Chapter 2

Teaching Across Time and Space: How University Educators Relate With, and Through, Technology

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ABSTRACT

Technology can be used to bring people closer together yet can also come between them and push them apart. In an age where discourse around our relationship with technology is becoming more widely discussed as problematic, what are the experiences of educators when they use technology for teaching? This chapter discusses influential conceptions of technology and maps them onto digitally mediated teaching. Tensions are identified within the relationships between educator, technology, and learner, and sociomaterial approaches are presented as a means to navigate these areas. Using a research project to demonstrate how sociomaterialism can work in practice, digital teaching was found to be re-distributed over space and time, resulting in consequences, not all of which were intended. This chapter proposes a more interconnected understanding of how people, technology, and learning are enmeshed and makes recommendations for further work that could be done in this area.

INTRODUCTION

The use of digital technologies for teaching and learning could be examined solely from the perspective of pedagogy, and often is, however, the digital context of teaching has an influence on these pedagogies. From instrumentalist assumptions to popular beliefs, educators’ attitudes towards digital technologies shape why and how they use them. These theories, conceptions and beliefs, and the relationship educators perceive themselves to have with technology, all have a role to play in teaching with digital technologies. There are two relevant areas where concepts of technology play out: firstly, how technology is perceived
by scholarship and secondly, what the literature says about educators’ relationships to technology and how these inform their teaching practices. The latter addresses what is known about educators’ own conceptualisation of technology and the former queries the nature of the debate about technology in the literature, and what may be absent in that debate. These two strands have much to tell us about what we have learned and what we have yet to address in relation to digitally mediated teaching.

With technology becoming smaller, and therefore mobile and wearable, human-digital relations appear to be more intimate and anthropomorphic. Tensions arising from an individual’s interaction with technology bring with them not only questions of identity, but also issues of control over time, privacy and attention (Watters, 2016). Relating these tensions to a research project which explored the every-day experiences of university educators, this chapter draws these aspects of technology together and makes an argument for the use of sociomaterial perspectives in examining teaching with digital technologies in universities so to better capture the interconnectedness of their relationships with and through technology.

CONCEPTIONS OF TECHNOLOGY: THE ROLE OF AGENCY

A great deal of research on the educational value of new technologies has thus been buoyed by waves of enthusiasm for the technologies themselves, and has been framed by assertions of the inevitable and pervasive changes that will result from their development. (Hamilton & Friesen, 2013, p. 3)

Technologically determinist and instrumentalist perceptions, whether found in the literature or in everyday discourses around teaching, have a profound but often invisible role to play in teaching with digital technologies; through framing attitudes and beliefs about technology, they directly inform and influence teaching approaches. Technological determinism, in its broadest sense, is the idea that there is an inevitability to the development and consequences of technology, and humans are powerless as both consumers and producers of these technologies (Watson, 2016). Possessing an independent force, technology is seen to control its own progressive trajectory which is beyond human control. Mackenzie and Wajcman recognise how determinism is often framed as a natural law, “the most famous being Moore’s law, describing how the number of components on a state-of-the-art microchip doubles in a fixed, predictable period of time (originally a year; now 18 months)” (1999, p. 1).

The idea that technology is responsible for changing the fabric of society came to the fore during the 19th century. Rapid industrialisation and technological innovations were identified by Marx as the prime influence on society, “The windmill gives you society with the feudal lord; the steam-mill, society with the industrial capitalist” (1975, p. 119). During the twentieth century, McLuhan was one of its more contentious proponents, arguing that technology is an extension of human skill which alters our perception of the world (1967). In particular, he argued that new technology, television at that time, was changing society, not through its content, but through the type of literacy it encouraged; human perception and cognition were being fundamentally changed, as was social interaction and society as a whole (1974). Murphie and Potts find aspects of technological determinism permeate cultural understandings of digital technologies today as found in the phrase, “you can’t stop progress” (2002, p. 11). Indeed, behind newspaper headlines about cyberbullying or ‘text speak’ and its impact on children’s literacy, lie cultural perceptions that digital technologies, not humans, are shaping behaviour and reducing individual agency. In a hard determinist view, society has inevitably changed to the point of existing for, and through, technology to which it is tethered and enthralled. While the above is a simplified synopsis of the more
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