
Digital Student: Further education and skills project

Final Report

1. Overview

The Jisc Digital Student project has investigated the expectations and experiences of technology provision held by students coming into higher education, and also funded a small review of current practice within secondary schools. The further education (FE) and skills project ran between 1 June 2014 and 30 April 2015 in order to extend the findings of the Digital Student project to further education and skills.

The project undertook a comprehensive desk review based on 63 reports from the FE and Skills sector, conducted 12 focus groups with 220 learners across six general FE colleges, and contributed to six national consultation events and five other dissemination events. The project has produced a range of resources, trialled and iteratively improved through the consultation events in order to support staff in FE to understand the experiences of all learners when using technology, and to design services which meet their needs. The project resources can be used by colleges to gather experiences and expectations from their own learners. Recommendations are made for colleges, and for Jisc and its sector partners.

2. Aims and objectives

The aim of the project outlined in the project plan was to 'investigate further education students' expectations and experiences of the digital environment in order to make recommendations on the services that could be provided to support learners' use of technology.'

Objectives:

- Review the literature on learners' expectations and experiences of the digital environment within FE and the wider skills sector.
- Conduct primary research in order to understand learners' expectations of technology use during their experiences in FE.
- Recommend how colleges can undertake effective and appropriate evaluations of their learners' use of technology, including how to engage learners in the process, and what support is needed nationally.
- Recommend how Jisc can support FE managers to develop strategies and practice in order to manage and meet students' expectations of technology use for learning.
- Recommend whether further research is needed to investigate learners' expectations and experiences of technology in the skills sector, and what focus it might take.
- Consult on the findings and recommendations with staff and learners in FE colleges and other FE sector organisations.
- Support Jisc to further develop partnerships with FE sector bodies.

3. Outputs, resources, audience and impact

Outputs	Brief description	Audience and impact
<p>Student expectations review (interim report)</p> <ul style="list-style-type: none"> - Bibliography - Executive Summary - Review in full - Summary of findings in useable table (handout) - 'What the research says' slides from consultation events - Blog post with links to outputs 	<p>Comprehensive desk review of literature and practice based on 8 peer reviewed articles, 23 reports from sector organisations, 25 case studies and seven unpublished institutional documents.</p> <p>Found very little research from the sector in the academic literature.</p> <p>The review used a framework provided by the Becta funded 'The Learner in their Context' study to understand and represent the research findings that have investigated the needs and experiences of the wide variety of learners in FE and Skills.</p> <p>Progress of literature review shared with</p> <ul style="list-style-type: none"> - Jisc Learning and Teaching Experts Group, Birmingham 15 October 2014. - Project Advisory Group 20 October 2014 - NIACE Digital Learning Conference 14 Nov 2014 - NUS Festival 27 Nov - ELESIG Digital Futures Symposium, 2 December 2014 - Project Advisory Group 26 January 2015 	<p>Review published on blog December 2014. There were 96 page views as of 16.4.15.</p> <p>Executive summary and Summary of findings (table format) used at early consultation events to consider how to meet the needs of all learners in FE – recognising their differing needs and expectations. Feedback from consultation events showed the value of this 'meeting the needs of all learners' activity and resources:</p> <p><i>The [Meeting the needs of all learners] presentation included a description of different types of student engagement in technology which I found useful and also generated good round table discussion</i></p> <p><i>Meeting the needs of all learners, and to establish methods of helping those that need help.(unconnected and vulnerable, mainstream pragmatists, intensive and specialist enthusiasts.</i></p>
<p>Data collection tools</p> <ul style="list-style-type: none"> - Focus group protocol (script) - Card sort items for printing - Consent form - Learner profile (survey) 	<p>Revised the focus group method (questions and card sort items) from the HE study to be suitable for FE learners.</p> <p>Questions based on the Beetham & Sharpe Developing Digital Learners model asking about access, skills, experiences (practices) and attributes. Gained full ethical approval.</p>	<p>Advice and tools for conducting focus groups published on blog and used at the consultation events. There were 146 page views as of 16.4.15.</p> <p>Many participants mentioned as a result of attending the workshop that they plan to use these tools:</p>

