

Gamification-Based Augmented Reality for Cultural Heritage Transmission: A Case Study from the Istanbul Toy Museum

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Abstract:

This study examines how an application combining gamified storytelling with augmented reality (AR) can be used as an effective tool for cultural heritage transmission in a museum context. Five toys of varying historical significance (Masuyama, Felix the Cat, Spirit of St. Louis airplane, a traditional dollhouse, and a Steiff bear) were selected from the Istanbul Toy Museum's collection. Through archival research and interviews with museum curators, interactive, narrative-driven gamified AR scenarios were designed, incorporating the socio-cultural history, physical characteristics, and historical aspects of each object.

This study highlights the role of gamification and AR in enhancing interaction and visitors' understanding of intangible heritage. For example, an AR experience featuring Felix the Cat and Spirit of St. Louis recreates a transatlantic voyage symbolizing early 20th-century media and aviation culture through gamification.

The findings indicate that participants responded more positively to presentations using a gamified AR app featuring interactive narratives compared to static presentations. The app also appears to facilitate better knowledge transfer and contribute to the preservation of historical context. This research highlights the potential of gamified AR as a tool not only to enhance museum experiences but also to preserve and revitalize cultural memory in a fun and engaging format aligned with sustainable cultural tourism goals.

Keywords:

Gamification, AR, Istanbul Toy Museum, Cultural Heritage.