 19: Review of digital content

The uneven extent to which digital content is reviewed is reflected in college comments:

"College view is that this should be the work of each individual professional, working through line managers" (GFE, Yorkshire & The Humber)

"Peer (quality) review of all modules, with all material developed through a central hub. IPR [intellectual property rights] and accessibility managed centrally to ensure reliable QA [quality assurance]. Responsibility pitched at line management level." (AHC, NW region)

"Appropriateness is not really an issue, but copyright is checked. Web sensors used to prevent access to social networking sites, though selective access to YouTube allowed for music students." (SFC, Greater London)

"Depends who's produced it. Some comes through the system for configuration – has to meet disability standards. PPTs for web come through ILT support team. NLN materials quite extensively available to courses, but still a substantial amount unknown. Strong on copyright." (GFE, SW region)

"Patchy – this is a function of size. Very strict annual Blackboard review: go through each course, but not really with a content remit, and not really as a monitoring function." (GFE, NE region)

In the same vein as the overall patchiness of digital content review, the testing of learning resources for usability and accessibility prior to release is still relatively undeveloped in many colleges (Figure 20).
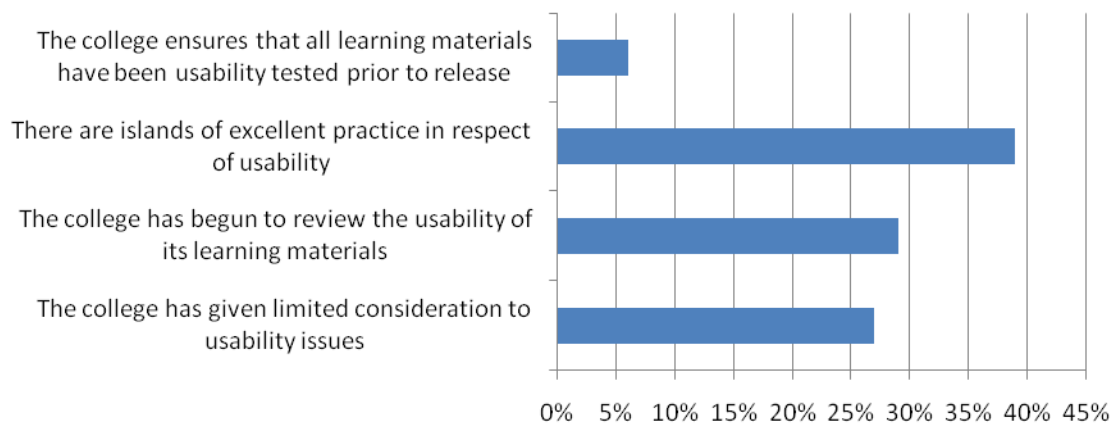
Figure 20: Usability testing of learning materials

6.7 Learners' experience of technology in colleges

Almost all colleges make use of e-learning with at least some students, but there is considerable variation between colleges (Figure 21).
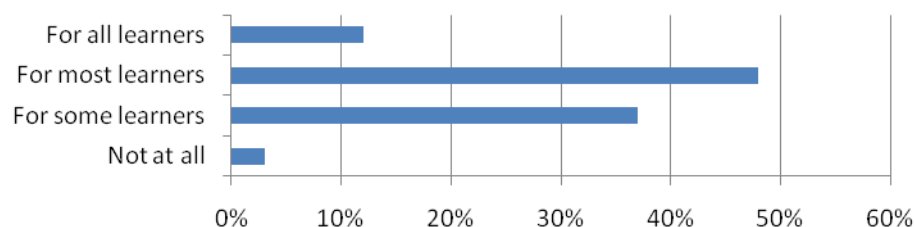
Figure 21: Extent to which colleges use e-learning

Staff in colleges use e-learning for a variety of purposes – the detailed breakdown is shown in Figure 34 in the subsection Staff use of ILT in their teaching below. The increasing sophistication of devices has had a beneficial impact on resources in at least one college:

"The Blackboard version for iPod touch has meant fewer digital cameras disappearing from the LRC [learning resource centre]." (GFE, NE region)

Colleges also use technology increasingly for obtaining learner feedback (Table 9).

Table 9: Extent to which colleges use technology to collect learner feedback

Response	Per cent of colleges responding
Not at all	7%
We use student representatives and/or online surveys	39%
We use online surveys and forums and encourage learners to organise their own feedback using technology	14%
We use a mixture of the mechanisms described here and analyse the data using technology	41%

However, over a third of colleges are not confident that all groups of learners can readily provide feedback using technology, though the other two-thirds are confident or very confident that they can. Much of the learner feedback (e.g. LSC learner feedback surveys) is concerned with general student satisfaction – interviews, focus groups and the pilot learner voice survey confirmed that relatively little feedback is concerned with learners' experiences of technology:

"Some online surveys, but difficult with WBL. Technology explored with online learners." (AHC, NW region)

"Online surveys include (some) questions on technology." (AHC, SE region)

"Blackboard used for HE students. Microsoft info (linked with Access). Now using QDP and in-house systems. Tutor support for Entry and Foundation Level students. Have looked at learner experience of using technology for past four years, but still lack knowledge about use of drop-in centres." (GFE, NE region)

"Less than we should. Used to use QDP in electronic form, but currently paper-based. Not really looked at learner feedback on technology: had MoLeNET projected, but didn't collect responses electronically." (GFE, SW region)

"Subject surveys done online on VLE (very simple – two questions only), but free-response ones have produced some interesting comments, occasionally on technology issues. Learners can access VLE from home (and do) but neither learners nor staff can access personal file storage remotely – learners have complained about this. Learners in sociology referenced VLE universally and unprompted when asked about sources for revision. Idea of surveys to explore learner experiences of technology had not occurred to most staff, though ILT managers do conduct focus groups on this at end of year." (SFC, SE region)

In colleges with a strong technology culture, the use of online surveys is starting to change:

"Three surveys per year, with embedded questions on technology. Differences between HE and FE – partly terminology, partly about the extent of expectations. Have developed online questionnaire about expectations, to help lecturers." (GFE, NE region)

"All surveys are electronic and include technology questions. Generally high student satisfaction, though variations between departments – survey data is used in departmental planning." (SFC, Greater London)

The majority of colleges use ICT for learner induction activities: only 2 per cent of the sample of colleges did not use it at all, and 74 per cent use technology for some induction activities with most or all learners. The extent to which ICT is used for a range of induction activities is shown in Figure 22.
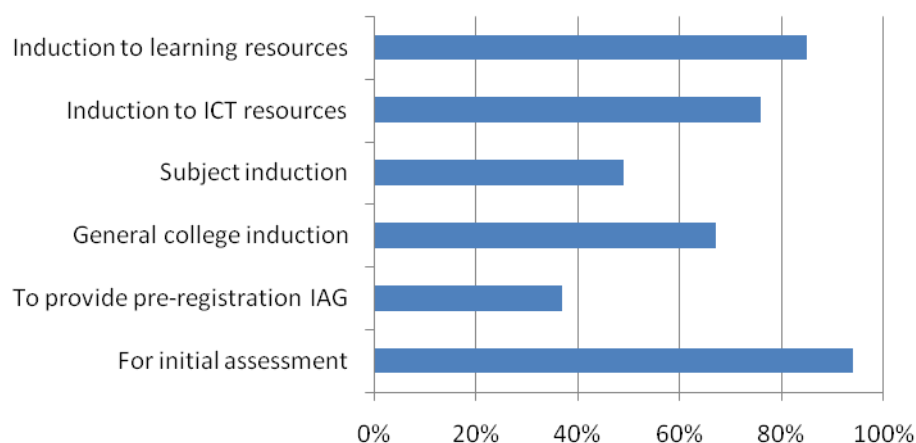
Figure 22: College use of ICT for learner induction

It is not surprising that well over 90 per cent of colleges use ICT for initial assessments, and that over three-quarters use it for induction to learning resources. It is perhaps slightly surprising that only two-thirds of colleges use ICT for an induction to ICT resources. Technology is not yet used by more than half the colleges for subject induction (49 per cent) and the provision of pre-registration information, advice and guidance.

