

AN ANALYSIS OF INFORMATION AND COMMUNICATION TECHNOLOGIES APPLIED IN THE MUSEUMS OF BRAȘOV, ROMANIA

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ABSTRACT

This paper offers a case study-based analysis of Information and Communications Technologies (ICTs) implemented in the museums located in the city of Brașov, Romania. Through direct, on-site observation conducted in several key cultural institutions within the city, the study examines the types of digital tools used in museum environments. The research focuses on how technologies such as interactive displays, digital kiosks, virtual tours, and mobile applications contribute to visitor accessibility, and educational functions. While some museums have successfully incorporated digital elements into their exhibits and outreach, others remain limited by infrastructural and financial constraints. Based on the findings, the paper outlines practical recommendations for enhancing ICTs use in Brașov's museum sector. This case study contributes to the broader discourse on digital transformation in the cultural sector and offers insights for museum professionals, local authorities, and technology providers seeking to support innovation in cultural heritage interpretation.

Keywords: Information and Communication Technologies (ICTs), cultural heritage, museum, Brașov, Romania

INTRODUCTION

The museum experience has been profoundly influenced in recent years by advances in information and communication technologies (ICTs). They have revolutionized the way museums promote their exhibitions and interact with visitors, offering a wide range of innovative tools to improve the viewing experience and accessibility of information. The integration of new ICTs within museums, institutions for the preservation and transmission of cultural and historical knowledge, represents a significant transformation in the way museums interact with visitors (Kuflik, et al., 2015 [10]). The implementation of new ICTs should not replace traditional experiences and complement them (Elgammal et al., 2020 [4]).

Virtual reality is a fully digital, computer-generated environment that users can interact with, typically accessed through a computer that is capable of projecting 3D information through a display, which can be stand-alone screens or wearable displays, such as head-mounted displays, along with sensors to identify the user (Hamad and Jia, 2022 [9]). It can increase audience engagement, improve education, and build immersive museum environments. Virtual reality can also be used for immersive first-person narratives or “body swapping” experiences (VR), where users can virtually experience someone else's perspective or put themselves in their shoes, making virtual reality a powerful tool for conveying emotions and developing empathy in visitors.