Outputs	Brief description	Audience and impact
	<p>Updated the learner profile from previous Jisc learner experience study. Provided PDF and editable Word versions on the blog in response to requests from colleges to version and use this tool.</p>	<p><i>To do focus group work instead of surveys as it makes sense that students would talk more openly if they feel that their thoughts and opinions matter.</i></p> <p><i>Set up some focus groups to supplement our students survey on the use of digital technologies.</i></p> <p><i>To use the tools given to gather profile of learners as well as teachers and then analyse them to see how to get an effective fit.</i></p> <p><i>To get a better understanding of our students digital profile by utilising the Learner Profile provided</i></p>
<p>Focus groups report</p> <ul style="list-style-type: none"> - Key themes slides, handout and cards for use in workshops - Blog post on conducting focus groups within FE - Blog post on findings from focus groups - Synthesis of key themes with quotes 	<p>Conducted 12 focus groups with 220 learners in six colleges across England, Scotland and Wales.</p> <p>Learners were interviewed in cohort groups studying: Health and Care (Level 3, 1st and 2nd years), Child Health and Social Care (Level 1), Social Care (Higher), Creative Media (Level 3, 1st year and 2nd year), Animal Management (2 groups of final years), IT (Level 3, 1st and 2nd years), Sociology (AS & A2).</p> <p>Reported on seven key themes, written from the learners’ point of view and illustrated with quotes.</p>	<p>Feedback from participants at consultation events:</p> <p><i>Insight into the expectations of the different groups of learners.</i></p> <p><i>This gave a real insight onto how students experience digital environments at their institutions as well as their expectations for their time in FE.</i></p> <p><i>Learning about student expectations in a modern learning environment and hearing about their experiences.</i></p> <p>Proposal submitted to ALT-C for further analysis of focus group and learner profile data.</p>
<p>Guidance materials</p> <ul style="list-style-type: none"> - Learners are challenged when - Learners are supported when - Digital Student posters and postcards 	<p>Initial recommendations for FE managers, Jisc and researchers were developed from the consultation events where delegates were asked ‘What one thing could Colleges and Jisc do?’ (see</p>	<p>Jisc consultation events attended by around 300 delegates including learners.</p> <p>Jisc staff attended events to capture and collate ideas on the Jiscinvolve blog.</p>

Outputs	Brief description	Audience and impact
<p>Recommendations for colleges, Jisc and researchers (workshop handout)</p> <p>Outcomes (Section 4 of this Final project report)</p>	<p>for example 'What one thing?' responses from London event.</p> <p>The recommendations were developed iteratively, being trialled at six consultation events organised by the Jisc team</p> <ul style="list-style-type: none"> Birmingham, 15 Jan (49 registered) Manchester, 20 Jan (48 registered) Bristol, 25 Feb (42 registered) Edinburgh, 4 March (61 registered) London, 25 March (48 registered) Swansea, 23 April (13 attendees) <p>Guidance materials shared at:</p> <ul style="list-style-type: none"> Jisc Digifest, 9 March 2015 ELMAG Developing Digital Leaders online course webinar, 23 March 2015 Jisc Learning and Teaching Experts group, Bristol, 22 April 2015 ELESIG event, 3 June 2015 Dublin City University, 6 May 2015 AOSEC Conference, Sparsholt College, 15 June 2015 	<p>See:</p> <ul style="list-style-type: none"> Post about the Manchester event on the blog Post about the Edinburgh event on the blog <p>Feedback from participants was positive e.g.</p> <p><i>Excellently and efficiently organised with very relevant case studies</i></p> <p><i>Good practical advice and techniques that we can use with our own learners.</i></p> <p>Participants valued e.g.</p> <ul style="list-style-type: none"> <i>Opportunity to engage with materials that can be used to garner student opinion</i> <i>Insight into the diversity of students needs and expectations</i> <i>Hearing about national research, the results of which can be used to support change or introduction of learning technologies within the college.</i> <i>The chance to think about technology from the learner's perspective</i> <p>Numerous requests from HE and FE colleges to use the posters, and promotion from Digital Europe.</p> <p>The project findings and outputs formed the basis of a successful bid to Education and Training Foundation to develop an online course for FE leaders 'Developing Digital Leaders' which ran during March 2015 with 50 participants.</p>

4. Outcomes: key themes

This section summarises the main findings from the project and what their implications might be.

Research context

The desk review undertook an intensive and comprehensive search in order to discover existing literature on learners' experiences and expectations of the digital environment within FE and the wider skills sector in the UK. We found that although the sector is responding with enthusiasm to the digital age, with many examples of creative uses of technology in the classroom captured in case studies, numerous reports from sector organisations calling for change, and some examples of college wide digital strategies, little of this is based on research with learners. Where there has been an exponential increase in studies of how learners' in higher education experience technology, we found only a handful of projects conducted with students in further education and skills. National projects have ceased in response to the closure of important sector organisations such as Becta.