Technology is being used in increasingly sophisticated ways to support assessment in colleges (Figure 23).
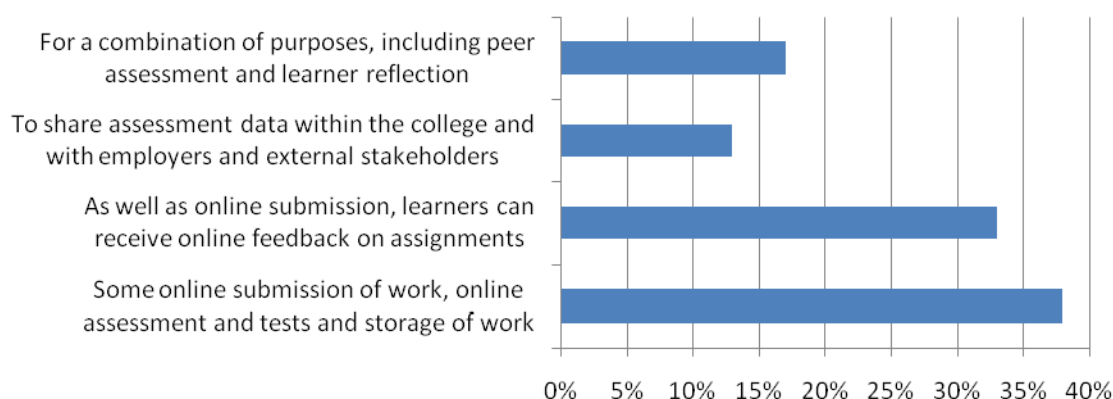
Figure 23: College use of e-assessment

More than three-quarters of the colleges in the sample are either confident or very confident that technology adds value to learner assessment. This is well illustrated by the sophisticated range of tools used in one large multi-site college:

"Use GOLA [Global Online Testing System]. Can give self-assessment feedback – Question mark Perception. Trackable assignment assessment in Moodle and discussion forums and podcasting – trying to extend this. Have used it to validate good work by students. Also use Audacity." (GFE, SW region)

6.7.1 Learners using their own devices in college

This section covers the extent to which learners are encouraged to bring their technology knowledge into the classroom, and the extent to which learners are permitted or encouraged to bring their own devices into colleges and use them. Many colleges still find it difficult, for a variety of reasons, to manage learners' use of their own resources; however, as many MoLeNET projects have demonstrated, handheld and mobile devices offer great potential for developing interactive and effective learning.

Only a small percentage of colleges encourage learners to bring their own technology devices and knowledge into the classroom (Table 10).

Table 10: The extent to which colleges support learners bringing their own knowledge of technology and devices into the classroom

Response	Per cent of colleges responding
Learners are not encouraged to bring their own devices into college	20%
Individual teachers/lecturers decide what personal devices learners can use in the classroom	59%
The college allows learners to use personal mobile and handheld devices in most courses and programmes	18%
The college has a system in place to encourage learners to use their full range of personal technology devices to support their learning	4%

When the focus of the question is changed slightly, there is rather more evidence of a positive approach from colleges (Figure 24).
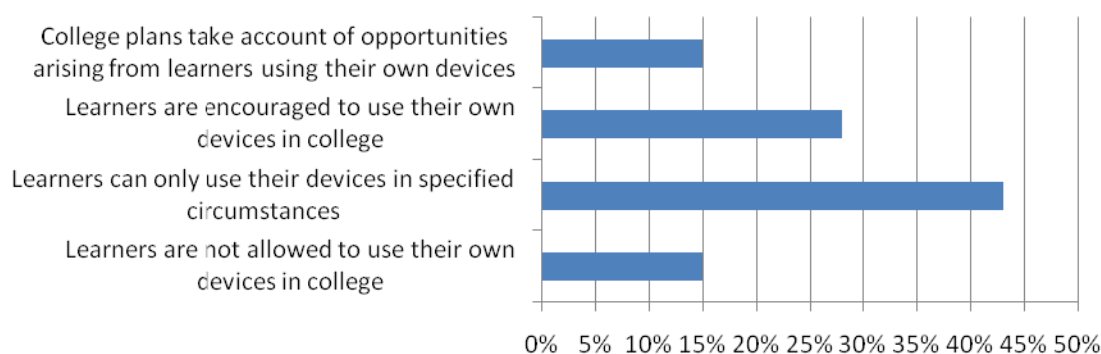
Figure 24: Extent to which learners are encouraged to use their own technology devices in college

Concerns about security and the patchy distribution of wireless networks inhibit many colleges from going far at present:

"Not much – large organisation needs to be security conscious. Same for HE as FE, as they're in the same environment." (GFE, NE region)

"Wireless largely pervasive but difficult at (former AHC college), though included in new-build programme. Mobile working encouraged; not really using smartphones, though can publish to them with podcasting systems." (GFE, SW region)

Although there are signs of change, the ubiquity of mobile phone use by younger learners is still treated as a distraction from learning in many colleges:

"No college policy, but under discussion. Mobiles not allowed in classrooms." (SFC, Greater London)

Where colleges have taken the plunge and introduced unsecured wireless networks, mobile phones are less likely to be perceived as a problem:

"Two LRCs now have an unsecured wireless network – both students and staff can use this. Relaxing rules on mobiles." (GFE, NE region)

An increasing range of colleges are beginning to capitalise on the use of mobiles, both inside and outside the conventional classroom:

"Students can bring their own laptops in and connect through college internet access. Equine section uploads pictures from mobile phones. Trialling video and audio recording in the field using students' own devices." (AHC, SE region)

"No ban on kit, but little use except in photography. Occasional use of internet via mobile in English language to circumvent network firewall to specific websites. Occasional use of mobiles for taking photographs and as sound recorders – have rendered pocket voice recorders obsolete." (SFC, SE region)

MoLeNET projects have had a direct impact on changing attitudes in some colleges:

"We were involved in MoLeNET to run a pilot. Taking what we've learnt from that, we are going to try to move it forward to make mobile technology more accessible." (GFE, Yorkshire & The Humber)

In a small number of technologically confident colleges, college plans now take account of opportunities arising from learners using their own devices:

"It's all over. On the student portal we have a Wi-Fi address, and you can connect to the student intranet within a day, using any device – they can bring in their iPhones, laptops, Playstations, etc. We've made a considerable investment in the Wi-Fi backbone to support these devices. Students can submit work through email, and we're putting in a system to deal with videos and podcasts, but I'm not sure if students can upload these directly to the VLE, as they'll have to go through a sensor first." (GFE, NW region)

The reluctance of many colleges to exploit the use of personal technology was echoed in the pilot learner survey which, at the time of writing (June 2009), Sero was conducting on behalf of Becta. Almost two-thirds (32.2 per cent) of learners responding to an online survey asserted that they possess better IT equipment at home than they have access to in college, and a similar question in the online

learner survey to the one reported in Figure 24 above produced the following responses (Table 11).

Table 11: Learner reports on using their own IT devices in college

Response	Number of learners responding	Per cent of learners responding
I'm not allowed to use my own devices in college	45	7.7%
I can use some of my own devices in college – but I can't connect them to the college network	147	25.2%
I can use any of my own IT devices in college	227	38.9%
The college encourages me to bring my own IT to devices to college and use them on the network	60	10.3%
No comment/not applicable	104	17.8%

Because of the pilot nature of the learner survey, the figures in Table 11 may not be entirely representative; however, the data makes for an interesting comparison with college and staff views.

Where colleges do allow learners to use their own devices, they report a positive effect:

"They appreciate the fact that they can take technology into the classroom." (GFE, Yorkshire & The Humber)

However, almost all colleges make an exception for learners who require assistive technology.

6.7.2 Support for different groups of learners

This section covers: the types of ICT-based learning support offered to students; the extent to which learners are supported in the use of assistive devices; how the college helps to improve learners' use of technology; and the overall confidence the colleges have in the effectiveness of technology support for learners.

Offered a wide variety of responses, colleges reported the provision of learning support in a range of different ways – all colleges selected at least three of the options from the list provided and reproduced in Figure 25 below. The use of blogs and wikis is becoming increasingly common, both for the provision of learning support and to extend and enrich learning, and is discussed in the subsection Blogs and wikis below.
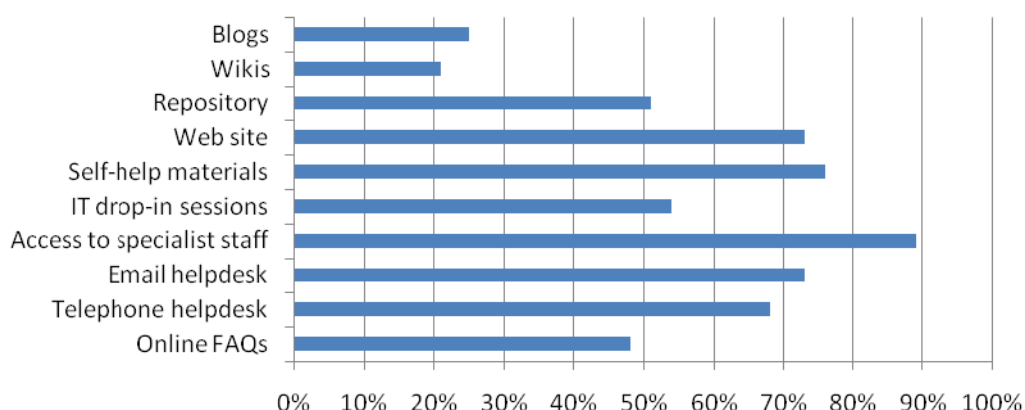
Figure 25: Frequency of different types of learning support

Linked with learning support are the methods that colleges use to improve learners' use of technology. Most colleges use a mixture of ad-hoc personal support, stand-alone ICT classes, online packages and drop-in sessions. Although two-thirds of colleges are confident or very confident that this support is effective, a third do not share the same confidence.

