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Assessing Mobile Robotic Telepresence Based On Measures of Social Telepresence

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Abstract : The feedbacks obtained regarding the sense of presence from pilot users operating a Mobile Robotic presence (MRP) system to visit a simulated museum are reported in this paper. The aim is to investigate how much the perception of system's usefulness and ease of use is affected by operators' sense of social telepresence (presence) in the remote location. Therefore, scenarios of visiting a museum are simulated and the user operators are supposed to perform some regular tasks inside the remote environment including interaction with local users, navigation and visiting the artworks. Participants were divided into two groups, those who had previous experience of operation and interaction with a MRP system and those who never had experience. Based on the results, both groups provided different feedbacks. Moreover, there was a significant association between user's sense of presence and their perception of system usefulness and ease of use.

Keywords: mobile robotic telepresence, museum, social telepresence, usability test

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