As there is little published research, there is a reliance on reports of practice (case-studies). However, these are most frequently presented from the lecturer's viewpoint, and collections are not tagged or organised to highlight learner voices. Consequently, it is difficult to pull together what is known about how learners in FE and Skills experience learning with technology. An additional complexity is that the diversity in the sector (in modes of study, qualifications, learning contexts, learner demographics) means that it is difficult to generalise about *the* learner experience. It is understandably difficult for FE lecturers and managers to know which research and reports to take account of in their planning. Our approach in the literature review was to make use of frameworks and findings based on trustworthy research and illustrate these with examples using stories and quotes from the case studies. This approach of providing illustrative examples alongside evidence-based frameworks is likely to help FE staff make sense of emerging research findings.

Given the expectation of continued lack of funding for research in the sector, it is likely that colleges will need to take on the responsibility of gathering, collating and analysing their own learners' experiences in a more consistent and thorough fashion than might previously been their practice. Our experience of conducting the focus groups was that there was a low level of awareness of the importance of research and a lack of understanding of how it could be conducted. A significant amount of organisation and preparation was needed in order to set up the focus groups so that they ran smoothly. In order to develop an environment conducive to research, colleges might make use of established tools in institution wide research, commission practitioner-led action research, and support staff to undertake postgraduate study and to write up and disseminate their findings. There are sector specific research journals that welcome research conducted in this sector. FE lectures need to be encouraged to publish their work, perhaps with support from Higher Education researchers.

Our discussions with sector staff and learners revealed that previous mandatory key skills testing on entry to college has all but disappeared. This we identify as a cause for concern and suggest a role for Jisc in developing an initial diagnostic assessment tool, with colleges offering additional support made available where digital skills are found to be in deficit in terms of the requirements of the learners intended level of study. There was support for Jisc to explore the development of a service to support the collection and analysis of data on learner expectations, experiences, attitudes and satisfaction with digital technologies in their studies in UK higher and further education.

The Jisc and other sector organisations could support the sector by providing a national vehicle for assessing, synthesising and disseminating recent findings. They also have a role to play in improving research literacy in the sector such as by bringing together networks of HE and FE researchers, providing usable research tools, negotiating with gatekeepers about

the importance of being involved in research, and working with senior staff to create environments in which research projects can be conducted and completed to the level of quality required for publication.

Meeting the needs of all learners

One of the clearest findings from reviewing existing research is that learners in FE and Skills experience the digital environment in a myriad of different ways. Given the diversity in learner demographics, backgrounds, qualifications and modes of study, this should be unsurprising, however we found sector reports and institutional documents often represent all learners as confident, motivated and positive about the use of technology in education.

Research is important because it helps us to understand where we might be making assumptions or over generalising previous findings. Of the learners that we spoke to in the focus groups, very few presented themselves as 'digital leaders'. They asked us to take care not to make assumptions about their experience with or attitudes towards technology. In general, they told us that they are less confident and need more ongoing support than their lecturers expect. Indeed for some learners their experience of the digital environment is still dominated by issues around access. We met learners who need to be shown basic skills in using computers, VLEs or specialist software in order to access the learning opportunities that are provided for them. It is likely that these learners will need support which is targeted at their specific access needs.

For most learners, their experiences are dominated by issues around use. They can access technology but left on their own, their use of technology is passive and superficial. They recognised that there was much more for them to learn and looked to their college and their lecturers to provide them with ongoing development. Lecturers have a crucial role to play here in devising creative technology mediated activities. In consultation events, staff reported concerns that their colleagues lack confidence for this task, looking to Jisc to provide support and resources, to their managers to provide time and access to modern technologies, and to teacher training courses to prepare a new generation of FE lecturers who are capable and confident to use technology appropriately in their educational context.

For a minority of learners who are skilled and enthusiastic in their use of technologies, their experiences are dominated by the extent to which they are able to appropriate their personal and social uses of technology for learning. We met some learners who no longer use books or pens. These learners often are taking subjects related to their interest in technology. Learners such as these are well supported when they are set challenging goals and given the freedom to explore and use technology independently. Through the consultation events, it appeared that some college infrastructures struggle to meet the demands of such learners who find their college learning environments restrictive and not representative of the industries they are preparing to work within.