A similar pattern is shown by the degree of college confidence in the access that learners have to timely and effective pedagogical support for their ICT use (Figure 26).
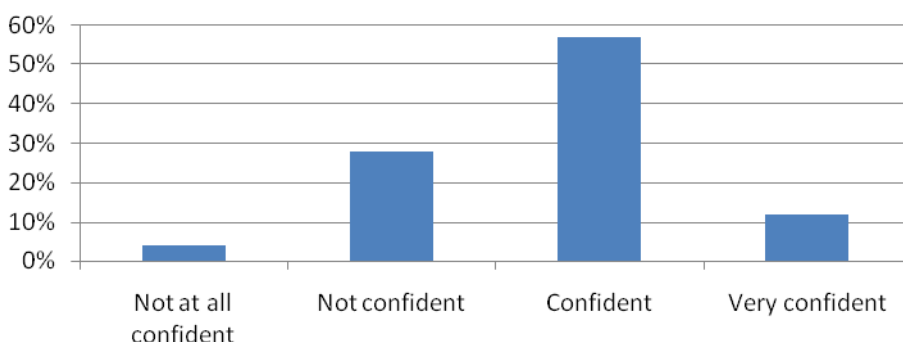
Figure 26: College confidence in timely access for learners to pedagogical ICT support

Colleges have made significant progress in the provision of appropriate assistive devices to support learners who require help with physical, sensory or cognitive access to maximise the benefits of ICT. Almost all colleges permit learners to bring in their own assistive devices. In Figure 27 below, 'physical access' includes devices such as tracker balls, switches, alternative/onscreen keyboards and pointing devices; 'sensory access' includes video magnifiers, text-to-speech software, screen

magnifiers, Braille displays, printers and copiers, and hearing loops; and 'cognitive access' covers predictive word processors and voice recognition.
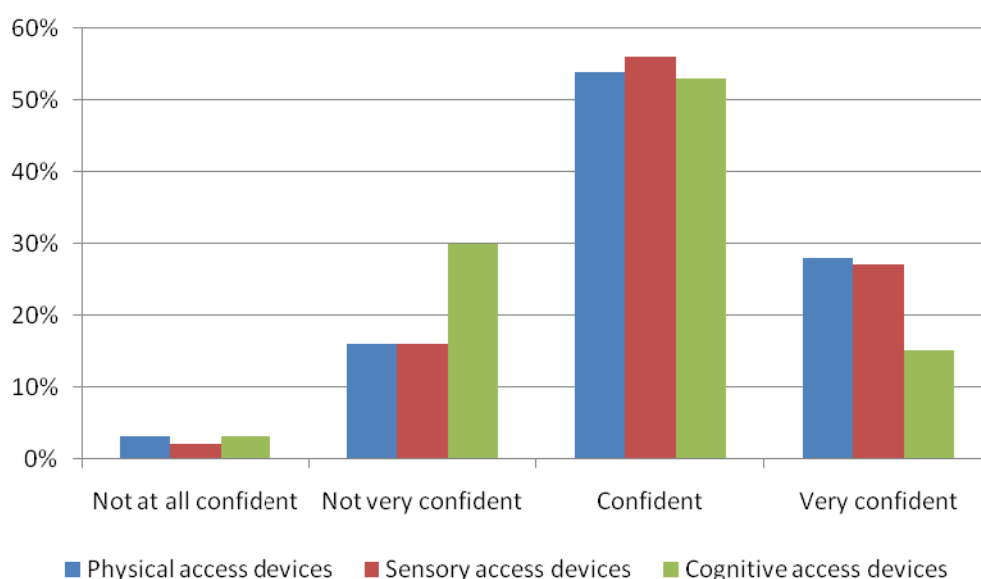
Figure 27: College confidence in the provision of assistive devices for learners

This progress has been partly stimulated by Ofsted inspections and significantly by the work of JISC TechDis in identifying and publicising open source software for providing appropriate assistance. Although overall confidence levels are very encouraging, Figure 27 demonstrates that appropriate access for learners with cognitive difficulties is less advanced than for learners with physical or sensory difficulties.

6.8 Personalisation

The overall goal of the HT dashboard system outcomes is the improvement of personalised learning experiences. The four areas beneath the overall goal – confident system leadership and innovation, technology-confident effective providers, engaged and empowered learners, and enabling infrastructure and processes – all contribute.

For more than a third of colleges (36 per cent), email correspondence between teachers and learners is the main way in which technology is used to personalise learning. The development of e-portfolios is considered by 8 per cent of colleges to be their most significant contribution to personalisation, and a further 19 per cent identify the use of technology to tailor resources to the needs of the individual learner. The remaining 38 per cent of colleges employ a variety of strategies, including the use of handheld and mobile technology for recording learning situations.

College opinion is almost evenly divided on whether technology is being used effectively to further personalisation, with just over 50 per cent unconfident, and just under 50 per cent confident that technology is having a positive impact.

An element in the personalisation agenda is the use of technology for learners to deepen and extend their learning. Here colleges express greater confidence, with over 70 per cent confident or very confident that technology is used to broaden and extend learners' experience, and just under 30 per cent more sceptical. The main ways in which colleges use technology to broaden learners' experiences and extend their learning are shown in (Figure 28) below.
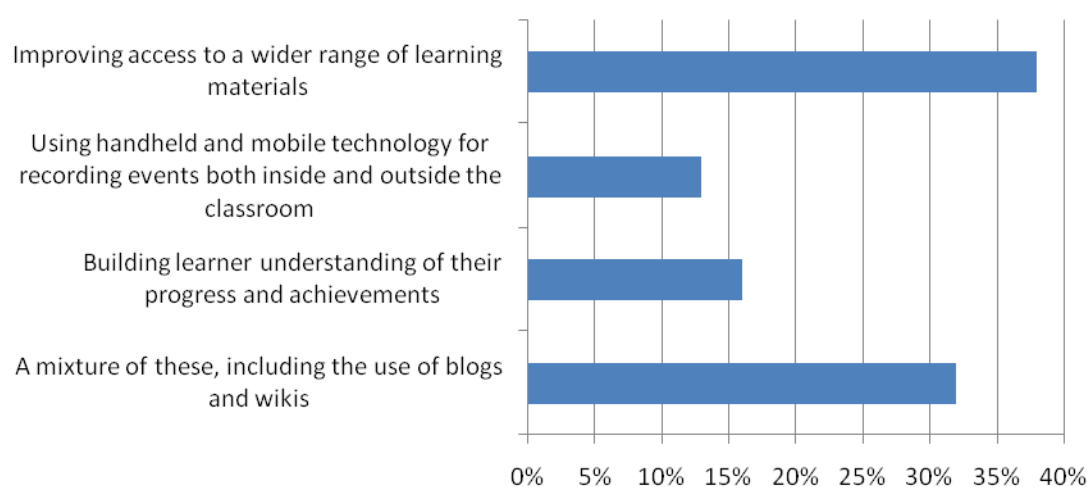
Figure 28: College use of technology to broaden and extend learners' experience

Colleges use technology to broaden and extend learners' experience in the following ways:

- By improving access to a wider range of learning materials: In interview comments, staff describe using a wide range of different resources and techniques for encouraging students to extend and deepen their learning, with electronic quizzes being mentioned by several staff. In particular, staff are enthusiastic about JISC quiz maker:

  "… rather than set them the questions and answers, by the students deciding the questions to ask, they then improve their understanding through their exploration of what the right and wrong answers are." (GFE, NW region)

  Where VLEs have only recently been introduced, staff are particularly enthusiastic about their potential for extending the range of learning materials available.

- By using handheld and mobile technology: Given the limitations in the policies of many colleges, once again the series of MoLeNET projects

provided a catalyst, making staff aware of the possibilities for extending learning:

"Students are really positive and take it up straight away. They like that they don't have to sit in a library to use technology – where they have to be silent and aren't allowed to use Facebook – but taking technology into the classroom puts the learning experience on a different level." (GFE, Yorkshire & The Humber).

