Chapter 11
Educational Technology Goes Mobile:
Why? A Case Study of Finland

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ABSTRACT

Recent decades have revealed that the digital educational technology that is expected to revolutionise schooling for generations to come, is fraught with challenges. One major challenge is that educational systems vastly vary between cultures and countries. The differences start from the conceptualisation of education and school. It is, therefore, quite inaccurate to handle education as a universal concept. In this article the authors evade generalisation by discussing the use of mobile technology in the schools of one single, relatively homogenous nation: Finland. The backbone of their analysis is the core national curriculum of basic education. The appropriateness of mobile technology in the school context is reflected upon through the objectives and ethos of basic education. The conclusions are discussed in terms of their contribution to the understanding of the use culture of mobile technology.

INTRODUCTION

Using technology in education to enhance learning is an ancient idea. Every school is made up of a myriad of technological constructions, many of which may be classified as educational technology. Recently, however, there has been an exceptional amount of publicity and research activity around educational technology, as characterised by information technology (IT) – that is, artefacts and systems substantiated by IT and designed with the intention of being utilised in the context of learning. In this article we analyse the relationship between school and technology, focusing on the latest phenomena in the domain, and try to understand why there is so much talk about this topic right now. What is intended to be empha-

sised in this article, is that most technologies, even educational technologies, are not necessarily digital or information technology by nature. Rather, language, writing and print technologies, electricity and even the architecture of schools are technologies. Moreover, schools can be interpreted as institutions for conveying these conventions, and indeed are in their own right technological constructions - so, then, why now the emphasis on educational technology?

Before going deeper into educational technology, we need to clarify the concept of educational technology. At first sight, defining educational technology appears a trivial task but both education and technology as concepts can, in fact, be non-trivial.

To build on what was previously described, let us start with technology. Technology is not simply a means of aiding computational processes, but has always been a central phenomenon in human life. This brings to light the importance of the term 'technology' as referring to anything that has been devised by human beings, through their intellect and intention, in order to solve problems and improve circumstances (Buchanan, 2017), in other words, technologies are tools. Language is technology (Mufwene, 2013), as are cave paintings and sticks that are deliberately selected to draw markings in the earth through which to communicate stories (d'Errico et al., 2016). This view of technology can be likened to that of observing technology as the design of symbolically-mediated behaviour – the basic premise of information technology. Furthermore, when defining what technology is, we may refer to MacKenzie and Wajcman (1985) who state that technology is characterised by three distinct composites: 1) it comprises artefacts and technical systems; 2) the knowledge of these (i.e., recognising and understanding the tools and systems); and 3) behaviour that occurs in conjunction with the technology – usage, culture, economics, politics etc. (Bijker, 2010).

From a social constructionist perspective, we may observe that technology is not only represented by and within social discourse, but also is constituted through it (Bijker, 2010). That is, via following MacKenzie and Wajcman's (1985) dimensions of knowledge and behaviour within the constituency of technology, it may be observed that social discourse as knowledge, its representation and the behaviour associated with this, are what make technology, technology.

It appears that in colloquial language, often 'technology' is thought of or referred to as digital (information) technology. Thus, digital technology can be considered the dominant technological discourse in the post-industrial (and arguably industrial) international economy. The automatic default to IT in speech and meaning can be viewed as a result of both political and commercial aggression (Kapitzke, 2000). More precisely, the referent is not digital technology per se, but most often a consumer product which contains digital technology in one form or another. For some reason, it is digital technology that seems to have mystical value over all other kinds of technology. The digital halo seems to penetrate to educational discourse with force. In other contexts, educationalists have a high profile in maintaining the academic ideals, like accuracy in the definition of concepts. Whenever digital technology is touched upon, however, the vocabulary is a mishmash of marketing language and educational jargon. For instance, the widely spread concept of "digital learning" is hard to justify. There are at least three possible interpretations of this concept:

1. **Literal Interpretation:** Literally taken, there should be some special kind of learning which is digital by nature. Digital, in turn, means the presentation of data in exact numbers – usually in binary format, in zeros and ones; yes or no. So digital learning would imply – what? That learning either takes place or not?

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