

Exploring User Perceptions From The User-centered Usability Perspective of The Museum Online Virtual Exhibitions

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Abstract. Users' perceptions of online museums' virtual exhibitions still need vivid exploration, public museums are increasingly adopting technological innovations for online virtual exhibitions, but further studies are required to understand how audiences and users respond to them. This preliminary research study aimed to explore users' perceptions of the museum's online virtual exhibition from the user-centered usability perspective, which refers to the process of evaluating products and services based on their usability for users. In this study, we put forth a conceptual and theoretical framework to guide our investigation and employed descriptive statistics and factor analysis. The analysis identifies two key factors, F1 and F2, that influence users' perceptions and reveal their relationship with the examined factors. Factor 1 (F1) reflects user experience (0.612), user ease (0.754), user satisfaction (0.580), and user expectation (0.551) from Scale 1. While displaying an inverse relationship with Scale 2-5 items, including impact on the user (-0.881), user attitude (-0.732), user satisfaction (-0.881), and usefulness of techs (-0.634). Factor 2 (F2) exhibits high loadings for user overall experience (0.930) and user experience of virtual tools (0.657) from Scale 1. These findings indicate the significant influence on how users perceive the experience of the museum's online virtual exhibition. Thus, a comprehensive approach integrating user-centered usability perspectives, user perceptions, and technological innovations, is essential for creating an optimal public museum's online virtual exhibition experience under the transdisciplinary engineering principles.

Keywords. User-centered usability evaluation, Virtual exhibition, Online museum. User perceptions, User-centered usability perspective.

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