Some staff expressed a degree of reservation about the way in which mobile technology is used:

"I would say that mobile technology is incorporated as an afterthought after the course has been developed – it may be different after the MoLeNET project is finished." (GFE, NW region)

- By using blogs and wikis: These are discussed in the subsection Blogs and wikis below.

7 Findings from the staff survey

7.1 Sample details and staff skills

Responses were received from 360 staff in 66 colleges. Usable data were obtained from 347 returns.

The skill levels reported in using ICT for e-learning are notably higher in the staff survey than in the college assessments of staff skills (Figure 29); it seems likely that staff who possessed good ICT skills were more likely to respond to the questionnaire than beginners.
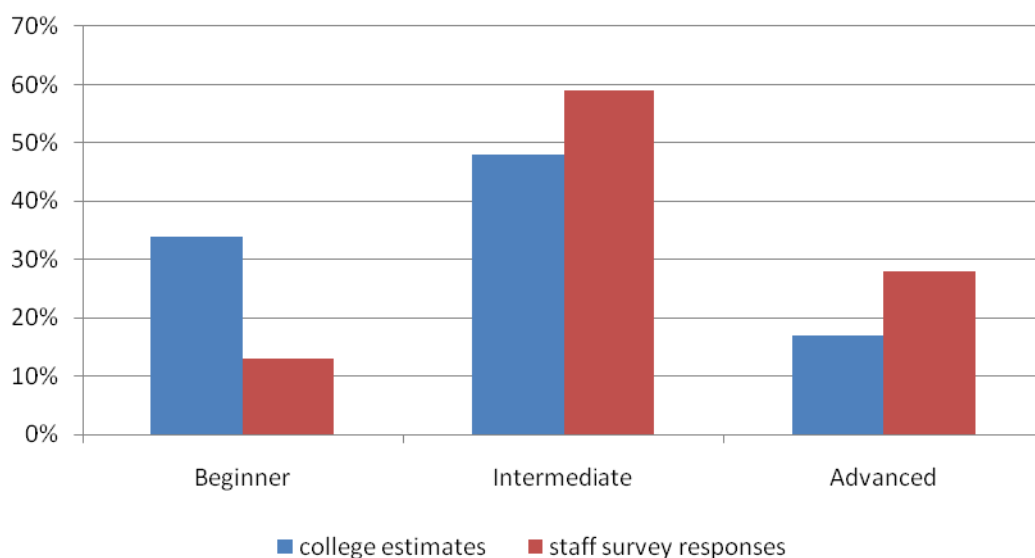
Figure 29: College assessments of staff skills in using e-learning, compared with staff self-assessments from staff sample

It is not possible to distinguish safely between full-time and part-time staff, since a significant number of staff who teach only for small numbers of hours each week may be employed as full-time staff by their colleges.

Nine out of 10 of the staff responding think their ICT skills levels have improved during the past year (between 2007–08 and 2008–09); a third of the sample recorded a substantial improvement (Figure 30).
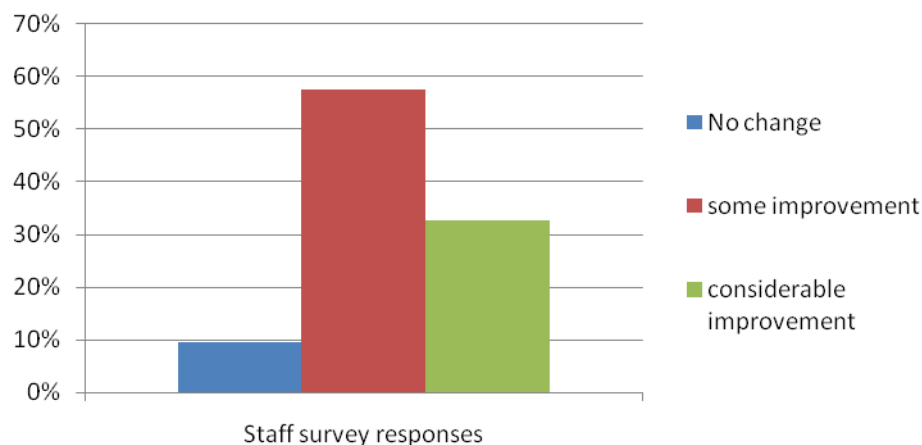
Figure 30: Changes in ICT skill levels in staff survey sample during past year (between 2007–08 and 2008–09)

7.2 Relationship between college and staff surveys

In 33 colleges, at least five staff responded to the staff survey, in addition to the separate college response. Aggregated and averaged scores from the staff surveys in these colleges have been compared with the college responses to the same questions. For this analysis, 28 questions from the first five sections of the survey were used. The questions in Table 12 are the same ones used in the carpet diagram (Figure 1) in the subsection The national picture above, and the same formula was used for data scoring.

Table 12: Questions used in staff–college survey comparisons

Section	Number of questions used
Leadership, innovation and strategy	4
Support for staff	5
Support for learners	6
Infrastructure and data management	4
Personalisation	5

The comparison between staff and college scoring shows some interesting results and a close correlation. Overall, colleges were likely to rate their progress more highly than the staff did (Figure 31).
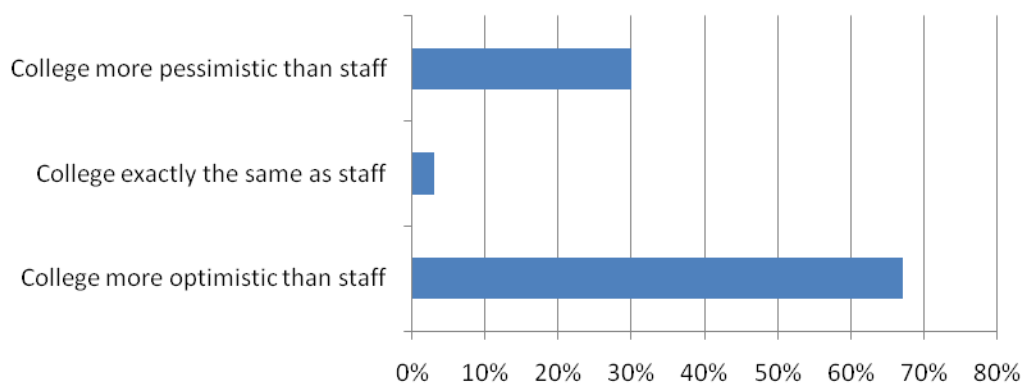
Figure 31: College–staff comparison in 33 colleges

Figure 32 compares college and staff responses in individual colleges.
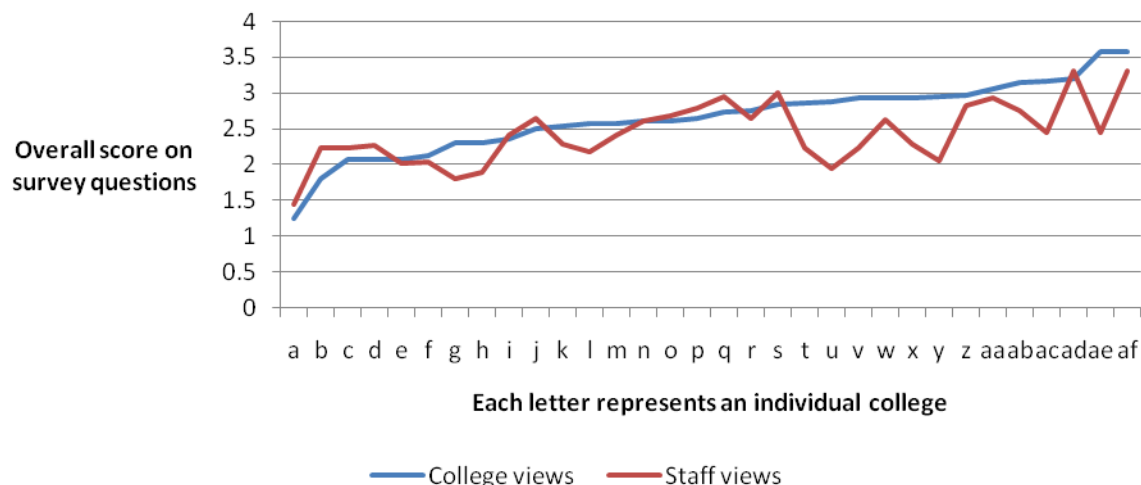
Figure 32: Comparison between college and staff scores in 33 colleges

In only four of the 33 colleges was there a significant difference between college and staff scores. This is an encouraging outcome, strongly suggesting that staff and management perceptions have converged and that the elements of divergence recorded in previous annual surveys have largely disappeared; responses to the 2009–10 survey will be reviewed in detail to examine whether this is a continuing trend.

