

Use of Digital Technologies in Education

Trevor Male (Guest Editor)

Final accepted version – for EducationalFutures, 7 (3) pp.2-4

This special edition of the e-journal Educational**futures** has been produced for publication to coincide with the annual BESA conference in Wolverhampton at the end of June, 2016. It consists of five papers and one book review which explore aspects of the challenges facing education in the next few years. This edition thus chimes with the conference theme of “Education Studies – the next ten years”. In addition to being guest editor for this journal I have also been invited to open the conference with a keynote address which will be entitled “Education in the twenty-first century: Implications for schools, colleges and universities”.

Central to theme of both the conference and my keynote address is the use of digital technologies in education which, in my view, have produced the biggest challenge to the way we teach and engender learning since the introduction of the printing press. Whilst the nineteenth century was focusing, at least in advanced economies, on the provision of universal basic education, the twentieth century was characterised by technological developments which aided teachers in their role as first order practitioners in formal learning environments. Such advances included the radio, television, projectors, photocopiers, audio/video recording and interactive whiteboards. At all stages, however, the teacher tended to remain the central figure for engendering student learning in formal education settings. With the development of digital technologies in the twenty first century the potential for changing the relationship between student and learning has been enhanced in a way that threatens

the centrality of the teacher and offers ways of enhancing learning that have not always been available before.

Evidence suggest, however, that adults who run or are employed in formal educational organisations and settings have yet to come to terms with the potential for use of these digital technologies or to effectively make use of them in their relationships with students as learners. In this journal the term 'digital technologies' refers to multi-functional devices with Internet connectivity, particularly those that are handheld, portable and wearable. Everyone typically now owns such devices and uses them in their personal life for a variety of causes. Their use is endemic, highly visible, increasingly intrusive on our time and privacy, but on which we are becoming increasingly reliant. Indeed, the current generation of young people, especially those born in this century, do not know a world without instantaneous access to the Internet and are often more experienced and capable with online and live interaction with data sources and information than they are with reading the written word.

Formal education remains based on the technology of the book, however, and on the expertise of the teacher to transmit knowledge (at worse) or inspire learning (at best) through media and techniques that would not have been out of place in the nineteenth century. In this journal it is argued that the availability and capability of digital devices in the current era have the potential to change the traditional dynamics and pedagogical patterns of the learning environment in schools, colleges, universities and other educational settings. The combination of traditional Internet access (fixed location) and personal Internet access (mobile devices) thus provide the opportunity for educators to explore a number of trends in this new era.

Five papers are presented in this special edition which explore the potential impact of the current digital age on the way in which we organise and provide formal learning opportunities. Two of the papers explore generic issues emerging in this new era whilst the other three examine specific issues arising from the introduction of digital technologies within developing education systems, in this case within the countries of Kuwait and of Saudi Arabia.

The first article is my own and has been developed as a result of my involvement in a number of research projects within the last five years that have investigated the ways in which young people in schools, colleges and universities are able to bring their personal expertise and experience with the use of digital technologies into formal learning environments which are organised and controlled by adults who do not have similar high levels of capability for working in these data rich times. This argument and the paper presented by Paul Hopkins both illustrate the ways in which systems, attitudes and behaviours need to be adapted if the potential for learning of these devices is to be maximised. There are fundamental issues to be reviewed in terms of teaching practices and learning opportunities which could radicalise the ways in which we perceive effective schools, colleges, universities and other educational settings. Both papers highlight the need to explore learning theories that are based on collaboration and problem solving rather than on knowledge transmission.

The other three papers investigate the ways in which two wealthy countries in the Gulf region are attempting to deal with the potential of digital devices as they seek to build an education system that equips their children with the means to use this material

wealth to build the social, intellectual and cultural capital of their respective nations. The paper by Aldhafeeri and Palaiologou is based on surveys undertaken with parents and very young children (aged three to six years) in the state of Kuwait. Their findings demonstrate that digital technologies are nowadays embodied in the structure of daily life in households and children's lives and that this has implications for education in terms of how societies support children's learning through making them a part of their cultural capital.

The remaining papers focus on the development of the education system within the Kingdom of Saudi Arabia. The research undertaken separately by Alghamdi and Alzaharani is combined into a single paper which explores the use of electronic systems and services to support the process of supervision, which is a key aspect of the accountability and developmental processes within the country. Their emerging model of e-Supervision demonstrates the way in which their nation is coping with rapid population growth whilst transportation and personal contact remain problematic in what is a physically large country. The paper by Alshathri addresses similar logistical issues in relation to higher education and investigates the challenges faced in trying to implement eLearning within a national culture that has a strong traditional conservative approach to learning and teaching. Such were the difficulties faced by universities seeking to provide open and distance learning opportunities that all responsibility for the development of eLearning was transferred to the newly formed Saudi Electronic University who are now seeking to offer effective provision through the use of Blended Learning.

Finally, this special edition ends with the review of an excellent book by Neil Selwyn, published in 2016, which asks the question ‘Is technology good for education’? This is an important question as it is all too easy to become enthralled with the technology, rather than with the challenges they present to ensuring the provision of effective learning environments. In fairness, each of the papers within this journal does explore the potential for negative outcomes from reliance on technology and thus do avoid single minded approaches. The evidence is clear, however, and as one headteacher suggested in a recent research interview of which I was part: “You can’t uninvent it, so you have to therefore educate the children and the families to prepare the children for what they may come across and how then to proceed and deal with it” (Male and Burden, 2014: 431). Let’s do that for all levels of education!

Trevor Male, UCL Institute of Education

June, 2016

Reference

Male, T. and Burden, K. (2014). Access denied? Twenty-first-century technology in schools. *Technology, Pedagogy and Education*, 23(4), 423–437.