Consumer Reactions to Hospitality Social Robots Across Cultures

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Abstract : To address customers' safety concerns, more and more hospitality companies are using service robots to provide contactless services. For many companies, the switch from human employees to service robots to lower the contagion risk during and after the pandemic may be permanent. The market size for hospitality service robots is estimated to reach US\$3,083 million by 2030, registering a CAGR of 25.5% from 2021 to 2030. While service robots may effectively reduce interpersonal contacts and health risk, it also eliminates the social interactions desired by customers. A recent survey revealed that more than 60% of Americans feel lonely during the pandemic. People who are traveling can also feel isolated when they are at a hotel far away from home. It is therefore important for the hospitality companies to understand whether and how social robots can remedy deprived social connection not only due to a pandemic but also for a trip away from home in the postpandemic future. This study complements extant hospitality literature regarding service robots by examining how service robots can forge social connections with customers. The service robots we are concerned with are those that can interact and communicate with humans; we broadly refer to them as social robots. We define a social robot as one that is equipped with interaction capabilities - it can either be one that directly interacts with the consumer or one through which the consumer can interact with other humans. Drawing on the theories of mind perception, we propose that service robots can foster social connectedness and increase the perception of social competence of the robot, but these effects will vary across cultures. By applying theories of mind perception and cultural dimension to the hospitality setting, this study shows that service robots that are equipped with social connection function will receive a more favorable evaluation from the consumers and enhance their intention to visit a hotel. The more favorable reaction to social robots is stronger for collectivists (i.e., Asians) than individualists (i.e., Westerners). To our knowledge, this is among the first studies to investigate the impact of culture on consumer reactions to social robots in the hospitality and tourism context. Moreover, this research extends the literature by examining whether people imbue non-human entities (i.e., telepresence social robots) with social competence. Because social robots that foster social connection with humans are still rare in hospitality and tourism, this aspect is an underexplored research area. Our study is the first to propose that, just like their human counterparts that possess relevant social skills, social robots' interaction capabilities (e.g., telepresence robots) are used to infer social competence. More studies will be conducted to examine consumer reactions to humanoid (vs. non-humanoid) robot in the hospitality settings to generalize our research findings.

Keywords : service robots, COVID-19, social connection, cultures

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1

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