7.3 Staff use of ILT in their teaching

This section reports on the following: the extent to which staff in the sample report using e-learning in their teaching; the purposes for which staff use e-learning; and the sources of materials they use. A separate subsection Blogs and wikis follows. The section Other important issues arising from interviews, focus groups and

comments then reports on other important issues, and includes two subsections that refer to examples of the effective use of ILT in teaching: Innovation on innovative use of technology, and Success through technology – examples of good practice on examples of good practice.

Almost 40 per cent of the sample report using e-learning with all their learners (Figure 33).
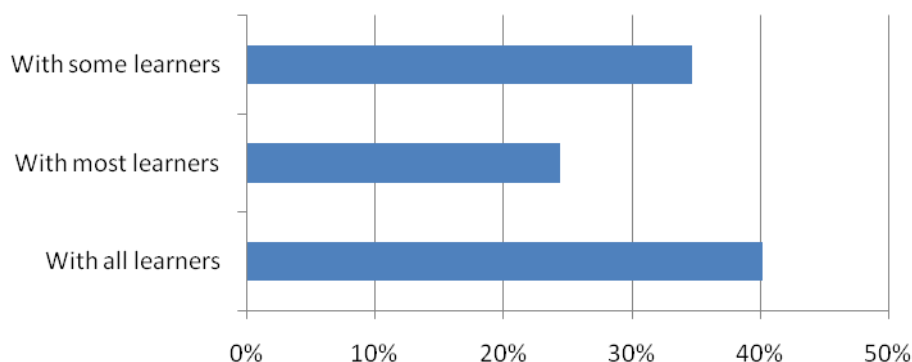
Figure 33: Extent to which staff use e-learning in mainstream programmes

Note that the scores in Figure 33 are aggregated scores – they do not explore the nature of the e-learning used and cannot be directly compared with the percentages in Figure 34 below, which gives the percentage of staff using e-learning for a variety of purposes.
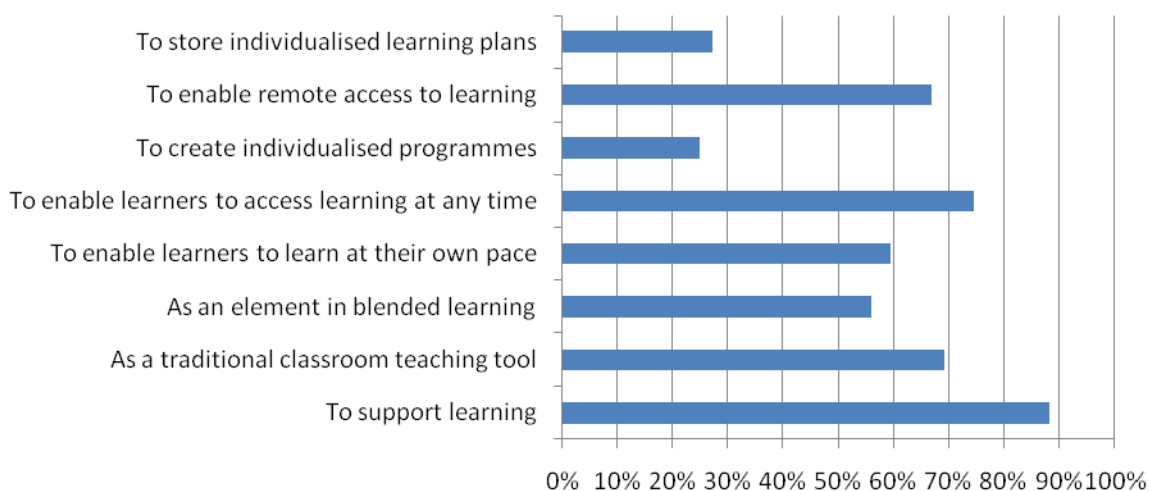
Figure 34: Purposes for which staff use e-learning in their teaching

Even with this relatively sophisticated group of staff, only just over 20 per cent use e-learning to create individualised programmes – evidence that there is still some way to go before the use of technology is highly developed to support personalisation.

Although the facility to enable learners to access learning at any time is largely taken for granted as an important purpose of e-learning, three areas attracted a particularly rich range of comments in interviews:

- Enabling remote access to learning: The following is typical of the positive comments on the potential for confidence-building of this aspect of e-enabled learning:

  "I do believe that remote access and distance learning enables the more proactive learner to indulge engage more without distraction." (GFE, Yorkshire & The Humber)

  The positive effects were not seen simply as the preserve of confident and proactive learners:

  "Students who are likely to have confidence problems, such as late starters, can find the VLE very helpful to catch up." (GFE, SW region)
  Another lecturer thought that the benefits could be achieved by all learners:

  "It gives them an opportunity to share, which means that they have more opportunities to communicate with their peers and tutors – more channels of communication boost their confidence." (GFE, NE region)

- The use of e-learning as a traditional classroom tool: This generated many positive comments:

  "Students find that using technology in the classroom to approach traditional subjects such as literature – for example, Shakespeare – brings a fresh perspective on something that initially feels very familiar to them." (SFC, SE region)

  This applied equally to less academic learners:

  "If students see pictures on Google of overturned tractors, it makes the teaching more real." (AHC, NW region)
  For many learners, especially younger ones, technology in the classroom is seen as the norm:

  "For them, it's just the norm – especially 16- to 19-year-olds coming through home and high school, often with better equipment than us – so we're running after them really." (GFE, NW region)

  Another lecturer echoed this, but with some reservations about older learners:

  "I would say there isn't a particular response – they're so naturalised to the technology that the difficulty comes with mature students and part-time learners. With them you can end up teaching them how to use the technology rather than teaching them the course." (GFE, Yorkshire & The Humber)

This mirrored a concern from a teacher in a SFC:

"I am a little concerned that the students are good at using all the interactive technology, but aren't so good with the static technology – e.g. Microsoft Office packages." (SFC, SE region)

But the overall response of enthusiastic teachers was aptly phrased by a lecturer in a GFE college:

"I use technology as part of my everyday teaching in the same way as I use writing on the board. It allows me to demonstrate the things that would have been very tedious to do before by hand. There are things that would have taken me forever to create and it just seems silly to bother writing it out myself. Also I can just print things off easily and give these to the students, rather than dictating lots of notes." (GFE, Yorkshire & The Humber)

- Supporting learning through e-learning: Technical support for learners and support for learners with learning difficulties and disabilities is discussed in the subsection Support for different groups of learners above. In addition, a wide range of software was mentioned as being effective in supporting learning, as were a number of commercial and social sites. In spite of the restrictions on social networking sites which many colleges still enforce, one lecturer in an AHC commented:

  o "The use of YouTube. And we show students how to use Google to access reports." (AHC, NW region)
  o Unsurprisingly, VLEs were frequently mentioned as the prime source of technology support.

This sample of staff make substantial use of e-learning materials (Figure 35).
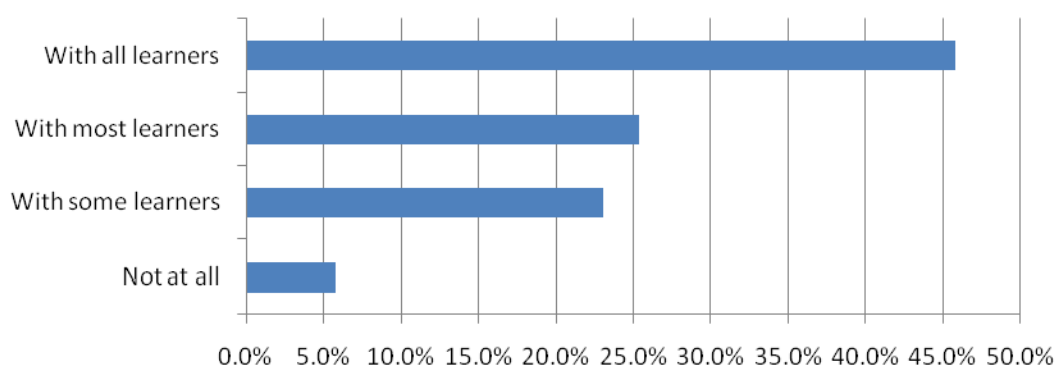
Figure 35: Staff use of e-learning materials

