Keynote Addresses

Keynote Address 1: Thursday, 4th December, 9.15am

Design and co-design for inquiry-based learning

Philippa Levy
University of Sheffield, UK

"Universities should treat learning always as consisting of not yet wholly solved problems and hence always in research mode". In this keynote, Philippa will suggest that this view, put forward in 1810 by Wilhelm von Humboldt, remains just as compelling - and just as challenging to educators and institutions - at the start of the 21st century. At present, there is increasingly strong policy emphasis internationally on mainstreaming student learning through research, from the first undergraduate year. Philippa will argue that this is essential if our aim is to empower students for life and work in a profoundly uncertain and complex world, as well as to prepare the next generation of researchers.

What is the role for digital, design for learning tools in support of this agenda? How might these be developed and used in ways that are consistent with the aim to encourage student ownership of their experiences of learning through inquiry, and to foster inquiry partnerships between students and staff? Philippa's keynote will offer a critical reflection on issues and challenges in design for inquiry-based learning, drawing in part on lessons learned from research into the use of LAMS. A conceptual model identifying eight 'core' modes of inquiry-based learning will be presented, with practical examples of ways in which LAMS can be used to support design in different modes for different educational contexts including in schools as well as in universities. Identifying an important role for students as designers of their own inquiry processes, she willl suggest that there is a need to develop methodologies and tools that explicitly support students as (co)designers of learning.

Biographical notes

Professor Philippa Levy is Director of the Centre for Inquiry-based Learning in the Arts and Social Sciences (CILASS) and a member of the Department of Information Studies at the University of Sheffield, UK. CILASS is a national Centre for Excellence in Teaching and Learning, awarded to Sheffield in 2005. In 2009 Phil is also leading an institutional research/development project at the University, called 'The LRT Project: Integrating Learning, Research and Teaching'.

Philippa's interests are in the areas of inquiry-based pedagogies in higher education, the research/teaching nexus, networked learning and learner support, information literacy, educational roles of information specialists, educational development and change facilitation, space design for learning and teaching, scholarship of learning and teaching. She has published widely on these themes. Within CILASS she is currently leading a longitudinal research project focusing on students' experiences of inquiry, and a literature review/synthesis project funded by the UK Higher Education Academy on the topic 'supporting inquiry-based learning with digital technologies'. In 2006-7 she directed DeSILA, a project funded by the Joint Information Systems Committee, which explored aspects of technology-supported design for inquiry-based learning using LAMS. She has a long history of involvement in research and development for learning, teaching and learner support in universities, including projects funded by the UK Electronic Libraries Programme and the EU Telematics for Libraries Programme in the 1990s.

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Students participating in the learning design process using LAMS

Deborah Evans
Macquarie ICT Innovations Centre, Australia

Project-based learning requires students to take a fundamentally more active role in planning for and creating their own learning. Understanding how they might do this is a complex and multi-faceted problem. It is not just a matter of helping them think up relevant and authentic learning tasks, as teachers it is our role to provide them with carefully thought out scaffolds that enable them to achieve beyond what they could as individuals with the resources before them. This type of learning requires us to think about a number of dimensions of the learning environment including:

- Relationships
- Technology
- Curriculum
- Learning styles
- Information management
- Classroom management

This project evaluated the value of different approaches to setting up students as learning designers and address some of the issues that teachers may encounter when trying to set these projects up in their own classrooms.

Biographical notes

Deborah is currently Centre Director, Macquarie ICT Innovations Centre, Macquarie University. This facility is a collaborative agreement between Macquarie University and the NSW Department of Education. She has worked in NSW DET for 29 years as a primary school classroom teacher, computer coordinator, Assistant Principal and now Centre Director. Her experience in the integration of information and communications technologies began in the mid 80s with the Computers in Schools program. In 2003 Deborah was introduced to the earliest version of LAMS and has worked with students and teachers ever since to design, implement and evaluate innovative ways of enhancing teaching and learning using dynamic and emerging technologies such as LAMS.

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Closing Keynote : Thursday 4th December, 3.30pm

Curriculum frameworks and Learning Designs: A virtuous circle

Professor James Dalziel
Macquarie University, Australia

While curriculum frameworks can be important guides to the use of ICT in education, there is often little direct relationship between the learning objectives and/or competencies of a specific component of a curriculum framework and generic e-learning tools like a Learning Management System or Web 2.0 tools – instead, the teacher is expected to configure "by hand" the generic tools to suit a particular curriculum purpose. One problem arising from this process is that good e-teaching ideas aren't easily shared between e-learning systems (as they only ever exist as one off "by hand" configurations by teachers). However, Learning Design provides an opportunity for direct mappings between specific objectives/competencies and specific sequences of student learning activities, and also for easy sharing and re-use of sequences among teachers. A clear advantage of connecting objectives/competencies to specific student activities is the ability of teachers to search through curriculum frameworks for ready-to-use "digital lesson plans". A less recognised but equally important feature of this connection is that teachers can sometimes find curriculum frameworks difficult to translate into practical activities in the classroom, whereas seeing an exemplar digital lesson plan can aid understanding of the underlying intent of a particular objective or competency in a curriculum framework. This presentation will propose a virtuous circle between curriculum frameworks and Learning Design, including discussion of new curriculum mapping features in LAMS and the potential benefits of these features for the new Australian national school curriculum.

Biographical notes

James is the Director of the Macquarie E-Learning Centre Of Excellence (MELCOE) in Sydney, Australia, and also a Director of the LAMS Foundation and LAMS international Pty Ltd. He is known nationally and internationally for his research into and development of innovations in e-learning, and technical standards. James has directed and contributed significantly to e-learning projects such as the Meta-Access Management System project (MAMS), The Collaborative Online Learning and Information Services project (COLIS), and the Learning Activity Management System (LAMS) project.

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