Engaging learners in a dialogue

Both the lack of previous research and the great diversity in how learners experience learning with technology are convincing arguments for improving communications between colleges and their learners whether through formal research or informal channels. Fortunately we found learners wanted to work collaboratively with their lecturers, technicians and college managers to explore the technology available. In the focus groups most learners were articulate, co-operative and willing to engage. They valued the opportunity to discuss their experiences within the focus groups and expressed an interest in continuing the discussion with their lecturers. Similarly, staff at the consultation events who tried out our tools (for example, the learner profile, card sort activity) to collect and capture learner voices were keen to use them in their own setting.

However, learners also told us that they did not feel that their views were asked for or listened to. In response to this, at the consultation events, we encouraged staff to share ways in which their colleges gathered learner views. Most delegates

indicated there were a few questions about technology in their annual student surveys (often with low response rates), and there were some examples of student focus groups and/or short surveys as part of a digital strategy and informal methods such as post its in public places, Padlets, etc. Other colleagues told us that they did not as yet collect learners' views. We also heard stories of learner engagement with college practices which took learners beyond the role of the providers of feedback, including student governors, representatives on college council and course team reviews, ICT user groups, annual learner conference, and learners in paid or unpaid roles as ILT champions/Digipals. It would be useful for Jisc to collate and share these examples of how colleges are gathering and using learners' views. Jisc suggested that the **Jisc Change Agents' Network** can also play an important role in supporting colleges with their engagement with learners and encourage partnership working.

As with any engagement strategy, no one method will suit everyone. Learners sometimes said something had not happened or was not on offer, when staff at the same college said it did exist or was on offer. Communications between staff and learners are complicated and it is worth planning carefully and considering a variety of communication methods which together: acknowledge how important technology is for learners, encourage learner voices to be heard, include the variety of learner voices, manage learner expectations and feedback to learners how their voices have been heard and used.

Expectations of a modern digital learning environment

Research sometimes uncovers things we didn't know, or shows us that the world is not as we expected, but it also sometimes confirms what we suspected. We found that, in general, learners in further education have high expectations of technology use. In particular, they expect that technology will enhance their learning, often in practical ways such as online submission and assessment, or the ability to access resources from home or own mobile devices. Such high expectations are typical of research with learners in higher education. Cohorts in further education are also likely to include more learners who are less experienced with technology who need to have the opportunity to discuss such enhancements, in order to create the motivation to continue to arrange the access they need and develop their skills.

Learners expected the same or better services that they had had in school, and as reported in the HE Digital Student study, they wanted services that are robust and reliable, mentioning as we might expect: wireless access, VLE reliability and up to date computers.

Another set of expectations which are distinct to further education is the focus on learning in and for the workplace. Learners that we met frequently expected the college to prepare them for the workplace, some media students mentioning specifically that they expected college to provide industry standard hardware and software.

First steps for colleges

FE colleges are facing a period of rapid change in the use of technologies in the coming years. In response to changing student expectations and the FELTAG agenda, for some colleges, these changes will be particularly challenging. At the consultation events we discussed where a college might start and where they might prioritise resources.

A key recommendation is the need for a college wide digital strategy group (committee or team) that can conduct an institutional audit and work out an action plan. The key challenge for such a group is to ensure that its work is informed by staff and student perspectives and underpinned by local and national evidence. It is going to be important that IT estates managers are visible and accessible within the group. As with any change program, a champion is needed from the senior management team and activities need to be both top down (e.g. curriculum change) and bottom up (e.g. sharing examples of practice).

Given the current pressures on funding in all education sectors it is time for colleges to work together in regional clusters of close geographic proximity to facilitate the economic purchase of IT solutions. Further, national sector organisations have a key role to play in supporting sector leader decision making in the area of technology purchase. Sector organisations must take a proactive role in working together to support colleges in meeting the requirements of the FELTAG recommendations by offering advice and support on the effective delivery of online learning.

Key priorities for colleges are likely to be: developing systems to proactively engage learners in decisions about how technology is used within the institution to support learning, and assessing the development staff need in order to use technology in meaningful ways, allocating additional resources and publically rewarding staff as appropriate.

What is clear is that the managers and leaders in FE are going to need to be the drivers of change. This is going to be a crucial stakeholder group for Jisc to work with in the coming years. The FE Digital Skills project findings and outputs formed the basis of a successful bid to Education and Training Foundation to develop an online course for FE leaders 'Developing Digital Leaders' which ran during March 2015 with 50 participants (see Figure 1). A bid for continuation of the course has been submitted. The course materials will shortly be available for open access.

