

Online Three Dimensional (3D) Touring for the City Museum of Cagayan de Oro and Heritage Studies Center using Roblox Studio

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Abstract

A 3D tour is an interactive and immersive experience that allows users to explore spaces remotely using digital platforms. 3D tours have become increasingly important for disseminating cultural and historical knowledge. Roblox Studio, a versatile game development platform, can create engaging and accessible 3D tours using information and communication technology. Currently, there is no dedicated online 3D touring system for the City Museum of Cagayan de Oro and Heritage Studies Center. Visitors can only access limited information and static images of the museum exhibits through the museum's website or other online platforms, resulting in a lack of interactive and immersive virtual tours that provide an engaging experience for users to explore the museum's artifacts and learn about its rich cultural heritage. This developmental research aimed to create an online 3D touring system for the City Museum of Cagayan de Oro and Heritage Studies Center using Roblox Studio, addressing the aforementioned limitations. The study involved the design and development of a virtual museum environment, with subsequent evaluation of user engagement and learning outcomes. The waterfall model was used in the design process, while the Lua scripting language was used for programming. A pilot test with a selected group of users provided valuable feedback for further refinement. In conclusion, this research highlights the potential of Roblox Studio and online 3D tours for promoting cultural heritage preservation and enhancing accessibility to historical resources.