Creating Awareness around Rhizomatic Principles in mLearning: A Means to Improving Practice

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ABSTRACT
Educational technological innovation to enhance the learning experience of students requires a sound understanding of intended learning outcomes and an understanding of the pedagogical affordances of technology. Literature reveals that an understanding of the application of mLearning in facilitating the achievement of specific learning objectives is limited. This may lead to negative quality perceptions and subsequently have a negative impact on the adoption of potentially rich technological resources. The challenge for educators is to create learning environments based on sound didactical principles. The purpose of this study is to highlight rhizomatic principles in mLearning practice using an integrated research synthesis. This may contribute to creating an awareness of, and a belief in rhizomatic principles in mLearning practice and this in turn may improve their practice. This is based on the premise of the theory of planned behaviour.

KEYWORDS
Mobile Learning, Qualitative Research Synthesis, Rhizomatic Principles, Theory of Planned Behaviour

INTRODUCTION
While mLearning has been in existence for a number of years, as a formalised form of learning, mLearning is relatively new. mLearning began to make its mark as a viable facilitator of individualised learning in the early 2000s (Brown, 2014). Great strides have been made in the field with mLearning initiatives now seen around the world (Ally & Tsinakos, 2014, p. 3). Despite the various mLearning initiatives taking place around the globe, adoption of mLearning is hindered by a number of factors including digital illiteracy (MacCallum, Jeffrey & Kinshuk, 2014) and limited understanding of its possibilities in facilitating the achievement of specific learning objectives. However, the incorporation of potentially learning-enriching mobile technologies can be influenced by the teachers’ belief system regarding teaching and learning strategies. The adoption of technology for teaching and learning is limited by inadequate understanding of pedagogically sound applications of mLearning. While reflection on practice is a viable means to improve quality perceptions of technology, which in turn positively influence practice in the facilitation of mLearning activities, research reveals the existing challenge is to create learning environments based on sound didactical principles (Brown, 2003).

New pedagogies, supported by the affordances offered by mLearning, are emerging. Some of these pedagogies attempt to explain personalised negotiated meaning offered by mLearning. Rhizomatic learning, derived from the work of Deleuze and Guattari (1987), views ideas as multiple, interconnected and self-replicating and having no beginning and end. This belief system calls for educational models that allow for the fluidity of knowledge conception, in a world where cutting edge knowledge becomes obsolete due to the ephemeral nature of the Web (Cormier, 2008).
The purpose of carrying out this research synthesis is to provide a heuristic approach to viewing learning. The intention is not to provide guidelines for employing rhizomatic principles in mLearning, but rather to make practitioners aware of, and believe in, rhizomatic learning processes. This in turn may positively influence their learning facilitation practices. This study explores the findings of qualitative research in the area of mLearning in order to identify existing practices, aligned to rhizomatic principles.

**Mobile Learning**

mLearning provides opportunities for personalised and contextual learning through the affordances of mobile technologies. These affordances allow for contextual and situated learning, the merging of formal and informal learning, personal publishing and sharing. In addition, mobile devices support software that allows for seamless and ubiquitous learning (Brown & Mbati, 2015).

**Theory of Planned Behaviour**

An understanding of decision making processes in the use of mobile technology for teaching and learning may contribute to the adoption of potentially rich mLearning technologies.

One theory that attempts to explain the decision making process is the theory of planned behaviour. The theory posits that behaviour is a result of one’s beliefs regarding the consequences of the behaviour, the subjective norms and expectations of others regarding the behaviour and beliefs about factors that may facilitate or impede the performance of the behaviour (Azjen & Fishbein, 1980). The relationship between one’s beliefs and behaviour is illustrated in Figure 1.

When viewed in the context of this research, the implications of this theory are that the creation of awareness of, and influencing the beliefs of, rhizomatic principles of mLearning may have an impact on the behaviour and practice of mLearning facilitators. The result may include the adoption of mLearning activities that take into account the rhizomatic way in which students may learn in an mLearning environment.

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**Figure 1. Theory of planned behaviour (Ajzen & Fishbein, 1980)**

![Diagram: Theory of planned behaviour](image)
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