

## Scope

This guide:

- outlines the JISC Learner Experiences of e-Learning studies
- highlights what learners are saying about their experience of learning with technology
- synthesises the main findings about the impact of technology on learning from the studies
- makes recommendations for the use of technology in courses and activities

## Who this guide is for

This guide is for teachers and lecturers in higher, further and adult and community education. It may also be of interest to learning technologists, and staff and educational developers involved in the development of e-learning applications.

## Background

The JISC e-Learning Programme has funded a number of projects with a focus on understanding the learner's perspective on the role of technology in learning, to inform the effective development and use of learning environments, tools and services. The studies include:

- **Learner Scoping study.** This literature review investigated learners' experiences of e-learning and their needs and expectations for the future, and made recommendations for subsequent studies of learners' experiences of e-learning across the post-16 education sector (Sharpe et al., 2005)
- **The Learner Experience of e-Learning (LEX) study.** This study explored the learner's perspective on e-learning by gathering rich data from 55 learner participants from across the post-16 education sector (Creanor et al., 2006)

- **Student Experiences of Technologies (LXP) study.** Conducted in association with four Higher Education Academy subject centres, this study focused on learners' experiences of using technologies for learning, with an emphasis on investigating differences between subject disciplines (Conole et al., 2006)
- **The learner's voice.** Five video case studies from across the post-16 sector illustrate learners' feelings and beliefs about technology and the role it plays in their lives and their learning (JISC, 2006)

Outcomes of these and subsequent projects in Phase 2 of the JISC Learner Experiences of e-Learning theme are being used to inform the development of the next generation of learning tools and services funded through the e-Learning Programme.

These projects used methods which record moments in learners' lives, in their own words, and give a vivid insight into the experiences of the learners as they use technology to support their learning. Due to the nature of the research methods used, it is difficult to generalise from the findings. Therefore only themes which emerge from all the studies are reported here.

## Themes and recommendations

In general, the Learner Experiences studies found that learners rely on a wide range of technologies, which they adapt and personalise to their needs. However, despite their sophisticated use of technology in their personal lives, learners do not always find it easy or appropriate to transfer these approaches directly when studying.

These are the main findings that emerge from the studies:

- Learners would like teachers to provide guidance on using academic resources, retrieving and evaluating information from the internet, collaboration with peers, attendance, organisation and time management

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- There is enormous potential for teachers to use the technology that learners are familiar and skilled with, such as blogs, personalised spaces and synchronous communications
- Ownership, personalisation and appropriation of technologies are important to learners because they use technology in their lives. Teachers need to allow and even encourage learners to personalise institutionally supported technologies and, where appropriate, to use personal technologies in tandem with these
- As learners already make use of content available on the internet, the focus for teachers should be on course and learning activity design, rather than creation of more content
- Teachers designing learning activities should not be limited by institutionally provided software. Open designs can allow learners to choose their own tools and technologies – and even their own mode of collaborating with others – while working towards common outcomes
- Tutors should be aware of the skills learners need to perform effectively in a technology-rich environment – including not only technical skills, but the skills of selection, evaluation and critical reflection – and should ensure that all learners are given opportunities to practise and develop these skills

### Sophisticated and pervasive technology use

*“I use a lot more technology in other aspects of my life. I listen to podcasts, watch digital video, take and edit photographs and regularly contribute to more than one blog.”*

Language and communications undergraduate: LXP study  
[Conole et al., 2006, p. 63]

The learners’ voices testify to the central role that technology plays in the social and educational experience of individuals in all areas of post-16 education. Learners rely on a wide range of technologies and expect to be able to mix and match available technologies. They see technology as just another tool to support their learning.

*“I listen to podcasts, watch digital video, take and edit photographs and regularly contribute to more than one blog”*

The Learner Experiences of e-Learning studies found that learners rely on a wide range of technologies, which they use extensively for information retrieval and management, creation of content and communication. In general, learners are adept at personalising and adapting technology for their own use.

Some learners have sophisticated strategies for using the range of tools at their disposal. For example, when choosing communication technologies they distinguish between texting (less intrusive than phoning), instant messaging for close friends and team colleagues, and face-to-face discussion for creating a sense of community and belonging. Learners also demonstrate sophistication in understanding the educational rationale for technology use, such as the benefits of interactive whiteboards for working collaboratively in face-to-face groups.

With such a broad range of experiences and knowledge about technology use, many learners make choices about which technologies to use. They actively choose not to engage with applications and services they do not see as relevant and useful to their studies. They might ‘lurk’ rather than participating in asynchronous text-based discussions, or choose not to attend lectures for courses for which significant online resources are available.

Tutors need to understand these choices if they are to design learning opportunities which engage learners and make use of their expertise. Tutors also need to support learners to make effective choices about how they interact and engage with learning, taking into account the needs of both highly effective networkers and learners whose skills may be more limited.

## Internet as dominant information resource

“I search for what I need using search engines and Wikipedia, and build up a list of things that I need. I reference those through to Word, and send a file to my peers through IM [instant messaging], where I get feedback and additional info on what’s going on and how the thing I’m researching relates to the current area of study.” Applied computing undergraduate: LXP report [Conole et al., 2006, p. 69]

The internet is the first port of call for researching topics, with Wikipedia® and Google™ being the most commonly used information-retrieval tools. Learners report that they start with these tools even if they then go on to use discipline-specific sources or those specifically recommended for their course. Some learners commented that they thought tutors were unaware of the extent to which they use the internet to support their studies.

Learners often have sophisticated methods for triangulating information retrieved from the internet, evaluating the credibility of their sources and avoiding accusations of plagiarism. Teaching staff could draw on this expertise. However, staff should be aware that most learners still need support for these skills and practise using them if they are to avoid plagiarism and make good academic use of the information available to them.