These figures continue an increasing trend; the sources of these electronic materials are shown in Figure 36 below:
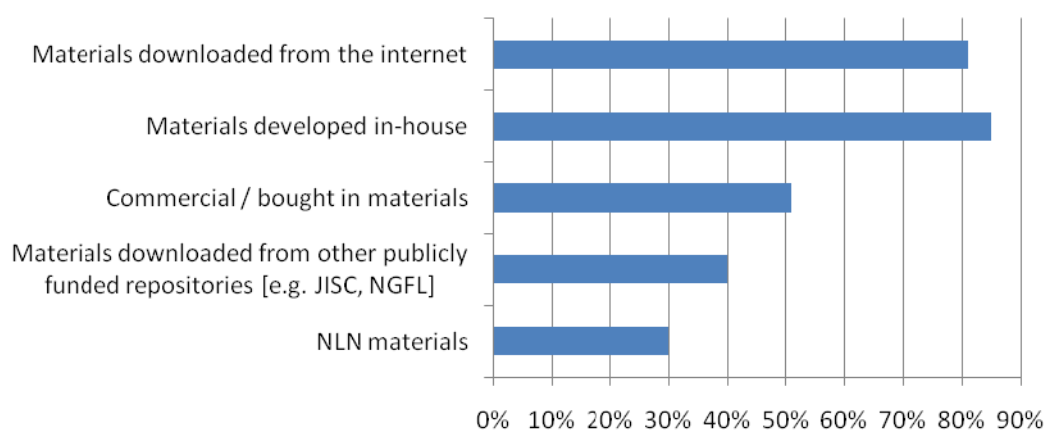

Figure 36: The use of electronic materials from different sources

As found in previous surveys, NLN and publicly funded repository materials are used far less frequently than materials developed in house or downloaded from the internet, and neither NLN nor publicly funded materials are used to the same extent as commercial bought-in materials. The 2007 report identified only around 20 per cent of staff using NLN and other public repository materials routinely, and this figure has scarcely changed. This suggests a continuing problem: either NLN and publicly funded materials are still not publicised effectively enough or they are perceived as difficult to access or of less use than commercial materials. The increasing availability of open source resources is reflected in the substantial numbers of staff using materials downloaded from the internet.

7.4 Blogs and wikis

Among the tools used to extend and deepen learning, the rapid development of college-based blogs and wikis has been noticeable in the 2008–09 survey, with almost a third of staff respondents using them regularly. The use of blogs and wikis attracted much positive comment in interviews and free-response questions.

Wikis can offer an alternative to a VLE when supporting groups of learners working in different locations on a particular task. They have the advantage of being custom built; as a result, activities completed via a wiki are more likely to be 'owned' by learners.

Blogs and wikis are clearly being used in a range of imaginative ways:

"We use them for students to put up anything they've found out to share with other learners and also if they're having problems... Blogs and wikis enable peer-to-peer learning." (GFE, Yorkshire & The Humber)

"It's new tech, but we're encouraging students in several areas to use blogs as part of their reflective practice and also as a method of sharing information – knowing what they're doing and why they're doing it." (GFE, NW region)

"If we've finished a unit of work or are revising. Getting the students to think about the themes, with students responsible for writing an exploration of the themes. It's had an effect on performance; I've always found that the more responsibility students have for their own learning, the more they engage with it – this increases the quality of learning and results." (GFE, NE region)

Although the lecturer above is sure that the use of blogs and wikis has improved learners' performance, and there is universal endorsement that students like them, others are less sure that they improve performance:

"This is difficult to gauge – enthusiasm is easier to gauge. If you hit the mark, the level of enthusiasm is pretty high." (AHC, NW region)

"Difficult to say if performance is improved, because it's so hard to measure. It makes it more interesting for them." (GFE, Yorkshire & The Humber)

"We can't really tell how much they're improving – we could do with online test papers. Things like that would be very useful to have, but, again, time is a constraint." (AHC, NW region)

Other important issues arising from interviews, focus groups and comments

The data-set

The data in this section come from the free-response survey questions, follow-up interviews and focus groups. (The section The 2008–09 survey describes the methodology.)

Many of the college and staff comments are woven into the text of the subsections The self-assessment carpet, Findings from the college survey and Findings from the staff survey to illustrate significant points; the sections below include both college and staff comments. This section explores other important areas not covered in earlier parts of this report.

Innovation

Just under half of the colleges in the sample are confident that they are innovative or very innovative in their use of technology, while just over half lack this confidence (Figure 37).
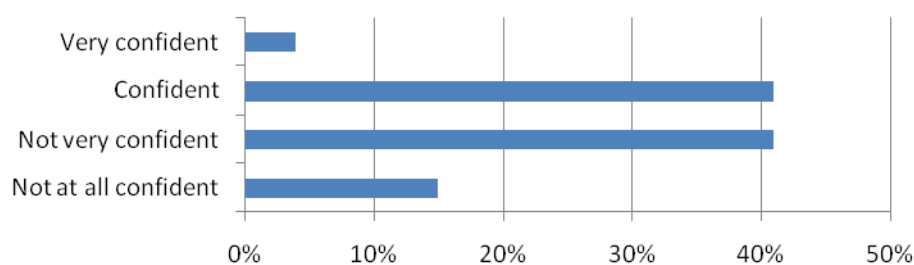
Figure 37: Innovative use of technology: college confidence

The general feeling was aptly expressed by one SFC:

"I would say we are creative rather than innovative – not leading edge, as limited by budget." (SFC, Greater London)

Often innovation, as perceived by the college, involved the creative use of a broad range of current and emerging technology. A strong list of examples was given at one SFC:

"(a) Digital photography: combined use of data projector, internet resources, VLE and handheld cameras – can get over in one lesson what used to take three weeks; (b) data-logging equipment in sciences; (c) paper-free ICT A level; (d) handheld recorders and cameras with voice over for PE orals; (e) using online electronic forums instead of class discussions in sociology – encourages quieter students to contribute." (SFC, SE region)

However, at the same college, possibilities for exploiting handheld technology in other areas had not been considered, except for the occasional use of pictures from mobile phones.

The theme of creative use of existing technology was again well illustrated at one GFE:

"Google Docs for student portfolios and IP [Internet Protocol] for CCTV. Ofsted described VLE as an effective model. Use of wikis in the curriculum, especially in vocational areas – e.g. hair and beauty for 14- to 16-year-olds. Followed this with Foundation Degree hairdressing students (with a partner HEI). JISC case study about to be published: *Effective Practice in a Digital Age.*" (GFE, NE region)

The catalytic impact of MoLeNET projects, with their focus on mobile technologies for learning, was again well evidenced:

"MoLeNET – led sub-regional consortium. Wi-Fi had significant impact, and so did the use of mobiles on ESOL courses." (GFE, Yorkshire & The Humber)

The cautious approach to innovation at a time of significant financial stringency was voiced by a large GFE college in the NE region:

"We have a healthy scepticism about innovation *per se* without assessing sustainability."

The continuing role of ILT champions in leading innovation was questioned in several colleges – generally, but not exclusively, in organisations that are technologically confident.

A large GFE college in the SW region, which had already identified management issues connected with the proliferation of systems, identified another issue in taking a whole-college approach to innovation:

"Web 2.0 for ACL doesn't sit comfortably alongside mainstream college use." (GFE, SW region)

In some colleges, innovation in HE programmes led developments in FE:

"We are particularly innovative in HE: first AHC to have full online Foundation Degree. Now have BScs online. We make considerable use of animations for practical courses: we offer 3D tree surgery online internationally – one Australian student had to switch off his electric fence first!" (AHC, NW region)

7.5   Family and informal learning

The use of technology to enrich family and informal learning is well established in ACL[8] and is one of the two Harnessing Technology goals which were not addressed by the questionnaires. It is much less well established in mainstream FE, and there was little evidence of it from interviews with the sample of colleges. What little was described was on a very small scale, even in technologically advanced colleges:

"There are structures in place to facilitate family learning support on an individual basis." (GFE, NE region)

"I think it does, though I'm not one hundred per cent sure. We've given students the opportunity to take equipment away and learn with that. We also facilitate development in the local community, though this is currently on a small scale." "We have a few community settings: after hours, church halls. We offer a lot of programmes in those settings – core curriculum: Maths, English, elements of IT." (GFE, NW region)

In some colleges, family learning was interpreted as or linked with communication with parents:

---

[8] Ref: evaluation of Doncaster family e-learning project and Sheffield family e-learning project.

