

(15) Effects of Interactivity and Expressiveness on Perceived Social Presence, Memory and Persuasion in Interactive Health Communications

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Abstract

This experiment primarily focused on how media variables such as interactivity and agent emotional expressiveness affected user's perception of social presence of the computer agent. Secondly, we were interested in exploring how interactivity and expressiveness affected the user's memory, attitude, and behavioral intention to a health communication message.

Effects of interactivity and expressiveness on social presence and persuasion

This study employed animated intelligent characters to guide young adult users ($N = 124$) in a drunk-driving prevention program. This 2x 2 between subject experiment resulted in no interaction effect between variables. Overall, users who encountered an emotionally expressive agent perceived higher levels of social presence of the agent. Out of the nine factors composing social presence, users felt higher levels of mutual awareness, understanding, and more empathy and felt a strong sense of expressive animated agent's behavioral dependency on them. Meanwhile, interactive media users felt higher levels of mutual awareness between themselves, the agent and others respectively. They also felt higher levels of mutual understanding and animated character's behavioral dependency on them. Surprisingly, participants lacking two-way interaction with the animated character also felt high level of empathy. This phenomenon mirrors para-social relationships in traditional media, as when television audiences react to TV personae.

Interactive media fared better in facilitating learning health materials, while expressiveness did not figure significantly in learning. For attitude change, as the pre and post attitude score did not differ significantly, it is possible that there was a "ceiling effect" given that the pre-attitude scores strong. As attitude and behavioral intention may be highly linked when the subject is of high involvement, it is not surprising that neither variable had significant impact on behavioral intention.