Virtual Reality and Augmented Reality in Organizational Culture Management: A Systematic Review of the Literature and Online Content Analysis

Correia, T.¹, Carneiro, A.¹, Costa, D.¹, Ferreira, P.^{2,3}, Figueiredo, C.¹, Lopes, L.¹, Marques, A.⁴, Meirinhos, V.³, Rodrigues, A.C.³, Santos, M.¹, Seixas, D.¹, Silva, M.¹, Torres, M.¹, Valente, M.¹

The "virtual" concept emerges every day in an increasingly technological and globalized world, in which we keep seeking new and different ways of communicating and interacting. New technologies are gaining in importance as a result of convergence of crafts and techniques, such as photography, the three-dimensional image, the video or audio or augmented reality and it is this diversity of solutions that can result in more complete and stimulating interpretive experiences (Conceição, 2012).

Virtual Reality arises, with an extreme impact on organizations, since the last decade, not only as an instrument of immersion, with game-like characteristics, in order to improve the production and performance processes, but also as a mechanism focused on employees and their identification with organizational culture. Unlike the tools commonly used in the web 2.0, Virtual Reality technology allows the creation of virtual and immersive environments, thus enabling organizations to promote their culture, starting from visual and auditory representations, that are capable of involving employees in what the organization wishes to transmit as its core values and beliefs. Thus, the challenge is to create a way that promotes an understanding of "how do we work here" and "how should we behave".

The project *HR Powered by VR* comes within the scope of an academic project whose general objective is to identify the potentialities of Virtual Reality and Augmented Reality in the Management and Development of Human Resources and, particularly, understand the capabilities of the technology of Virtual Reality and Augmented Reality in order to increase in Organizational Culture Management.

For this conference, we propose to address the first and second phases of this focus on the essential points of each of them. In a first step, the methodological path chosen is a

¹ ISCAP, Polytechnic of Porto

² University Portucalense

³CEOS.PP / ISCAP / P.Porto

⁴School of Health, Polytechnic of Porto

systematic review of the literature and, in a second, an analysis of the available online content related to the theme.

In this sense, the collection of scientific information was done through the Scientific Repository of Open Access of Portugal (RCAAP) and the General Directorate of Education and Science Statistics (DGEEC), in order to be able to identify and analyze what is being studied and developed in Portugal, with regard to this area of research. Another of the outlined strategies was the usage of sources of scientific information such as the Scopus and ISI Web Of Science databases, with the primary objective of obtaining reliable and relevant studies. In each of these sources, we used 17 pairs of specific terms related to the theme.

From the second stage, on the analysis of available online content on the subject of Virtual Reality and Management of Organizational Culture, the specific objective for knowing the solutions and developments of Virtual Reality and Augmented Reality in Organizational Culture Management. For this second phase, the same pairs of research terms of the first phase were used. Different research filters were applied to determine the most relevant results for the study.

After the collection and analysis of the duly selected terms, these were revised in a peer-to-peer way and by 3 judges that have applied specific exclusion criteria, thus obtaining the results of the analysis. Among the criteria used is the following: the most studied and quoted authors, the type of documents obtained, the type of studies, the methodologies applied, the scientific productions, the research sectors, the resources mobilized, the different target audiences and the impact of each one within the academic and professional environment.

Key words

Virtual Reality, Augmented Reality, Human Resources Management, Organizational Culture, Systematic Literature Review, Online Content Analysis