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## **Hybridising Museum Practices: Proposed Design Guidelines** for Hybrid Museums

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**Abstract**. According to advancements in this century, technology has transformed the way cultural institutions operate, particularly within the museum sector. It is being integrated into hybrid museums to enhance the experiences of various generations, improving their engagement levels. Hybrid museums blend physical and digital environments by incorporating tools such as Extended Reality (XR), touchscreens, holograms, projection mapping, gamification platforms, digital guides and panoramic displays to create immersive experiences that engage visitors innovatively. Despite the growing acceptance of technology and its positive influence on audiences, Egyptian museums present a limited integration of digital tools in museums, restricting their development in this domain. Hence, the aim of this research is to develop comprehensive design guidelines for hybrid museums, enhancing the immersive experiences of visitors and paving the way for future museum innovations in Egypt. A mixed-methods approach, combining quantitative and qualitative methods, was employed. Previous literature reviews were examined to identify effective digital tools for hybrid exhibitions and the design features supporting their integration. As a result, design guidelines were developed and subsequently validated through the authors' onsite observation of hybrid museum design elements, followed by observational case study analysis of a museum in Dubai as a country in the Arab Region.

**Keywords**: Hybrid Museums; Digital Tools; Design Guidelines; Museum Digital Transformation; Interactive Museum Tools; Museum Digitization; Museum Hybridization

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