## Content and curriculum design

“Because I have a hearing impairment sometimes I don’t find classroom environments easy to work in and I have other health issues ... if I’m ill and I can’t go to a class then I’ve missed that lesson and I’m relying on somebody else giving me that information, whereas if I’m doing it online I can just go in tomorrow and I’m OK and I can catch up.” Adult online learner: LEX study [Creanor et al., 2006a, p. 13]

Learners report that they value tutor-created information which is made accessible through institutional Virtual Learning Environments (VLEs).

Increasingly, learners expect 24/7 access to their learning resources, especially if they are off site for any time. This is particularly true of learners with disabilities and with family or work commitments.

Learners prefer content in small chunks, respond well to interactivity, and appreciate content they can adapt and reuse. Some learners feel they have difficulty engaging with textbooks and plain text. For all sorts of reasons, therefore, electronic resources have, for many learners, opened up a world of education in which they can succeed.

Learners have high expectations of institutional resources in terms of their timeliness, consistency and interface, and would prefer all course sites to contain similar information in a similar format and location. They also want resources to be updated regularly.

Learners compare VLEs with other technology in their lives and are critical when the information is poorly designed and structured or when communications are sporadic and unreliable. Learners value face-to-face contact as well as online flexibility. To achieve an appropriate blend of these two aspects of the learning experience requires a shift from online content delivery to active, contributory learning designs.

## Communication and social networking

“I use it [discussion board] once or twice a week but I think because we see each other a lot and we use ... MSN Messenger if we’re doing work quite a lot or just do text and then that way I think when you don’t use it [discussion board] as much as other people who would not text their mates or speak to them on the internet.” Postgraduate law student: LEX study [Creanor et al., 2006b, p. 21]

Many of today’s learners use technology primarily for social networking. Drawing on this experience, they expect frequent and prompt communication in their chosen course of study and give this a high

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level of importance. They expect consistency in staff communication channels and response times, and they expect these to be made clear in advance.

Learners often find asynchronous discussion forums (such as those within VLEs) problematic, and they are used less frequently and enthusiastically than other forms of communication. Learners suggest this is due to the lower frequency and promptness of contributions compared with that for other technologies that learners use to support their social networking.

The studies found that learners share work with each other at previously unsuspected levels. Informal learning, facilitated by technology, is also commonplace. Where possible, staff should consider how they could take advantage of and support such initiatives, as well as ensuring that learners understand what kinds of collaboration are academically appropriate.

### Assessment and feedback

*“I will study for the exam and then do the test and see how I get on. It then tells me the weaknesses in my study for me to then concentrate on them.”* Accounting undergraduate: LXP study [Conole et al., 2006, p. 100]

Learners report that a high proportion of their time spent at computers is used preparing assessed work. This might be researching topics, preparing outputs in word-processing or presentation packages, sharing work and collaborating with peers. The design of the assessment determines the activities engaged in by the learner. Learners suggest that if a programme requires learners to demonstrate particular information skills, it makes sense for these to be assessed.

Learners see frequent, regular online testing as enhancing their motivation, time management and performance. Conflicts sometimes arise between the value placed on testing by learners and the perceptions of their teachers. For example, one learner told of staff releasing answers to online tests three days after the deadline for completion, supposedly to avoid copying. The learner thought s/he could have learned much more effectively from this exercise if immediate feedback had been given.

*Some learners are using personal tools to assist them in managing and reflecting on their learning*

### Time and organisation

*“When you’ve got this online timetable on the front page ... that would be brilliant if it could be used more often ... you check your timetable at night and 8 o’clock or 9 in the morning, when you get to Uni and it will tell you things have changed ... it’s just common sense that you check it at the start of each day.”* Medical student: LXP study [Conole et al., 2006, p. 19]

Learners increasingly have to manage their own time, and there is evidence that the formal timetable is fragmenting. Some learners use personal tools – such as the task facility in personal information managers, mind mapping tools, blogs and project management software – to help them manage and reflect on their learning. Others use facilities provided by their institutions, such as e-portfolios. As learners’ lives become more complex, their sources of information more diverse, and their courses more likely to be delivered in a blended mode, efficiency and organisation become key issues.

### Skills: a deepening divide

*“We’re told to make PowerPoint slides. You’re not really given much training about what you can do with it, so then you get a situation, with two students, both giving both the same sort of presentation, one of them knows a lot about PowerPoint and how to really manipulate it to get their messages across using it and other people who don’t really know much about it and it kind of puts a good light on one student and not the other.”* Medical student: LXP study [Conole et al., 2006, p. 26]

As technology use becomes more integrative and sophisticated, the difference between learners who can find, manage, adapt, personalise and present content and those who cannot becomes more marked. A minority of learners in these studies commented about the lack of specific training to support the uses of technology that were expected of them.

Alongside the themes described in this guide, these studies found considerable individual variation in learners' personal use of technology and in their response to technology-supported learning activities organised by their teachers.

Access to computers is still an issue for a small minority. However, the more marked divide is between those learners who are skilled in using technology to communicate, collaborate, and retrieve and organise information, and those who lack these skills.

"I just feel that they [computers] don't cooperate with me ... I find sometimes ... things will just crop up that I've no idea what to do with them ... and I just can't really be bothered to deal with it. It's just a ... hassle sometimes ..." Postgraduate law student: LEX study [Creanor et al., 2006b, p. 9]

The challenge for teachers is to take advantage of the skills that some learners possess in abundance, while removing the barriers for others.

## Further information

Outcomes from the Learner Experiences of e-Learning theme [www.jisc.ac.uk/elp\\_learneroutcomes](http://www.jisc.ac.uk/elp_learneroutcomes)

## References

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