Using Motion Capture Technology in the Study of Non-verbal Communication

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Abstract

Production in visual non-verbal communication has been studied with the use of various research methods, both qualitative and quantitative. Whereas the former approach investigates the meaning and the structure of a gesture or a pantomime, the latter attempts to characterise low-level motion features in the production of visual non-verbal communication. In this presentation, we focus on the quantitative approach to the study of non-verbal behavior: we compare it with quantitative methods, highlighting main differences between the two approaches, present an overview of previous quantitative research methods, and identify the shortcomings of those methods. Finally, we propose a new method of studying non-verbal communication, which involves the application of motion capture systems, especially ones based on Inertial Measurement Units.

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