"There's two approaches: we have MoLeNET (a VLE essentially) but it's a small-scale course for distance learning. But then that's the tech side. The only other way that we encourage parents to be involved in the learner's progress is through the parents' evening, other than for the compilation of online reports" (AHC, NW region)

"No family learning – but parental access to pastoral and reporting systems." (SFC, Greater London)

7.6   Flexible learning options

Along with the use of technology to enrich family and informal learning, flexible learning was the other HT goal not addressed in the questionnaires; again, the evidence from interviews was scanty. With their relatively narrow and intensive course portfolio, SFCs are unlikely to offer flexible learning options:

"No – very few of the courses we offer have that kind of flexibility. There's only one AS level in EPQ (extended project qualification) – a new kind of AS where students are given independence to work on their own and are given the opportunity to shine and work on their own. At the end, you can produce a video, fashion show, written work, etc (unlimited). The other courses are fairly prescriptive." (SFC, SE region)

However, within the same college as above, there are clear attempts to address the issue of flexibility:

"When time makes it possible, teachers do try to give options to students as to how they would like to learn and how they would learn best." (SFC, SE region)

The difficulties for many colleges are illustrated in one AHC:

"I think there are limitations – we try to engage students using a range of technology and methods, but we have to cater for the majority, and that's just a time and workload restriction. We really don't offer flexible learning options. I think the majority prefer the standard way of learning, and also, because of the volume of students, flexibility gets shifted to the side where you have 60–70 students. We're trying to deliver learning at a price and within a time constriction, and this limits the flexibility we can offer – we're on guided learning hours." (AHC, NW region)

Only one college in the sample indicated that flexibility is potentially universally available:

"We do – it's individualised – we can customise programmes to students depending on circumstance (this applies to every student!) – different modes of delivery: full or part-time, full distance learning, full class attendance, or blended learning. Generally it's offered by the course, dependent on staffing and the type of course, because there'll be some that don't lend themselves to this. Some courses allow students to apply for this, and some course students will need to discuss the options with their personal tutor." (GFE, NE region)

This area requires further investigation in future surveys.

8   Success through technology – examples of good practice

In addition to the examples of innovative practice cited in the subsection Innovation, above, a number of colleges identified recent examples of transformative practice within their organisations. Two threads are common to many of the illustrations given:

- The impact of MoLeNET projects in opening up the use of handheld and mobile devices
- The development of a VLE, particularly in colleges where this was relatively new.

"The college is currently involved in a number of MoLeNET projects which are all at the cutting edge of technology adoption in a wide range of settings. We are also laying out the framework for training our own SLCs [subject learning coaches] within the college, a core element of which will be use of e-portfolios and using online and blended resources." (GFE, NW region)

"Increasing use of the college VLE – Moodle. It's been an explosion of usage – Moodle came in during the last year – it went from nothing to being in everything we do, including capturing student feedback. The capture and dissemination of data in electronic format at the college has come of age." (SFC, SE region)

Two other specific examples are worth mentioning:

"I use YouTube because it's really short 'n' sharp – it breaks up the lesson and the students are very into this. It makes the lesson very current and engaging. Any questions can be answered immediately. Getting them to film each other and other people for interviews/film-making to cover a theory. The quizzes come from places that are already online, and these are given to them as resources." (SFC, SE region)

"Students within construction crafts are required to relate their learning to their day job and bring evidence and examples into their work. They are encouraged to do this by using their mobile phones to take photos or videos of their work. They can then upload these within college, using Bluetooth-enabled laptops. I think this is brilliant as it is a really simple way of evidencing what they do using the technology that they use every day; from my point of view as a librarian, it's great as it gets them into the library to use the facilities to do this and find out what we have available for them to use. I think that technology is used best in this situation where it's being used to fulfil a need rather than being used for its own sake." (GFE, Yorkshire & The Humber)

The theme of technology coming of age is echoed in one comment:

"The college as a whole is starting to be involved in researching and developing teaching ICT resources. It's through the ILT section. The main focus at the moment is on online lecturing." (AHC, NW region)

Although the role of ILT champions has been questioned (see the subsection Innovation above), individual staff appointments can still have a catalytic effect:

"The appointment of a staff member to assist with technology in the classroom – e-study and e- books. The best thing has been a really competent able young man who will come and stand by me whilst I'm teaching, and I learn by watching" (GFE, SW region)

9 Barriers to technology adoption and use

Even in some of the technologically advanced colleges, the familiar resource constraints of money and time surfaced – often linked together, and sometimes related to the resource demands of building programmes:

"Insufficient capital funding – I think this has always been the case. If there were more resources available, they would be used more. Obviously, resources are limited to what we can afford: we don't have a bottomless pit of funding for IT." (GFE, NW region)

"Finance – both for kit and time. Spend has been reduced because of building programme" (GFE, NE region)

"No release mechanisms for staff: schools can try and work this in to their budget planning, but staff budgets are based on 100 per cent utilisation, and there's no central flexibility. It's a business: you make a profit, you can do what like. You make a loss and you're out of business." (GFE, NE region).

Sometimes technology appeared to have duplicated routine tasks and not replaced them:

"Many people would use the ILP if that was the generally accepted sole repository for tutorial information, but tutors are still expected to keep a paper copy of everything, which is effectively duplicating the work that technology is supposed to be replacing." (GFE, NE region)

A large college which had been formed over several years following a number of mergers was still grappling with the fall-out:

"Organisational complexity and curriculum diversity – the difficulties of working multi-site." (GFE, SW region)

Two colleges at opposite ends of the spectrum in their technology progress expressed the contrast starkly. At the low end:

"It's almost a culture change that we need – lack of confidence is a key issue with (older) staff minds closed. Not surprising whilst the network is so unreliable, with too much down time."

While at the confident end:

"There are honestly few barriers to enhanced technology adoption within the college. Staff skills are regularly updated and reviewed through ongoing CPD and appraisals. Good practice is shared as a matter of course and new projects and initiatives are always being explored and implemented."

The theme of unconfident staff was reported by a number of colleges. Several reported rethinking their approaches to training to overcome this, through moving away from large-scale training events towards individual and small-group support:

"Staff worry about showing themselves up, so an individual approach to training is now taken, and this is a diminishing issue." (AHC, SE region)

"Time may be a barrier for some, but I suspect it is often a cover for lack of confidence." (SFC, SE region)

"I believe that ownership is key to encouraging tutors to use ILT resources. Tutors need time to build confidence and use technology such as whiteboards and PDAs, and this means time and space devoted to familiarisation." (GFE, NW region).

10 Signposts

The final chapter of this report pulls together themes and issues emerging from the survey and groups them under areas that can be addressed at the college level and issues that require wider action. The final subsection highlights some of the considerations that need addressing in the 2009–10 technology surveys.

10.1 College considerations – key areas for improvement

Where appropriate, the challenges for colleges described below are linked (in square brackets) to the relevant points in the HT dashboard and Becta's 2009–12 FE and skills implementation plan.

10.2 Technology strategy and planning

When conducting reviews of their strategy, planning and budgeting processes, colleges should now consider technology needs in relation to learning and teaching before the needs of MIS, particularly if the capacity of their systems is less effective in coping with learning and teaching needs than with management and

administration. Developments in this area would lead to gains in overall college efficiency and, more importantly, in the effectiveness of teaching and learning.

[HT – confident system leadership; FE implementation plan – relates to KA 38]

10.3 System integration

The development of e-learning and e-assessment is being held back in colleges where there is a proliferation of different IT systems and where MIS and learner systems operate in complete or partial isolation. This can be a particular hindrance where a college VLE is not populated with learner data from registry systems. Although only 6 per cent of colleges reported no linkages, a further 32 per cent reported only limited links. The roll-out of MIAPP (Multiple Intelligences Applications) may focus developments in this area.

[HT – enabling infrastructure and processes; FE implementation plan – KA 11]

10.4 Data management

While 80 per cent of colleges reported satisfaction with their overall data management and data protection systems, they were concerned that learners did not fully understand key policies and may present risks by downloading software containing spyware or malware. This is one of several areas where there may be gaps between policy at the management level and practice at the grassroots level.

[HT – enabling infrastructure and processes; FE implementation plan – relates to KA 11]

10.5 Infrastructure

Although infrastructure has improved substantially in the past few years, in nearly a third of colleges, their networks still have difficulty in handling large multimedia files. Some colleges have made particular provision restricted to a small number of curriculum areas (e.g. music, film and media studies), but so long access across the college is restricted, so are learning opportunities. The 2007 FE report recommended that requirements for additional capacity need to incorporate any plans that could increase demand, such as increased remote learning, personalisation and the use of e-portfolios, and this recommendation still stands. Although the extension of wireless networks may be inhibited in older buildings, wireless networks offer an important means of increasing flexibility and accessibility.

[HT – enabling infrastructure and processes; FE implementation plan – relates to KA 36]

10.6 Hardware

With hardware prices continuing to fall, laptops and handheld devices are more affordable and offer much greater flexibility than fixed PC installations. Colleges should consider reviewing their acquisition and replacement policies to increase the proportion of portable devices and include provision for usability testing.

