

EXPLORING AI USER EXPERIENCE AND INDUSTRY 4.0 IN CULTURAL TOURISM: QUALITATIVE ANALYSIS OF MULTIPLE STAKEHOLDER PERSPECTIVES

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1. Introduction

Tourists visit cultural places significantly more than other tourist destinations. The tourism industry converted from product-focused to experience-centric. Therefore, implementing modern technologies in cultural places can provide visitors with quality and effective personalized experiences. The research aims to examine critical technologies implementing AI and Industry 4.0 and explore how AI-driven experiences affect visitors' engagement and enjoyment and successful stakeholders' utilization of AI technologies in cultural tourism.

2. Research Methodology

Data was collected from face-to-face interviews using different protocols with nine industrial experts, including tourists, guides, IT managers, a tourism board director, and a telecommunications analytics head. Decisions were based on data saturation in qualitative research and interpretivism. A purposive sampling technique was used, and thematic analysis was used supported by NVivo software.

3. Findings and Discussion

The findings showed that AI and Industry 4.0 can provide personalized experiences and satisfaction using modern technologies consisting of real-time feedback, mobile applications, 3D models, and VR. AI can also apply repetitive tasks and decision-making processes, such as data-driven and automated repetitive tasks, to improve operational efficiency.

4. Conclusion and Implications

Researchers spotlight how mixed AI and Industry 4.0 technologies can improve cultural tourism in Sri Lanka. By prioritizing engagement and satisfaction for stakeholders by creating personalized experiences, interactive storytelling, and better access, tourist engagement and satisfaction can increase significantly. Findings show that using AI increases a deeper cultural connection and re-visits. The study recommends improving AI and infrastructure and collaborating with cultural experts and IT managers to promote cultural tourism for sustainable growth.

Keywords: Artificial intelligence, Cultural tourism, Industry 4.0, User experience