# Chapter 32 The Educational Affordances of Mobile Instant Messaging (MIM): Results of Whatsapp® Used in Higher Education

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### ABSTRACT

The popularity of Mobile Instant Messaging (MIM) has prompted educators to integrate it in teaching and learning in higher education. WhatsApp® is a multi-platform instant messaging application widely used worldwide, however, there is still little applied research on its use as a platform for educational activities in management higher education. In this article, the authors present a quantitative and qualitative assessment of a concrete experience of WhatsApp® use that involved 140 undergraduate management students. Data were collected through questionnaires answered by the participants after the end of the experience of use, and also via content analysis of their conversations inside their WhatsApp® groups. The results indicate five main educational affordances of MIM that can be considered in management education: interactivity, knowledge sharing, sense of presence, collaboration and ubiquity. The article also explores the limitations of this tool and provides suggestions of good practices of MIM use for teaching and learning.

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### INTRODUCTION

Mobile learning (m-learning) refers to learning processes supported by the use of mobile technology, whose key feature is the mobility of learners, which may be distant from each other and also from formal education spaces such as classrooms, training rooms, or workplaces (Wang, Wu & Wang, 2009; Ferreira et al., 2013; Fattah, 2015). M-learning is highly situated, personal and collaborative, because individuals can interact with peers (and teachers) using their personal devices, according to their needs, due to the connectivity allowed by mobile technology, in different times and places (Naismith et al., 2004; Ferreira et al., 2013). Previous researchers have explored the affordances of m-learning (Looi et al., 2009; Liaw et al., 2010; Ferreira et al., 2013; Sabah, 2016; Turner, 2016).

Affordance is the relational nature of technology and user interaction. Educational affordances are defined as characteristics of an educational resource that indicate if and how a particular learning behavior could possibly be enacted within the context under consideration (Bower & Sturman, 2015). It is an important concept to understand the adoption of Information and Communication Technology (ICT) in education since it is centered on the users' perceptions, in what they realize as possibilities and potentials of technology in helping them to learn.

Mobile Instant Messaging (MIM) applications can also be used in m-learning practices (Zydney & Warner, 2016), making it more interactive and engaging (Shen, Wang & Pan, 2008; Gan & Balakrishnan, 2017). MIM is a global phenomenon; it has evolved rapidly, and has amassed millions of users, allowing them to send and receive messages, pictures, videos, and audios for free, and most of them (e.g.: Kakao-Talk, WhatsApp®, and LINE) work on practically every smartphone and mobile platforms (Oghuma et al., 2016). They also provide information about the status of users and support synchronous interactions, which is useful to allow for intimate contact and sense of presence (Rambe & Bere, 2013; Tang & Hew, 2017)).

Considering that, higher education institutions have started adopting mobile technology to cope with their students' needs and expectations (Han & Shin, 2016; So, 2016). WhatsApp® is an MIM application that has been widely used worldwide, and has no cost to be used, only depending on access to a smartphone with an Internet connection. Created in 2009, WhatsApp® has reached 1 billion users worldwide in 2016. However, there is still little research on the educational affordances of MIM - such as Whatsapp® - in higher education. Even m-learning as a broader concept is a relatively recent phenomenon; researchers found mixed results regarding the effects of mobile devices for education, and few studies have addressed best practices in the use of mobile devices for teaching and learning, and the effectiveness of these practices (Sung, Chang & Liu, 2016).

Most of the research participants in m-learning research belong to primary and secondary schools, with fewer data about m-learning practices in undergraduate and graduate courses (Sung et al., 2016). So (2016) shows results on the use of WhatsApp® as an m-learning tool in higher education in China, encouraging further investigation on this issue in other academic contexts, because many educators are still more comfortable using computers as their main platform for teaching. Besides that, the majority of the studies on this issue are based either only in structured surveys or controlled experimental research (Fattah, 2015). There are few studies that explore WhatsApp® use in the natural environment of higher education (such as the works of Bouhnik & Deshen, 2014 and Willemse, 2015). Therefore, this study intends to complement the literature on the use of WhatsApp® in higher education in this perspective, since we applied and evaluated the use of it in everyday activities (such as solving doubts, sharing information or sending alerts about assignments, among others) in real management undergraduate courses – we have not found previous studies in this area.

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