[HT – technology confident effective providers; FE implementation plan – relates to KA 36]

10.7 Software

Colleges that have not yet researched the potential savings afforded by open source and a wider range of commercial software should incorporate this research into their technology strategies and include usability testing as routine. The 2009–10 survey will look particularly at the potential of OER (open educational resources) for cost-effective improvements in learning and teaching. Colleges that are not already using software to improve energy conservation should review the cost benefits of doing so.

[HT – technology confident effective providers; FE implementation plan – relates to KA 36]

10.8 Creative use of ILT

Echoing a similar recommendation in the 2007 report, colleges should consider carefully how far technology is used for interactive and extended learning, and how far this is embedded into cross-college practice, rather than simply using technology for demonstration purposes.

[HT – improved personalised learning experiences; FE implementation plan – relates to KA 13 and KA 36]

Sharing expertise and learning resources

Colleges should review the extent to which published policies on sharing resources and expertise are implemented at grassroots level across the organisation.

[HT – technology confident effective providers; FE implementation plan – relates to KA 13 and KA 36]

10.9 Improving learning experiences through technology

Colleges that ban or severely restrict learners from bringing in and using their own devices should review their policies and practice and seek advice from colleges that encourage learners to make maximum use of their own devices. Colleges that have not benefited from a MoLeNET project should engage with the project to explore effective practice.

[HT – engaged and empowered learners; FE implementation plan – relates to KA 13 and KA 36]

10.10 Listening to learners' views

Colleges should ensure that their own internal learner voice surveys explore learners' expectations of and experiences with technology.

[HT – engaged and empowered learners; FE implementation plan – relates to KA 24]

10.11 Management training and development

Colleges should use recruitment and review procedures (e.g. appraisal systems and job specifications) to ensure that all leaders and managers are appropriately trained in the management and exploitation of technology, and that they lead by example through using technology routinely.

[HT – confident system leadership; FE implementation plan – KA 3]

10.12 Building staff confidence in technology adoption and use

Where colleges are aware of staff who are reluctant to engage with technology, they should design training and development on an individual or small-group basis, to ensure that confidence levels can most readily be raised and staff are offered training opportunities with which they feel comfortable.

[HT – confident system leadership; FE implementation plan – relates to KA 3 and KA 18]

10.13 Shared services

Colleges should explore the potential cost benefits of using shared technology services.

[HT – confident system leadership; FE implementation plan – KA 36]

11 Systemic issues

11.1 Funding and finance

Funding bodies need to appreciate that the current problems with the FE colleges building programme have had significant indirect effects on upgrading technology infrastructures; they should prioritise resources to ensure that new and replacement buildings are wireless- and device-friendly.

11.2 Learning environment design

National organisations should actively promote best practice in learning environment design for when learners are off campus.

11.3 Use of e-learning

Reference has already been made in the subsection [College considerations – key areas for improvement](#) to the need for colleges to review the extent to which e-learning is interactive rather than merely demonstrative; there is scope for national agencies to promote good practice and fund exemplar projects.

11.4 Differences between colleges and the wider FESR sector

The comment from one college that the use of Web 2.0 for ACL does not sit comfortably alongside mainstream college use of technology is an indication of possible problems for mixed-economy colleges. The interoperability of systems to enable transfer of learner data and access rights could usefully be researched, particularly in connection with 14–19 learning and Diplomas. There is also a need for more sharing of best technology practice between different FESR sectors.

11.5 14–19

With learner programmes (especially Diplomas) increasingly taking place in more than one organisation and across sector boundaries, there is an urgent need to research and promote best practice in technology use to improve learner outcomes and to ensure that Becta can compare data from the schools surveys with those of the other FESR providers to build a comprehensive picture of the 14–19 activity from September 2009. Key issues include:

- the extent to which providers are already engaged in consortia
- how far consortium members have moved towards shared systems and integration of technology for their learners
- the extent of collaborative delivery
- the technologies being used to track learner attendance, progress and achievement (e.g. learning platforms, MIAPP)
- the extent to which technology is being used by 14–19 consortia to support planning and evaluation, and the extent to which this is being considered in the light of new funding arrangements
- the extent to which there are differences in the use of technology within 14–19 Diplomas compared with current mainstream programmes offered by schools and colleges
- interoperability of systems to enable transfer of learner data and access rights (see above).

11.6 Keeping abreast of trends

It is difficult for colleges (creative, rather than innovative – as suggested earlier in this report) to keep fully abreast of new and emerging trends in technology adoption and use, both within the UK and internationally. There is a role for national agencies to play in disseminating information on trends to colleges, together with links to appropriate research and practice.

11.7 Future survey priorities

Following the completion of the four FESR surveys for 2008–09 and the schools survey, a number of areas should be considered for priority attention when future annual surveys are designed. These include:

- discussion of the possibility of a core group of questions for all FESR sectors
- developing a common approach to surveying 14–19 issues – ensuring that data from the schools survey can be compared with data from FESR providers to build a comprehensive picture of 14–19 activity
- reviewing terminology, for example 'e-maturity'
- discussing sample sizes and composition in the light of financial and time considerations, to achieve greater depth and move away from tick-box responses
- survey overload for institutions, and payback for participation
- developing learner voice research to align with annual technology surveys
- incorporating trends analysis into an annual survey framework.

Appendix A – Contributing colleges, and acknowledgements

Thanks are due to: the FE sector colleges that submitted completed college surveys; the 360 staff from these colleges who submitted staff surveys; the 10 managers and 20 staff who gave telephone interviews; and the 10 staff from two colleges who participated in focus groups.

The 102 colleges represented in this report are:

Abingdon and Witney College	Myerscough College
Accrington and Rossendale College	New College Durham
Barnet College	New College Nottingham
Basingstoke College of Technology	Newbury College
Bexhill College	Newcastle College
Birkenhead Sixth Form College	North Warwickshire and Hinckley College
Bishop Auckland College	Northampton College
Blackpool and The Fylde College	Northern College
Bournemouth and Poole College	Northumberland College
Bradford College	Norton Radstock College
BSIX Sixth Form College	Oaklands College
Burnley College	Oldham Sixth Form College
Burton College	Orpington College
Cadbury College	Palmer's College
Calderdale College	Paston College
Capel Manor College	Portsmouth College
Carlisle College	Priestley College
City College Coventry	Reaseheath College
City College Norwich	Redbridge College
City of Sunderland College	Regent College
College of North East London	Richard Huish College
College of North West London	Rotherham College of Arts and Technology
Coulsdon College	Royal Forest of Dean College
Derby College	Sir George Monoux College
Dudley College	Sir John Deane's College
East Norfolk Sixth Form College	Solihull College
Exeter College	South Devon College

Gateshead College	South East Derbyshire College
Gateway College	Sparsholt College
Godalming College	St Dominic's Sixth Form College
Greenhead College	St Helens College
Greenwich Community College	St John Rigby Sixth Form College
Hartlepool College of FE	Stafford College
Havering Sixth Form College	Stockport College
Henley College	Stockton Riverside College
Highbury College	Sussex Downs College
Holy Cross College	Taunton's College
Hugh Baird College	Thanet College
Hull College	The Manchester College
Kendal College	The Oldham College
King Edward VI College Stourbridge	Wakefield College
Kirklees College	Walford and North Shropshire College
Lewisham College	Warwickshire College
Leyton Sixth Form College	West Kent College
Longley Park Sixth Form College	Westminster Kingsway College
Loughborough College	Weymouth College
Lowestoft College	Wiltshire College
Luton Sixth Form College	Winstanley College
Macclesfield College	Wirral Metropolitan College
Matthew Boulton College	Xaverian College
Middlesbrough College	York College

Appendix B – Glossary of terms and acronyms

The following terms and acronyms are used in this report:

Term or acronym	Explanation
ACL	Adult and community learning
ADPAC	Art, design and performing arts college
AHC	Agriculture and horticulture college
CPD	Continuing professional development
eCPD	Continuing professional development through e-learning
FESR	Further education, skills and regeneration
FTE	Full-time equivalent
Generator	Becta leadership tool for assessing progress of e-enablement
GFE	General further education (and tertiary) college
HE	Higher education
HT	Harnessing Technology
ICT	Information and communication technology
ILT	Information and learning technology
JISC	Joint Information Systems Committee
LSC	Learning and Skills Council
MIS	Management information system(s)
MoLeNET	Mobile learning projects, funded by the LSC
NLN	National Learning Network
Ofsted	Office for Standards in Education, Children's Services and Skills
OLASS	Offender Learning and Skills Service
RSC	Regional support centres of the JISC
SDI	Special designated institution
SFC	Sixth form college
TechDis	A JISC unit which advises on ensuring access to technology
WBL	Work based learning

Appendix C – List of figures and tables

Figures

Tables