

# Learning and Teaching

What role can information and communications technology play in your learning and teaching?

## Why this issue is important to every college and university

*There is growing recognition that Information and Communications Technology (ICT) has a considerable amount to offer as a tool to support many areas of learning and teaching from its administration, through to face-to-face or remote delivery. Possibilities include: providing access to a wealth of resources, assisting in self-paced learning and assessment; and bringing groups together virtually to promote discussion – all in an environment that can potentially overcome the traditional boundaries of time and physical location or ability.*

*The perceived potential of ICT to help colleges and universities address the challenges presented by increased student numbers, new student demographics and widening participation has brought the concept of 'e-learning' to the fore. This has resulted in considerable pressure on institutions from government to introduce ICT elements into their courses.*

***To be effective, ICT must be placed in the context of a professional approach to teaching, with a holistic view of how it will fit in with the learning objectives of the topic, overall course design, and the assessment and feedback procedures.***

Related topics in this series:

- Accessibility: making ICT available to everyone
- Content
- Legal Information
- Systems
- The Future

## Key issues in this area

The following are factors that should be considered in the use of ICT to support learning and teaching:

- **Pedagogy.** ICT is most effective when used to supplement existing teaching, or provide instruction/access to resources in the absence of existing material. Reflect on your existing course structure, teaching practices, and learning objectives – the introduction of ICT has to be in tune with all of these and not perceived as 'added-on' or inappropriate
- **Assess the cost.** The introduction of ICT offers new opportunities but will rarely lead to cost reduction. Assessing the full cost of implementation is important for planning
- **Consider possibilities.** Key ways to use ICT include providing access to resources (eg web-based study guides), presenting materials (eg electronic presentations) and facilitating communication (eg email dialogue with students)
- **Incremental adoption.** Begin with the simplest technologies; this can still yield good results. Experience will enable you to better assess the implications of using more complex technologies
- **Sourcing materials.** Take advantage of institutional, regional and national sources of materials and advice on best practice
- **Creating or adapting materials** allows ultimate flexibility but often comes with high costs in terms of time and money. ICT is a complex tool; drawing on expertise and collaboration with a subject specialist, a technical developer and someone knowledgeable of best practice in teaching will increase your chances of success
- **Standards.** Aware of recognised technical standards? Using materials that conform will help guard against obsolescence
- **Legal implications.** Does your use of materials comply with relevant legislation, eg copyright, disability discrimination?

For more advice and guidance, see:

<http://www.jisc.ac.uk/advice/>

**What about Virtual Learning Environments (VLEs) and Managed Learning Environments (MLEs)?**

A VLE is an electronic system that can provide online interactions of various kinds that can take place between learners and tutors, including online learning. Many institutions have invested in a VLE; however, even if your institution has one, you will still need to consider all of the issues raised here to make effective use of it.

Managed Learning Environment (MLE) refers to the whole range of systems and processes that contribute directly, or indirectly, to learning and the management of that learning (including VLEs). Many institutions are developing a MLE through joining up their various systems (eg MIS, VLE etc).

**Where to find out more****Pedagogical support**

Learning and Teaching Support Network Centres (LTSNs) provide subject based advice, guidance and resources for learning and teaching in HE. <http://www.ltsn.ac.uk/>

JISC Regional Support Centres (RSCs) providing frontline regional support in the use of ICT for FE. <http://www.jisc.ac.uk/rsc/>

JISC Plagiarism Advisory Service provides generic advice on plagiarism prevention, and access to a national plagiarism detection. <http://www.jiscpas.ac.uk/>

Laurillard, D. Rethinking University Teaching 2nd edition (Routledge, 2002)

Lee, S. 'Background Issues' in Lee, Groves, Stephens and Armstrong (eds)

Online Teaching Tools and Projects (2000) <http://info.ox.ac.uk/jtap/reports/teaching/chapter1.html>

**Sourcing, creating and adapting materials**

Virtual Training Suite - a set of online tutorials designed to help students, lecturers and researchers improve their internet information literacy and IT skills. <http://www.vts.rdn.ac.uk/>

JISC Learning and Teaching Programme [http://www.jisc.ac.uk/index.cfm?name=programme\\_learning\\_teaching](http://www.jisc.ac.uk/index.cfm?name=programme_learning_teaching)

Resource Guides <http://www.jisc.ac.uk/resourceguides/>

Resource Discovery Network (RDN) including case studies illustrating the use of resources for learning and teaching. <http://www.rdn.ac.uk/>

Further Education's National Learning Network <http://www.nln.ac.uk/>

BECTA (including FERL) <http://www.becta.org.uk/>

Learning and Skills Hub <http://lshub.ngfl.gov.uk/>

Creating Online Learning Material <http://www.nln.ac.uk/elearning/guide21.pdf>

Your LTSN or RSC (see above) can also provide advice in sourcing, creating and adapting materials to support learning and teaching.

**Standards**

CETIS - Centre for Educational Technology Interoperability Standards. <http://www.cetis.ac.uk/>

**MLEs and VLEs**

MLE Programme (Integrated Environments for Learners) explores all aspects of the development and implementation of VLEs and MLEs. <http://www.jisc.ac.uk/mle/>

**Assessing the cost**

The JISCinfoNet service supports implementers and planners in further and higher education in the use of new technologies that further enable learning, teaching and business processes. <http://www.jiscinfonet.ac.uk/>

**Legal implications**

JISC Legal information Service (JLIS) provides relevant legal information on this topic via their web site. It does not give legal advice; its materials are for informative purposes only and should not be relied upon exclusively. <http://www.jisc.ac.uk/legal/>

TechDis is a JISC-funded service that works with all staff in further and higher education institutions to provide contextualised help and advice on all aspects of technology and disabilities. <http://www.techdis.ac.uk/>