

Technology and Change in Educational Practice (Guest Editorial)

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The collection of papers in this Special Issue of Educational Technology and Society features a selection of the best papers from the Conference *Technology and Change in Educational Practice* held at the London Knowledge Lab, Institute of Education, London in October 2005. The conference was held as part of the Kaleidoscope Network of Excellence, Jointly Executed Integrating Research Project investigating the *Impact of technology-enhanced learning on roles and practices in Higher Education*. The focus of the conference, and indeed this special issue, was on work that explores current trends in technology implementation in Higher Education and research that increases our understanding of subsequent changes in roles and practices of those involved in Higher Education provision. Rather than simply seeking more of the same, however – another case study, one more experiment – we took an active stance on encouraging contributions that offered new perspectives, looking for papers that might change the way that we understood this topic rather than just add to it. This conference provided a forum in which research into these developments could be shared and debated – a necessity, given the way in which contributions sought to re-position the field – and the contributions, together with the discussions that followed, have provided the basis for this collection of papers.

Recent technology innovations have led to a number of claims about their potential for learning. The rapid growth of computing, networks and infrastructure offers not only an increase in available technologies for learning, but also a change in its potential use in education. The subsequent impact of such rapid and diverse technology development on various staff roles and practices is extensive. Much research focuses on the impact of technology on learners, but surprisingly little specifically addresses the impact on the *providers* of technology-enhanced learning. But it is these providers that will ultimately be the key to successful use of technology in education, both in terms of effectively embedding it into educational practice and in terms of its educational value. As such, understanding the effect of technology on roles and practices is critical for the process of adopting technology appropriately within the education system.

Even if research shows that a particular technology supports a certain kind of learning, this research may not reveal the implications of implementing it. Without appropriate infrastructure or adequate provisions of services (policy); without the facility or ability of teachers to integrate it into their teaching practice (academics); without sufficient support from technologists and/or educational technologists (support staff), the likelihood of the particular technology or software being educationally effective is questionable.

One particular set of questions about this process concerns the degree to which technology concurs or conflicts with existing practice or policies, and any subsequent implications necessitating change. How well is it embraced and taken up? How well is it welcomed by those whom it most affects? Sometimes change is not always overt when technology is implemented, and may take place over time as the technology use is gradually embedded in practice. Understanding the underlying mechanisms that hinder or support the processes of change can inform ways of supporting the implementation of other new technologies and engineering the associated changes in practice necessary for their effective educational use.

A further, more comprehensive concern is that this field of research is complex. It currently offers a diverse collection of studies, and lacks a coherent framework for integrating them. This raises important issues for conceptualising impact and change relating to technology enhanced learning, as well as choices of methodology, the execution of empirical studies, and the relevance of this work to the wider research field.

This field of research is of central importance to a number of different disciplines (education, computer science, design), practitioners (tutors, support staff, education developers) and providers of technology-enhanced learning (policy makers). In particular it serves to inform educational policy; staff training, academic and support, and continuing professional development; pedagogy, including effective ways to integrate technology into teaching; design of technologies, including infrastructure, software, and devices; and ultimately contributes to the potential to offer effective technology-enhanced educational practice. Presently, its message is confused; there seems to be little in the way of clear advice that we can offer to any of these groups. This journal special issue seeks to address this problem: by positioning work in the area more clearly, and considering the relationship between technology and its users, we hope to make research more relevant by making it more coherent.

The papers in this issue are clustered into three areas of concern: methodological frameworks, proposing new ways of structuring effective research; empirical studies, illustrating the ways in which technology impacts the working roles and practices in Higher Education; and new ways of conceptualising technologies for education. Given the current stage in development, deployment and integration of technology into education, the papers in this collection provide an illustration of the broad nature of research perspectives essential for developing our understanding of the relationship between technology and educational practice and a focus on change in educational practice and perspectives, actual or potential, arising from the existence of technology. There may be contrasts and contradictions between the papers – but this was our intention from the outset: not to close down the discussion about technology enhanced learning, but to open it up, to look at it in new ways. The research here offers the chance to stand back from the detail of particular studies and consider broader, more fundamental questions. What does this mean? How should we understand it? The variation across the papers included here shows that these debates are still live; they also show that researchers are, increasingly, able to identify distinctive answers to these questions.