Chapter 13 Supporting Teachers in Optimizing Technologies for Open Learning

Diana Laurillard University of London, UK

ABSTRACT

Teachers using open learning, who wish to make good use of digital technologies in their teaching and learning designs, have some difficult issues to confront. The chapter begins with the idea that only teachers have the knowledge, experience, and appropriate context for developing digital learning methods. It makes the case for giving teachers sufficient time and professional development to achieve the skills and new thinking needed, and specifically for the idea that teachers should be in the forefront of innovation needed for using new technology. Using a formal representation of what it takes for an organisation to innovate, it outlines the teacher requirements for being able to innovate in learning design. On this basis, it illustrates what we might do, using online design tools, to support teachers in their work as they construct new technology-based forms of teaching and learning for open learning.

INTRODUCTION

Teachers using open learning, who wish to make good use of digital technologies in their teaching and learning designs, have some difficult issues to confront. Whether they want to improve the technology they are already using, or wish to migrate from conventional to blended or wholly online teaching, they have to learn about a very different approach to teaching and learning, continually develop new digital materials and online

ment work that has to be done on top of the delivery of their current teaching. Some institutions recognise this and allow staff significant time to develop their ideas, skills, and designs. Very few allow adequate time. However, managers' and politicians' expectations of teaching staff keep expanding: They should learn to be ahead of their 'digital native' students, should build 21st century skills into the curriculum even though they have not been trained themselves, and should develop

activities ahead of the start of the course, and keep up with the rapid advancements in technological

capability. This is complex design and develop-

DOI: 10.4018/978-1-4666-3978-2.ch013

new ways of conducting teaching and learning. It is an impossible task, and it is time to recognise that teachers deserve far more help with the development of open and blended learning.

We begin with the idea that only teachers have the knowledge, experience, and appropriate context for developing digital learning methods. They know their students, see how they respond to the teaching, and analyse and reflect on what they produce through marking their work. From this experience, teachers are best placed to know what students will need if they are to master the concepts and cognitive skills of formal learning. The act of teaching provides the fieldwork that needs to be carried out to test, re-design, and retest the new methods being developed. Effective use of learning technology will not come about unless teachers are at the helm of innovation. It will not come from software companies, or systems developers. It can only come from those who have committed themselves to enabling students to learn, and will seek out whatever method it takes to help them.

We can make a very good case for giving teachers sufficient time and professional development to achieve the skills and new thinking needed, and there have been some initiatives to do that. But the time and the training never really meet the need, especially as the rapid development of the technology means that teachers will continually need updating. With that in mind, a new project is exploring a different approach: creating tools for teachers-'power tools'-that will enhance their ability to innovate, and enable them to explore, experiment, test, and share their ideas as a professional community. There have been several initiatives in recent years to develop computerbased tools to aid learning design (Laurillard & Ljubojevic, 2012), but the aim here is to support adoption, adaptation and innovation in a way that enables teachers to build knowledge of learning design through sharing their innovative ideas.

Teachers given the opportunity enjoy innovation. Every type of new digital opportunity has been recruited for use in education, even though almost none are actually developed for education. But pilot projects and small-scale isolated innovations do not create the engine of progressive innovation we need if the sector is to optimize its use of technology. The project is the 'Learning Design Support Environment for Teachers and Lecturers' (LDSE), a collection of tools to support learning design and the exchange of ideas on how best to use technology. Historically, tools have provided the major engine of human development, because they improve the efficiency of human effort (Wolpert, 2003), so perhaps a tool for teachers will make the critical difference to changing what they are able to do with their students.

OPTIMISING TECHNOLOGY ENHANCED LEARNING (TEL)

There is a continuing dilemma for technologyenhanced learning, that, despite its ever-increasing potential, it has still not succeeded in radically improving the quality and reach of education. There have been many studies over some decades now, which demonstrate localized benefits for specific technology-based interventions (Tamim, Bernard, Borokhovski, Abrami, & Schmid, 2011). Research and development in education has kept up reasonably well with the explosion of new technologies and digital tools, although most of them are created for business or leisure contexts. rather than for education. The resourcefulness of lecturers, teachers, and learning technologists is prodigious, and the increasingly user-oriented nature of current innovations, such as social networking and user design tools, matches well the requirements of learner-oriented approaches now favoured in education, so the field continues to generate evidence that learning technologies have the capability to achieve significant improvements in the quality of learning. But these are all small-scale, localized improvements, which are not funded to scale up and achieve widespread 12 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/supporting-teachers-optimizing-technologiesopen/75651

Related Content

Information Technology Certification: A Student Perspective

Tanya McGilland Michael Dixon (2005). *International Journal of Information and Communication Technology Education (pp. 19-30).* www.irma-international.org/article/information-technology-certification/2252

Multimedia Content Development

France Belangerand Dianne H. Jordan (2000). *Evaluation and Implementation of Distance Learning: Technologies, Tools and Techniques (pp. 129-170).* www.irma-international.org/chapter/multimedia-content-development/18638

Mobile Wireless Technologies Application in Education

Maryam Haghshenas, Abouzar Sadeghzadeh, Roghayeh Shahbaziand Mojtaba Nassiriyar (2015). Assessing the Role of Mobile Technologies and Distance Learning in Higher Education (pp. 311-332). www.irma-international.org/chapter/mobile-wireless-technologies-application-in-education/121237

Technological Supports for Onsite and Distance Education and Students' Perceptions of Acquisition of Thinking and Team-Building Skills

Jennifer D.E. Thomasand Danielle Morin (2010). *International Journal of Distance Education Technologies* (pp. 1-13).

www.irma-international.org/article/technological-supports-onsite-distance-education/42091

Designing Foundational Courses

Barbara A. Frey, Richard G. Fullerand Gary William Kuhne (2011). *Distinctive Distance Education Design: Models for Differentiated Instruction (pp. 158-168).* www.irma-international.org/chapter/designing-foundational-courses/45073