Editorial

This special issue of the Assessment, Learning and Teaching Journal brings together articles on two significant and topical subjects: technology enhanced learning and innovative learning spaces. The environments in which students learn, and the technologies they use while learning, are both critical factors in the quality of their learning experience. Designed well, both can scaffold learning and support innovative and effective practices. Both are focused on enhancing the student experience. Both are about applying advances in understanding learning processes and associated theoretical understanding. They are of course also more closely connected. They may have direct implications for each other. Increasing use of technology may result in less demand and need for space, for example, and when new and innovative learning spaces are being commissioned, the contribution of technology is an important element of the design. So, the two areas are often seen as complementary and considered together when policy-makers and institutions are planning investment in educational facilities. In short, learning spaces can be enhanced by the technologies located in them, technology can make 'everywhere' a learning space and, sometimes, the technology even becomes the learning space.

This special issue is therefore a very welcome contribution to debates on these important subjects. It is also very timely as Leeds Met has a lot to celebrate in relation to investment and innovation in technology enhanced learning and learning spaces. Indeed, several of the articles arise directly from that investment and innovation. The issue brings together work on both areas from Leeds Met authors, our partners and external authors. Their papers range from case studies on specific uses of technology and space in learning to broader evaluations and discussion papers designed to inspire us to think outside our traditional boundaries. Between them they celebrate successful achievements, offer guidance for others to apply in practice, and reflect critically on issues to be addressed. They challenge us all to consider how we can use technology and space more effectively to enhance our students' learning experiences.

The first three papers all help to situate our thinking on technology enhanced learning and how we should approach it. In his discussion paper, **Stuart Hirst** reflects on how far teaching practice has changed over his 30 years in higher education and challenges us to consider how we can combine the physical and the virtual effectively to create authentic learning experiences for our increasingly digitally aware students. **Jonathan Kennedy** is at the forefront of teaching students who are 'digital natives' at Skipton Girls' High School. His paper, discussing some of the ways technology is being used in the school to support collaborative learning, is a reminder that our students may already be experienced in technology enhanced learning when they join us. **Théo Munyangeyo** compares the attitudes of academic staff and students towards technology enhanced learning, noting that there are discrepancies between student and staff perceptions of the barriers to effective e-learning, and reminds us that our use of technology in assessment, learning and teaching needs to be learner-centred.

The next section presents a series of case studies on the use of technology in assessment, learning and teaching practice. Assessment is one area where technology can offer alternatives to more traditional approaches for formative and summative assessment and feedback. **Ollie Jones** presents a case study of how a peer feedback activity, facilitated through the Virtual Learning Environment, was used to provide formative assessment. **Angela Green and Colin Mitchell** discuss their experience of using multiple choice e-assessments for summative assessment. **Bob Rotheram** highlights the benefits of audio feedback for students, drawing on the outcomes of his successful JISC-funded project 'Sounds Good'.

Technology can also help to provide an authentic learning experience and increase employability, particularly in disciplines where technology may be part of the landscape of work. **Tony Renshaw and Meg Soosay** provide an excellent illustration of this in their integration of the use of state-of-the-art eye tracking technology into teaching human-computer interaction. **Gill Harrison and John Gray** offer a different type of authentic experience, using technology to challenge and inform staff by simulating how disability might impact on students' experiences of viewing a website.

Sharing teaching resources is made easier by technology, which in principle gives us access to high quality teaching materials from all over the world. In his paper on reusable learning objects, **Steve Jones** reports on the results of his recent JISC project and explores the practical aspects of such sharing, highlighting some of the challenges that need to be overcome to reuse materials effectively.

We complete this section with a short reflection by **Stephen Atkinson** on the design of his X-stream module, which won the best student-nominated module category in the 2009 'TEL Us More' competition.

Mark De Groot and Gill Harrison lead us into the final section of the issue, considering the use of web-based conferencing systems such as Elluminate to provide virtual learning spaces for students and staff. Drawing on experiences in using Elluminate at Leeds Met they propose a number of community-driven staff development initiatives to develop its use further.

Innovative use of physical learning spaces is the theme of the next three articles, which consider three different spaces that have been developed at Leeds Met: **Katherine Everest and Liz Lanfear** contemplate the library space, **Victoria Harte and Jim Stewart** evaluate the flexible Enterprise space at Old Broadcasting House, while **Jayne Mothersdale** reviews initial responses to the design of teaching spaces at the new Rose Bowl building. All these articles challenge us to rethink the relationship between space and assessment, learning and teaching, illustrating that flexibility both in terms of physical space and the activities that take place in it is key to a positive learner experience.

This theme is picked up and taken further in the final article in the issue, by guest authors, **Gary Poole and Shane Dawson** from the University of British Columbia and the University of Wollongong, who advocate the concept of 'learning homes', spaces designed to meet the needs of learners and able to be shaped and personalised by learners to reflect their own identities. They argue that we can learn a lot about assessment, learning and teaching by observing such personalisation.

As Guest Editors we are extremely gratified with the response to our call for contributions and believe the articles in this special issue make a real and useful contribution to what we know about technology enhanced learning and innovative learning spaces. We hope you find them as interesting and stimulating as we have. It is exciting to see the range of work colleagues are undertaking in these areas at Leeds Met and beyond. We are grateful to all of the contributors for agreeing to share their work.

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