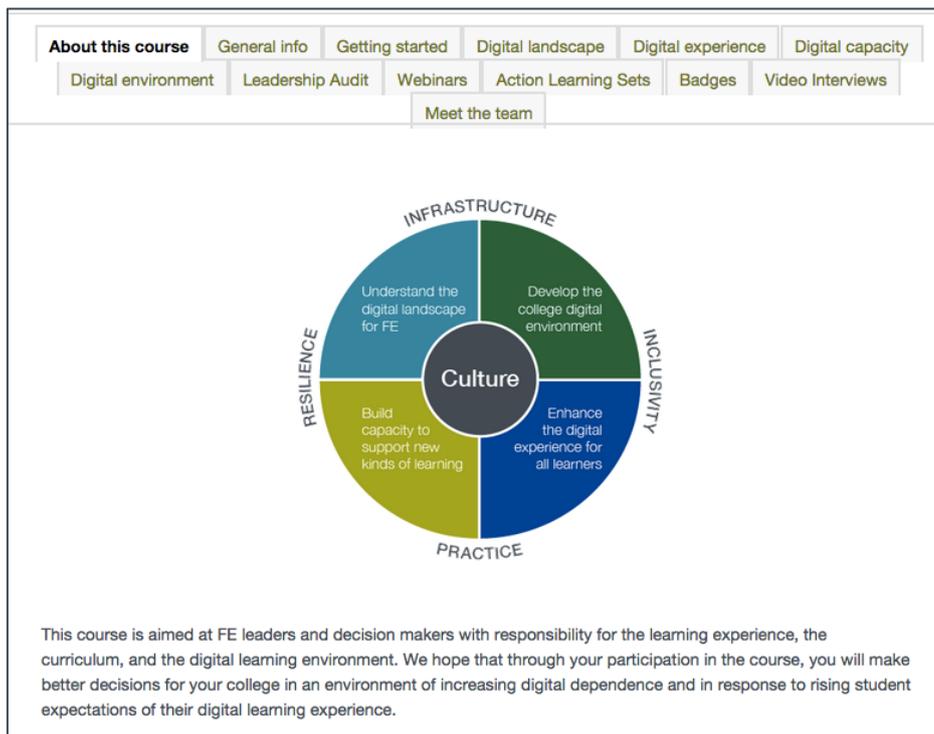


Figure 1: Screenshot from the Developing Leaders for a Digital Age online course.

5. Key challenges

From the results of the desk review, focus groups and consultation events, we can identify the following challenges for further education organisations. The challenges are mapped against those reported in earlier phases of the Jisc Digital Student project:

- » Prepare and support learners to study successfully with learning technology. Learners typically do not understand how to use their digital skills appropriately in an educational context. Whatever level of digital skills learners have when they begin a college course, they, in common with other learners in other educational sectors, need support to use these skills appropriately in an educational context. Learners requested both initial induction and ongoing assessment and continual development, particularly in order to develop more advanced skills and uses of technology.
- » Deliver a relevant digital curriculum. Learners expect colleges to provide what they need to function successfully in the workplace. Learners need lecturers who are confident in using technology themselves and time built into the curriculum to develop the skills they need.
- » Ensure an inclusive student experience. We found that learners' experiences and attitudes towards technology are wide ranging. We captured suggestions from the consultation events about what supports and challenges all learners from the most vulnerable and unconnected to intensive and specialist users of technology.
- » Provide a robust, flexible digital environment. Learners' expectations of digital provision at college are rising in line with their general experiences in school and home. Learners expect services to be as robust and reliable as they are at home e.g. wireless that always works, VLE available without downtime, up to date hardware. Learners expect colleges to provide what they need for study but this varies. For some learners it was important to have access to software out of college, others were concerned to have free printing.
- » Developing coherent policies for Bring Your Own devices. Learners expect multimedia resources to be easily available online and from mobile devices e.g. screencasts, lecture capture, VLE.
- » Engage students in a dialogue about their digital experiences and empower them to make changes. Learners do not feel that colleges ask for or listen to their views on technology. Staff may think they are engaging learners in these conversations but learners don't agree.
- » Take a strategic, whole institution approach to the digital student experience. Crucially ensure that the college approach is informed by staff and student perspectives and underpinned by local and national evidence. College managers and leaders are going to need to be the drivers of change and require preparation and support for this role.

