Chapter 15

The Contribution of the Technology Acceptance Model for an Active Teaching and Learning Process in Higher Education: A Bibliometric Analysis

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ABSTRACT

Building up a more engaging and active teaching and learning experience is now crucial to face the challenges that the profile of today’s digital learner requires. The relevance of digital technology in the educational field cannot be denied as many studies have been conducted and many frameworks have been developed trying to understand the advantages that digital tools can bring to education. This chapter presents a bibliometric analysis of scientific articles indexed at Scopus from the previous 10 years related to the use of the Technology Acceptance Model (TAM) in higher education. This resulted in the identification of the perspectives, digital technologies, methodologies, and developments in this field of research. It was possible to verify that the studies are more focused on the acceptance of technology from the perspective of the students and not so much on the perspective of the teachers. Along with the perceived ease of use and usefulness, self-efficacy is another variable to consider when accepting using technology.

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INTRODUCTION

In today’s society, one of the Higher Education Institutions’ priorities is to form professional citizens sustained with values and competences that make them able to face and overcome the real-world challenges, and with it, learning to learn throughout life. In this context, it is increasingly important to engage and keep students’ proactive in their learning process, fostering their learning behaviour and creating meaningful learning activities.

In a scenario where the dependence on digital technology is increasing in society, and that is also reflected in education, defining the key-factors that influence students’ digital technology usage is now crucial (Raza, Umer, Qazi, & Makhdoom, 2018; Tarhini, Hone, Liu, & Tarhini, 2017). Digital literacy has become the designated aim of education in order to make students digitally literate citizens who can cope with the complexities and dynamics in the digital era (Fraillon, Ainley, Schulz, Friedman, & Gebhardt, 2014).

Some authors report that studies made about teaching practices that involve digital environments in higher education are a trend for increasing the effectiveness of students’ education (Stanley, 2013), as many of them are seeking for active teaching and learning strategies that will transform students from passive into active participants of the learning process in the digital era (Eastman, Iyer, & Eastman, 2011; Poellhuber, St-laurent, & Roy, 2018).

It’s noticeable that students can use digital technologies in a way that can enhance their learning experience and new requirements to deal with digital learners’ profile were imposed (Kiryakova, Angelova, & Yordanova, 2018). The digital learners profile is sometimes perceived for being constantly online, for constant interactions, for making fast decisions and for using different media (Gurung & Rutledge, 2014; Ossiannilsson, 2018). Some authors point out how these digital learners prefer a digital learning environment, and how they positively cope with the growing use of mobile devices and social media networks for academic purposes, but also their need for constant and instantaneous feedback on their learning process (Hanif, Jamal, & Imran, 2018). However, digital learners may lack some essential academic skills related to technology as their learning engagement with digital technologies sometimes is limited, sporadic and often limited to basic usage, such as gaming, texting and social networking, with less involvement in producing and sharing of self-created content, being, mostly, ordinary and basic digital users (Livingstone, 2009; Luckin et al., 2009). This lack of ability to use emerging digital technologies in a way that can create meaningful and active learning experiences for academic purposes can and should be triggered as a focus of an effective use of technology in the learning process. Nowadays, understanding the evolution and the contexts where digital technology is being applied is extremely relevant, specially, when it simultaneously contributes to a more active, involved, or even fun teaching and learning process. Also, as Chisholm (2013) stated “the configuration of digital learning worlds is based on mixed – blended – modalities of acquisition, transmission, participation and engagement.” (p. 70). To successful combine the relation between these four modalities it is required to have an active teaching and learning approach. These mixed modalities will develop and reinforce learners’ skills such as: critical reflection, autonomy, empowering and independence while learning to learn throughout life.

Digital technology is already, and its tendency is to increase, part of the daily routine of students and teachers, so to understand how it is perceived and accepted by them is and should be a focus of interest and research. It’s also important to have a wide view on which strategies Higher Education Institutions are coming up with to face the digital learners’ profile as many of today’s higher education students were born or grew up surrounded by digital technologies. For example, the production on user-generated