Chapter 2

Augmented Reality as a Search System in Libraries

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**ABSTRACT**

The technology has now ventured into multiple educational environments. The case of augmented reality has served to create new digital environments of search that help the location of any physical reference in a public library. In these educational spaces, it is important to have information resources that are innovative and, simultaneously, which motivate the users to enter them. For physical learning resources, these informative tools must provide a fast and efficient inquiry/location. Augmented reality helps this location by showing, through digital content, the three-dimensional space (3D) of that location, highlighting categories and classifications of physical references so that, in turn, the user able to visualize it, using a mobile device, and is therefore directed to the exact place of the location in a relatively short time. Thus, this study shows that the application of new technologies in a public library can make the user feel immersed in a new learning environment, which is transmitted through a digital environment through augmented reality.

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INTRODUCTION

Changes in technology are more than evident and there is no doubt that the dynamics between human beings and technology has been invested with the passing time. So much so that today human beings must assimilate quickly the so-called new technologies rather than they are adapted to the needs of human beings. In other words, the human being has become a co-dependent entity of new technologies, regardless of any technological innovation to meets their needs in specific. However, the benefits of technological advances are also more than evident. The life that we lived in the 21st century is, by far, easier life, for example, of 100 years ago. This is due, no doubt, strides with that have been advancing both the science and the technology.

In this sense, everyday life has also been transformed with the proliferation of new technologies. Just to mention two examples, there are now countless establishments that allow you to make purchases only using a telephone connected to the internet worldwide (Agrebi and Jallais, 2015; Reyes, Olmos and Hernández, 2016). Moreover, some of these establishments have the service of bringing such purchases to the door of the home (Bulearca and Tamarjan, 2010). Similarly, and also with a telephone connected to the internet, can be countless payments from the comfort of home (no doubt, the banking institutions have facilitated and promoted such changes in our lives).

Of course, learning (which is nothing more than the process of learning) in educational institutions has also changed and has had to adapt, little by little, these technological changes (Zhou, Duh and Billinghurst, 2008; Yu, Jin, Luo and Lai, 2010; Hugues, Fuchs and Nannipieri, 2011). It is currently difficult thinking that a young student does not have access to a smart phone, a tablet or any other mobile with internet access. The great diversity of these new technologies and their most affordable allow its approach to contemporary generations of students, including, and in some countries or regions, at an early age. The way to learn these new generations of students had to adapt to these changes in technology and the need to create new educational environments is now already a reality (Greenfield, 2009; Yang, 2011; Wu et al, 2013). In this sense, technological development has shown multiple advances as support for the strategies of learning-learning, this progress every day is exceeded by more efficient technologies and whose mission is to serve as support to students and teachers interested in the generation of a new educational process (Azuma et al, 2001; Tanner, Karas and Schofield, 2014).

Educational technologies are transmitted (embedded) through different devices and media, same that have earned the Internet, mobile devices, cyber cloud and various technological objects to create a more efficient way in the long road of learning (Bacca et al, 2014). For this context, Augmented Reality (AR) has emerged

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