In addition we identified the following challenges, which have not been emphasised in the earlier phases of the Jisc Digital Student project, and which are particularly relevant to the further education context:

- » Learners' digital experiences are strongly dependent on the confidence and capability of teaching staff, yet current workload and career pathways/rewards structures can hinder staff development. Teachers are not well supported and incentivised to integrate digital resources into their teaching. Where there is heavy reliance of casual staff or high staff turnover, this is exacerbating this problem.
- » Engaging with assessment and accreditation bodies to allow, or even encourage, the use of technology in formative and summative assessment and other innovative approaches to teaching.
- » There is frequently not enough technology (hardware and software licences) available for staff and students to use in classrooms and social areas.
- » The lack of funding for research in the FE and skills sector presents a challenge to colleges to conduct their own local evaluations, and for sector organisations to support the conducting, synthesis and dissemination of learner experience research.

6. Institutional solutions

We suggest the following recommendations, refined over the consultation events. These are likely to be most useful for college leaders and managers.

- » Initiate a college digital strategy group, informed by staff and student perspectives and underpinned by local and national evidence.
- » Set up systems to undertake your own regular evaluations of staff and learners' use of technology in order to understand the spread of experiences and changing expectations within your community. Make use of existing data collection tools and practices and encourage lecturers to undertake and share their own small, local evaluations. Consider using technology to create informal, quick and easy ways for learners to provide feedback.
- » Undertake an audit of the extent to which college services are meeting the needs of all learners, from the most unconnected and vulnerable to intensive and specialist users of technology.
- » Engage staff, learners and employers in defining expectations of technology use for staff and learners in your organisation and in their subjects. In particular, facilitate closer working with employers when determining expenditure, use of technology and assessment in order to ensure learners have access to and are using technologies in ways which prepare them for employment and enhance their lifelong employability.
- » Assess learners' digital literacy (in terms of access, skills and practices) on entry and track at set points to see how learners are progressing. Use such diagnostics and ongoing assessments to inform decision about what support is required.
- » Plan carefully how to proactively engage learners in a constructive dialogue about technology expenditure and use within the college. Consider using a variety of methods which acknowledge how important technology is for learners, encourage a variety of voices to be heard, manage learner expectations and feed back to learners how their views have informed decision making.
- » Set clear expectations for staff concerning the integration of technology into classrooms and courses, and their responsibility for developing learners' digital literacies in relation to their subject. Allocate resources to individuals or teams to support lecturers in this task.
- » Review the extent to which teacher training courses prepare lecturers to use technology in college. Target newly qualified staff to shape their behaviour and normalise the use of technology within the college community.
- » Provide supportive and developmental CPD for experienced staff, including lesson observation by peers which encourages experimentation and innovation.
- » Work with human resources departments to explore training, rewards and career pathways for teaching staff, which promote use of technologies.
- » Create the time, access and motivation that experienced staff need to experiment with technology, so that they gain experience and confidence in using learning technologies and create modern learning resources.
- Encourage opportunities for learners to share knowledge, practices and applications with peers.
- Treat lecturers as professionals, encourage them to use research findings, undertake postgraduate study, conduct their own evaluations and engender professional pride in their practice.

7. Sector solutions

We suggest the following guidance for Jisc and its sector partners, refined over the consultation events.

- » Create and share institutional exemplars of college strategies that clearly differentiate between learners, their needs and the resources they bring to the learning environment.
- » Extend the Digital Student work conducted so far in schools, HE and FE to encompass Skills.
- » Collaborate with sector organisations that are gathering evidence about learner experiences and expectations in order to share resources and disseminate findings. Ensure that the findings from the Digital Student projects are brought to the attention of other sectors organisations and working groups.
- » Support senior managers in the FE and Skills sector to develop digital leadership skills. Target dissemination of digital student work for college managers including those responsible for curriculum, estates, learning resources, IT and human resources.
- » Advise on the best models for staff development when staff are short of time. Lobby for a component on technology and pedagogy in teacher training.
- » Advise on appropriate purchases of technology in a market that appears to be increasingly open to private providers.
- » Facilitate action-focussed working days or working groups which take forward suggestions generated during workshops and networking events e.g. to develop digital literacy open badges for learners, prepare a research proposal.
- » Improve research awareness in the sector such as by informing gatekeepers about the importance of being involved in research, and working with senior staff to create environments in which research projects can be conducted and succeed, and brokering research relationships between colleges and their local higher education institutions.
- » Provide FE researchers with tools to collect and interpret learner experiences, whether funded or not ('guerrilla research').
- » Make ring-fenced funding available to higher education researchers for studies to investigate learner experiences within the further education and skills sector. There needs to be funding for large scale projects and/or aggregation of small scale projects.
- » Develop measures of digital literacy, suitable for use in the FE context, which can be used to benchmark and measure learning gain.