

## **An Exploratory Study of the Effects of Head Movement on Engagement within a Telepresence Environment**

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**Abstract :** Communication takes place not only through speech, but also by means of gestures such as facial expressions, gaze, head movements, hand movements and body posture, and though there has been rapid development, communication platforms still lack this type of behavior. We believe communication platforms need to fully achieve this verbal and non-verbal behavior in order to make interactions more engaging and more efficient. In this study we decided to focus our research on the head rather than any other body part as it is a rich source of information for speech-related movement. Thus we aim to investigate the value of incorporating head movements into the use of telepresence robots as communication platforms; this will be done by investigating a system that reproduces head movement manually as closely as possible.

**Keywords :** engagement, nonverbal behaviours, head movements, face-to-face interaction, telepresence robot

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