

Learning theories and learning technologies: A tangential history

Walter Barbieri¹

Edward Palmer¹

¹ University of Adelaide

The impact of technology on learning can be charted by a history that spans many centuries. If one focuses on the time period after Gutenberg's press, a proliferation of technologies with classroom applications emerged from a 19th-century context to accelerate in the 20th century. Across this period, learning theories and associated pedagogies have also experienced waves of innovations and developments. This paper investigates how learning technologies and learning theories have developed in tangential ways. It draws connections between the characteristics of innovations in learning technologies – such as radio, television and the internet – and the characteristics of innovations in learning theories – including curriculum development, didactic instruction, behaviourism, cognitivism and constructivism. The historical analysis leads to the proposition that learning technologies have typically been employed in the first instance to serve didactic learning processes and thereafter to serve constructivist learning processes. The authors recommend that the introduction of new learning technologies should coincide with their application to constructivist learning activities in order to expedite their full use.